

*my* **IPS**



# COURSE CATALOG



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# GENERAL INFORMATION

# Welcome to the spring registration process for the school year.

The Indianapolis Public Schools High School Registration Guide contains information needed to register and is designed to help you and your parents/guardians make the best choices for your high school education. You'll discover many exciting high school options in this book. Read through it carefully.

It is especially important that you talk with your counselor and parents/guardians concerning your course selections. Choices that you make in high school affect your options for study and career after graduation, so please give serious consideration to your course choices. In order to earn a high school diploma you must meet all course, credit and test requirements of at least one course of study. These courses of study are designed by the state to prepare students for a multitude of post-high school opportunities from entry-level careers to highly technical studies at community colleges, colleges and universities. You are encouraged to select the most challenging course of study in which you can be successful.

## REGISTRATION IS A COMMITMENT

**to take the courses you have selected. Remember, when you complete your course selection sheet you are requesting a specific course, NOT a specific teacher, time or place. Every effort will be made to grant your requests. You may choose the courses you would like to take in the next school year; however, your schedule may change pending final grades in the courses you are currently taking and your End-of-Course Assessments (ECA) scores.**

## Steps for Completing the Registration Process

Your high school classes should be selected based on your career and educational aspirations. Careful four-year planning will give you a challenging class schedule that meets all requirements and allows opportunities to explore your interests.

- Study the General Information section of this registration guide. Identify the requirements for graduation by reviewing the charts included.
- Read the course descriptions for required courses and electives in which you are interested, and make certain you meet the prerequisite requirements.
- Use the High School Plan developed by you and your counselor to select the courses you want to take.
- Talk with your school counselors for help in determining the courses you need. Meet with your counselor to make your course selections on your Course Selection Sheet.
- Have your parent/guardian double check your selections to ensure you have requested the courses you need.
- Return the course selection sheet to the school after you and your parent/guardian have signed it. Be sure to return it by the deadline designated.

The information provided in this book is current at the time of printing. It is recommended that you work closely with your school counselor during the registration period to be aware of any changes.

**IMPORTANT**...Registration is the student's opportunity to request appropriate courses. Alternates should be chosen very carefully and will be considered part of the student's final selection of courses.

## Graduation Requirements (Beginning 2016)

| General Diploma<br>(Requires Principal Approval)   | Core 40 Diploma<br>(Default Diploma)  | Core 40 with Academic<br>Honors Diploma (AP/DC)   | Technical Honors Diploma  |
|--|---|---|---|
| <b>English</b> – 8 credits   | <b>English</b> – 8 credits  | <b>English</b> – 8 credits  | <b>English</b> – 8 credits  |
| <b>Mathematics</b> – 4 credits<br>(earned in HS)<br><b>2 credits: Algebra 1</b><br>2 credits: Any Mathematics course<br>(2016) Students must earn<br>credit in their Junior and Senior<br>years in either Mathematics or<br>Quantitative Reasoning Courses | <b>Mathematics</b> – 6 credits<br>(earned in HS)<br><b>2 credits: Algebra I</b><br>2 credits: Geometry<br>2 credits: Algebra 11<br>(2016) Students must have<br>Mathematics or a Quantitative<br>Reasoning course every year in<br>high school  | <b>Mathematics</b> – 8 credits<br>(earned in HS)<br><b>2 credits: Algebra 1</b><br>2 credits: Geometry<br>2 credits: Algebra 11<br>2 credits: Pre-Calculus or Calculus<br>(2016) Students must have<br>Mathematics or Quantitative<br>Reasoning course every year in<br>high school   | <b>Mathematics</b> – 6-8 credits<br>(earned in HS)<br><b>2 credits: Algebra I</b><br>2 credits: Geometry<br>2 credits: Algebra 11<br>(2016) Students must have<br>Mathematics or Quantitative<br>Reasoning course every year in<br>high school  |
| <b>Science</b> – 4 credits<br><b>2 credits – Biology I</b><br>2 credits – Any Science Course   | <b>Science</b> – 6 credits<br><b>2 credits: Biology I</b><br>2 credits: Chemistry I,<br>Physics I, or Integrated<br>Chemistry/Physics<br>2 credits: Additional credits<br>in Chemistry, Physics, Earth<br>and Space Science, Advanced<br>Biology, Advanced Chemistry,<br>Advanced Physics, or Advanced<br>Environmental Science | <b>Science</b> – 6-8 credits<br><b>2 credits: Biology I</b><br>2 credits: Chemistry I,<br>Physics I, or Integrated<br>Chemistry/Physics<br>2 credits: Additional credits<br>in Chemistry, Physics, Earth<br>and Space Science, Advanced<br>Biology, Advanced Chemistry,<br>Advanced Physics, or Advanced<br>Environmental Science | <b>Science</b> – 6-8 credits<br><b>2 credits: Biology I</b><br>2 credits: Chemistry I,<br>Physics I, or Integrated<br>Chemistry/Physics<br>2 credits: Additional credits<br>in Chemistry, Physics, Earth<br>and Space Science, Advanced<br>Biology, Advanced Chemistry,<br>Advanced Physics, or Advanced<br>Environmental Science |
| <b>Social Studies</b> – 4 Credits<br><b>2 credits: U.S. History</b><br><b>1 credit: U.S. Government</b><br>1 credit: Any Social Studies<br>Elective  | <b>Social Studies</b> – 6 credits<br>2 credits: World History or<br>Geography/History of the World<br><b>2 credits: U.S. History</b><br><b>1 credit: U.S. Government</b><br>1 credit: Economics   | <b>Social Studies</b> – 6 credits<br>2 credits: World History or<br>Geography/History of the World<br><b>2 credits: U.S. History</b><br><b>1 credit: U.S. Government</b><br>1 credit: Economics   | <b>Social Studies</b> – 6 credits<br>2 credits: World History or<br>Geography/History of the World<br><b>2 credits: U.S. History</b><br><b>1 credit: U.S. Government</b><br>1 credit: Economics   |
| <b>Physical Education</b> – 2 credits  | <b>Physical Education</b> – 2 credits   | <b>Physical Education</b> – 2 credits   | <b>Physical Education</b> – 2 credits   |
| <b>Health Education</b> – 1 credit   | <b>Health Education</b> – 1 credit  | <b>Health Education</b> – 1 credit  | <b>Health Education</b> – 1 credit  |
| <b>Fine Arts</b> – 2 credits   | <b>Fine Arts</b> – 2 credits  | <b>Fine Arts</b> – 2 credits  | <b>Fine Arts</b> – 2 credits  |
| <b>Career Area</b> – 2 credits<br>Encouraged   | <b>Career Area</b> – 2 credits<br>Encouraged  | <b>Career Area</b> – 2 credits<br>Encouraged  | <b>Career Area</b> – 6 credits in a<br>state-approved College and<br>Career Pathway resulting in<br>6 college credits or industry<br>certification  |
| <b>Foreign Language</b> – 2 credits<br>Encouraged  | <b>Foreign Language</b> – 2 credits   | <b>Foreign Language</b> – 6 credits<br>in one language or 4 credits in<br>two languages   | <b>Foreign Language</b> – 2 credits   |
| <b>*Electives</b> – 13-19 credits  | <b>*Electives</b> – 8-10 credits  | <b>*Electives</b> – 8-12 credits  | <b>*Electives</b> – 8-12 credits  |
|  |   | Either 4 credits Advanced<br>Placement, dual credits equaling<br>6 college credits, or 4 IB credits<br><br>SAT of 1750 (minimum 530<br>each area) or ACT of 26  | Any of the AHD requirements<br>or Acceptable Work Key,<br>Compass, or Accuplacer Scores   |
| <b>42 CREDITS (minimum)</b>  | <b>42 CREDITS (minimum)</b>   | <b>47 CREDITS (minimum)</b>   | <b>47 CREDITS (minimum)</b>   |



# REGISTRATION/RECOMMENDATION FORM

\*Example Only\*

Name: \_\_\_\_\_  
(Last) (First) (MI)

Grade Level: \_\_\_\_\_

Career Concentration: \_\_\_\_\_

Name of Parent(s)/Guardian: \_\_\_\_\_

Address: \_\_\_\_\_ Email: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Mother: \_\_\_ Father: \_\_\_

General Directions: \_\_\_\_\_

- Select six courses. In addition, list three alternate courses in order of preference that are different from your original six selections. Alternates will be determined in priority order from these three courses.
- If this form is incomplete or has not been returned by the designated time, counselors will select your courses upon review of your high school plan.
- Course selections are FINAL.

|                 | Student's Course Selection<br>(Please Print) | Student-Parent/Guardian<br>Final Course Selection<br>(Please Print) | Office Use<br>Only<br>Course # |
|-----------------|--|---|--------------------------------|
|                 | Name of Course/Course Number                 |   |                                |
| English         |  |   |                                |
| Mathematics     |  |   |                                |
| Science         |  |   |                                |
| Social Studies  |  |   |                                |
| Fifth Course    |  |   |                                |
| Sixth Course    |  |   |                                |
| Seventh Course* |  |   |                                |
| Eighth Course*  |  |   |                                |
| Alternate #1    |  |   |                                |
| Alternate #2    |  |   |                                |
| Alternate #3    |  |   |                                |

We have read the registration materials and have selected next year's courses carefully. We have reviewed the diploma requirements and other requirements for graduation located in the Registration Book. We have also reviewed and understand the policies regarding schedule changes.

PARENT/GUARDIAN SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

STUDENT SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

COUNSELOR: \_\_\_\_\_ DATE REVIEWED: \_\_\_\_\_



# FOUR-YEAR HIGH SCHOOL COURSE PLAN

\*Example Only\*

Based on your career and high school diploma plan, list the courses you plan to take. Request the help of your counselor to ensure you take the right classes to graduate from high school prepared for college and career.

| 9th Grade            |     |       |                      |     |       |
|----------------------|-----|-------|----------------------|-----|-------|
| First Semester       | ECA | Grade | Second Semester      | ECA | Grade |
| English 9            |     |       | English 9            |     |       |
| Mathematics          |     |       | Mathematics          |     |       |
| Science              |     |       | Science              |     |       |
| Social Studies       |     |       | Social Studies       |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| <b>Total Credits</b> |     |       | <b>Total Credits</b> |     |       |
| <b>GPA</b>           |     |       | <b>GPA</b>           |     |       |

| 10th Grade           |     |       |                      |     |       |
|----------------------|-----|-------|----------------------|-----|-------|
| First Semester       | ECA | Grade | Second Semester      | ECA | Grade |
| English 10           |     |       | English 10           |     |       |
| Mathematics          |     |       | Mathematics          |     |       |
| Science              |     |       | Science              |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| <b>Total Credits</b> |     |       | <b>Total Credits</b> |     |       |
| <b>GPA</b>           |     |       | <b>GPA</b>           |     |       |

| 11th Grade           |     |       |                      |     |       |
|----------------------|-----|-------|----------------------|-----|-------|
| First Semester       | ECA | Grade | Second Semester      | ECA | Grade |
| English 11           |     |       | English 11           |     |       |
| Mathematics          |     |       | Mathematics          |     |       |
| Science              |     |       | Science              |     |       |
| Social Studies       |     |       | Social Studies       |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| <b>Total Credits</b> |     |       | <b>Total Credits</b> |     |       |
| <b>GPA</b>           |     |       | <b>GPA</b>           |     |       |

| 12th Grade           |     |       |                      |     |       |
|----------------------|-----|-------|----------------------|-----|-------|
| First Semester       | ECA | Grade | Second Semester      | ECA | Grade |
| English 12           |     |       | English 12           |     |       |
| Mathematics          |     |       | Mathematics          |     |       |
| Science              |     |       | Science              |     |       |
| Social Studies       |     |       | Social Studies       |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| Elective             |     |       | Elective             |     |       |
| <b>Total Credits</b> |     |       | <b>Total Credits</b> |     |       |
| <b>GPA</b>           |     |       | <b>GPA</b>           |     |       |



# COURSE OFFERINGS MEETING THE CRITERIA FOR THE ACADEMIC HONORS DIPLOMA

(Listing includes offerings for General, Core 40 Diplomas)

## English/ Language

English 9-12  
English Honors 9-11  
Creative Writing  
Speech  
World Literature  
Composition

## Science and Technology

Biology I  
Chemistry I  
Chemistry I-II Honors  
Advanced Science  
Earth Space Science  
Integrated Chemistry/Physics (ICP)  
Integrated Chemistry/Physics Honors  
Physics  
Physics I Honors  
Earth Space Science  
AP Biology  
AP Physics B

## Social Studies

Economics  
US Government  
Honors Government  
Psychology  
Sociology  
US History  
Honors World History  
AP US Government & Politics  
AP US History  
AP Microeconomics

## Mathematics

Algebra I  
Algebra II  
Algebra II Honors  
Calculus  
Pre-Calculus/Trigonometry  
Geometry  
Geometry Honors  
Statistics  
AP Calculus AB

## Fine Arts

Intro to 2-D Art  
Ceramics  
3-D Art  
Advanced 3-D Art  
Media Arts  
Computer Graphics  
Theatre Arts  
Advanced Theatre  
Intermediate Concert Band  
Advanced Concert Band  
AP Chemistry  
Beginning Concert Band  
Beginning Orchestra  
Piano & Electric Keyboard  
Beginning Chorus  
Advanced Chorus  
Intermediate Chorus

## World Language

French 1, 2, 3, 4  
German 1, 2, 3, 4  
Spanish 1, 2, 3, 4  
Russian 1, 2, 3, 4  
Japanese 1, 2, 3, 4  
Chinese 1, 2, 3, 4  
American Sign Language 1 & 2

### Note:

- All information is subject to change as deemed necessary by the Indiana Department of Education and Indianapolis Public Schools.
- Students must maintain a 3.0 cumulative grade point average and must have a grade of “C” or better in state required Academic Honors Courses.
- All students in the Classes of 2012+ must pass the End-of-Course Assessment (ECA) in Algebra I and English 10 in the year in which they take the course.

## EARLY GRADUATION REQUIREMENTS

The State of Indiana makes a provision for a student to earn a high school diploma in seven semesters instead of eight assuming the following steps have been taken:

- the student has met all the graduation requirements
- the student has been accepted and enrolled into a post-secondary educational institution, or
- the student has an enlistment contract with an educational component into a branch of the U.S. Armed Forces.

Such requests shall be initiated by the student at the beginning of their seventh semester, approved in writing by the parent/guardian, and presented to the Director of Guidance to present to the Principal. Students meeting the seven semester graduation requirement may participate in commencement exercises. It is the decision of the Principal to approve or deny this request.

## WEIGHTED GRADES – Grading Formula

The establishment of the weighted grading policy for grades 9-12 assures that students are encouraged and rewarded for taking higher-level courses. The following grade scale will be used:

| Grade | Percentage Value to Grade | AP/IB/DC Classes | Honors Classes | Regular Classes |
|-------|---------------------------|------------------|----------------|-----------------|
| A     | 95-100                    | 5.0              | 4.5            | 4.0             |
| A-    | 92-94                     | 4.6              | 4.1            | 3.5             |
| B+    | 89-91                     | 4.3              | 3.8            | 3.2             |
| B     | 84-88                     | 4.0              | 3.5            | 3.0             |
| B-    | 82-83                     | 3.7              | 3.2            | 2.8             |
| C+    | 79-81                     | 3.4              | 2.9            | 2.5             |
| C     | 75-78                     | 3.0              | 2.5            | 2.0             |
| C-    | 73-74                     | 2.6              | 2.2            | 1.7             |
| D+    | 71-72                     | 2.2              | 1.9            | 1.5             |
| D     | 67-70                     | 1.8              | 1.5            | 1.0             |
| D-    | 65-66                     | 1.4              | 1.0            | 0.5             |
| F     | 64 and Below              |                  |                |                 |

## RANK IN CLASS

A student's rank in class is important; it is essential that each student achieve at the best of his/her capabilities. Rank is determined by figuring cumulative averages for each student and then placing them in order with the highest first. GPA is calculated on the basis of the classes taken beginning with the freshman year. In case of a tie, the students will be listed numerically the same and the appropriate numbers following will be eliminated.

## WITHDRAWALS

“WD” for withdrawal will be recorded for a student who withdraws from a class because of a medical reason or who transfers to another school. “WF” for withdrawal failing, is issued to a student who withdraws from a class after the first two weeks of the semester, has accumulated excessive absences, or who is expelled.

## POLICY FOR CHANGING A STUDENTS' PLACEMENT WITHIN A SEMESTER

A student is permitted to withdraw or change to an Honors class or to a regular course of the same topic if the following requirements are met:

- The student, parent/guardian, and teacher must be in agreement that the removal/change is in the best interest of the student.
- The request must meet administrative approval.
- The guidance counselor is capable of finding the desired course that is in alignment with the student's schedule.
- The student will transfer into the new course with the current grade achieved in the previous class.

## END-OF-COURSE ASSESSMENTS– INDIANA QUALIFYING EXAMS

Beginning with the Class of 2012 all students must pass the End-of-Course Assessment (ECA) in English-10 and Algebra-I. The ECA is given in sophomore year. Junior and senior students are offered four additional opportunities to complete the ECA requirements during subsequent years.

## RETAKEING A CLASS/ACADEMIC RENEWAL POLICY

Failed courses may be repeated by enrolling in Credit Recovery (Edgenuity). Interested students should speak with their counselors to determine which option fits their needs. In order to ensure accurate course selection, all options require counselor approval prior to enrollment.

When a student retakes a course, the grade will replace the earlier grade and the original WILL NOT count as an attempt for credit on the student's transcript or in the GPA calculation.

## EDGENUITY – VIRTUAL COURSE INFORMATION

Students who attend any IPS High School can take advantage of several Virtual Opportunities. The Virtual School courses are one of those opportunities. Virtual School courses allow students to work at their own pace, which makes this a viable option for many of our students to work ahead and earn credits, or earn credits for classes they may not have room for in their schedule. Student progress is monitored by the Virtual School Office, teachers, and counselors. We want to be certain students make steady progress with their virtual work.

Virtual School coursework follows the same curriculum as a regular in-school class. Students who want to take a virtual course must first discuss this with their counselor. The counselor will initiate the required paperwork.

## HIGH SCHOOL CREDITS EARNED IN MIDDLE SCHOOL

Middle school students who have taken high school courses in their middle schools and received a C or better will earn high school credits for these successfully completed courses. These grades and credits from middle schools will be posted to the student's IPS official high school transcript and will be used to calculate high school grade point average (GPA) and class rank.

## ADVANCED PLACEMENT PROGRAM

The Advanced Placement Program (AP) gives students an opportunity to take college-level courses and exams while they are still in high school. Students will automatically receive high school credit for successfully completing the course, but they must receive a score a 3 or above on the AP exam to earn the college credit.

## DUAL CREDIT OPPORTUNITES

A Dual Credit course allows students to earn both college credit hours and high school credit for successfully completing just one course. The college credit hours awarded through Dual Credit are earned through completion of the course and not solely by an exam at the end of the course. Indianapolis Public Schools has partnerships with several state colleges and universities that offer Dual Credit courses. Some colleges require certain grade point averages, grade levels and/or fees – which, if any, are significantly reduced from the university's on-campus fee.

All students who receive Free or Reduced Lunch are waived from paying any state university Dual Credit fees. In addition, students who might need some financial assistance may apply for scholarships. Indianapolis Public Schools have Dual Credit agreements with the following universities: IUPUI, Ivy Tech Community College, and Vincennes University. All Dual Credit from courses on the Core Transfer Library list are accepted at any Indiana state college or university and many private colleges. A complete list of Dual Credit courses in the Core Transfer Library can be found on the Department of Education's website. Dual Credits include both academic courses and career academic courses.

## PROMOTION REQUIREMENTS

Students will be required to meet current promotion requirements as determined by board policy:

### High Schools 9-12 Block Schedule for incoming freshmen:

- Grades 9 to 10 – A minimum of 10 credits must be earned
- Grades 10 to 11 – A minimum of 20 credits must be earned
- Grades 11 to 12 – A minimum of 30 credits must be earned
- Graduation – A minimum of 42 credits and successful completion of any other state standards must be earned according to the State Board Policy.

## ATTENDANCE

The Indiana Department of Education requires accurate and consistent reporting of student attendance by the Indianapolis Public Schools. The problem of truancy in the District is compounded when student absences are not reported or responded to in a consistent manner. This policy is intended to ensure that all attendance reports generated by the District and used by the Indiana Department of Education and the juvenile justice system will be correct. It also sets forth a District-wide policy aimed at reducing truancy.

## COMPULSORY ATTENDANCE

Indiana's Compulsory School Attendance law requires students to attend school each year for the number of days that schools are in session. Regular school attendance is important if students are going to achieve at high levels.

## EXCUSED ABSENCES

The following types of absences are generally recognized as excused, subject to requirements set forth in I.C. 20-33-2:

- A. Documented illness or emergency
- B. Healthcare and social services appointments
- C. Pages in Indiana General Assembly
- D. Death in the immediate family
- E. Religious instruction commitments
- F. Subpoena as a witness in a judicial proceeding
- G. Participation in Election Day activities
- H. Active Duty in the Indiana National Guard
- I. Detention in Juvenile or Criminal Justice System

If a student is absent because of illness or emergency, the parent/guardian must contact the school the morning of the day the student is absent, and/or in the case of an elementary school student, provide a note on the day following the absence. In those cases where a student is absent for five (5) or more consecutive days as a result of illness or injury, a doctor's statement shall be required as a condition of classifying the absence as excused.

A pattern of excused absences may be an indication that the student's attendance is not in alignment with District policy and may be treated as unexcused if there is doubt as to the legitimacy of the excuses and the principal makes a determination that the absences are unexcused

after an investigation by the principal. In such case, the student's parents/guardians shall be given notice of the principal's determination and afforded an opportunity to contest that determination.

## UNEXCUSED ABSENCES

With the exception of absences resulting from suspension, all absences other than those listed above generally shall be classified as unexcused unless extenuating circumstances, as determined by the principal, warrant that the absence be classified as excused.

The following procedures will be implemented to help ensure student attendance:

- A. Students who miss up to three (3) unexcused days within a school year will have their parents/guardians contacted by the classroom teacher. This contact should be documented by the teacher.
- B. The social worker will also contact the student's parent/guardian after the student has missed three (3) unexcused days. An additional parent/guardian contact will be made by the social worker after the student has missed a fourth unexcused day. The social worker will work with the child's parents/guardians to identify barriers to the child's attendance and possible strategies to remove these obstacles, and to develop a plan to improve the student's attendance.
- C. When a student has had five (5) unexcused absences in a school year, the student is identified as a Chronic Truant and the student's attendance records will be flagged (CT). The social worker will continue to work with the student to correct the attendance problem. The social worker will also send a certified letter to the student's parents/guardians notifying them of potential legal action.
- D. When a student has had ten (10) unexcused absences in a school year, the student is identified as a Habitual Truant and the student's attendance records will be flagged (HT). If the student is enrolled in elementary school, the District will notify the county prosecutor that the parent/guardian has violated I.C. 20-33-2-27 by failing to ensure that the student attends school as required by law. If a student is enrolled in a middle school or a high school and is under the age of eighteen (18), the District will refer the student to truancy court for a violation of I.C. 20-33-2 (compulsory school attendance). Students who are determined to be in violation of I.C. 20-33-2 may be placed on probation by court and will be

monitored more closely by the social worker. If a student violates the terms of probation, the student will be referred back to court for additional action.

During any stage, the social worker and/or guidance counselor is encouraged to work with families to remove barriers that prevent regular school attendance.

## TESTING

Students enrolled in Algebra, Biology, and English 10 are required to take the Indiana ECA test.

### END-OF-COURSE ASSESSMENT PROGRAM (ECA)

The Indiana End-of-Course Assessments are used to sample a student's knowledge of subject-related concepts as specified in the State Standards and to provide a global estimate of the student's mastery of the material in a particular content area. Students enrolled in the following will be required to take the Indiana ECA tests: Algebra, Biology, and English 10. All end-of-course assessments will be administered at the end of the year. Each student shall take the appropriate ECA assessments the first time the student takes the course. Students shall take the appropriate ECA assessment at the end of the course regardless of the grade level in which the course is offered.

### Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test (PSAT)

The Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) or more often simply called the PSAT is nationally administered by the College Entrance Examination Board (CEEB), and assesses students in three areas: Verbal, Mathematics and Writing.

The PSAT is used to help students practice for the Scholastic Assessment Test (SAT) and to qualify for scholarships and recognition from such programs as: National Merit Scholarships, National Achievement Scholarships for Outstanding African American Students, National Hispanic Scholar Recognition Program, Student Search Service, and some statewide and national industry scholarship competitions. Registration information will be available in the school counselor's office at each high school.

## SAT

The SAT is an optional test nationally administered by the College Board. It assesses students in three areas: Critical Reading, Mathematics and Writing.

Critical Reading skills are assessed by multiple choice questions using: critical reading passages, paired passages, vocabulary in context and sentence completion. Mathematics sections allow the use of a calculator and employ multiple choice questions and "constructed responses" to measure how well students understand and apply Mathematics to new situations and non-routine problems. The section on Writing includes multiple choice questions on grammar and usage and a student written essay. The SAT is one of the admissions tests used by post-secondary institutions to assist in selecting students.

The SAT is administered at selected sites nationally. Students must pay and register online or by mail several weeks prior to the test date. Registration information is available in the school counselors' office at each high school and at [www.collegeboard.org](http://www.collegeboard.org).

## ACT

The ACT assesses high school students' general educational development and their ability to complete college-level work. The ACT has five sub scores: four multiple-choice tests covering skill areas of English, Mathematics, reading, and science; the Writing Test measuring skill in planning and writing a short essay.

The ACT is also administered at selected sites nationally. For these administrations, students must pay and register by mail several weeks prior to the test date. Registration information is available in the school counselor's office at each high school. More information is available at [www.actstudent.org](http://www.actstudent.org).

## EXTRACURRICULAR COLLEGE BOUND STUDENT ATHLETE

To play sports as a freshman in NCAA Divisions I and II, you must meet specific standards. You must graduate from high school and make at least the minimum required grade-point average in 16 core academic classes for Division I and 14 core academic classes for Division II. Please note, Division II began requiring 16 core courses beginning August 1, 2013.

### NCAA Division I Core Academic Course Requirements

- 4 years English
- 3 years Mathematics (Algebra I or higher)
- 2 years social science
- 2 years natural or physical science (including one lab course, if offered by the high school)
- 1 year of an additional course in English, Mathematics or natural or physical science
- 4 additional years of academic courses in any of the above areas, or in world language, philosophy or non-comparative religion

Beginning with those who enroll in NCAA Division I colleges in 2008 or later, students must meet all of the requirements above with three years of Mathematics (Algebra I or higher level) and four additional years of academic courses.

### NCAA Division II Core Academic Course Requirements

- 3 years English
- 2 years Mathematics (Algebra I or higher)
- 2 years natural or physical science (including one lab if offered by high school)
- 2 years social science
- 2 years of additional English, Mathematics or natural/physical science (3 years if entering college on or after August 1, 2013)
- 3 years of additional courses (from any area above, world language, or comparative religion/philosophy. (4 years if entering college on or after August 1, 2013))

The grade-point average requirements are for the 16 core courses, in Division I and the 14 core courses in Division II, not the overall GPA. Students should work with their high school counselor and coach to make certain their class schedule is on track to meet the NCAA guidelines.

### NCAA Eligibility Center

#### Certification

If the student intends to participate in Division I or II athletics as a freshman, then he/she must register and be certified by the NCAA Eligibility Center.

#### Fee Waivers

High School counselors may waive the application fee if the student has previously received a waiver of the ACT or SAT fee.

#### Test Score Requirements

(SAT, ACT) in Divisions I and II, the student must achieve

the minimum required SAT score or ACT score before his/her first full-time college enrollment in order to qualify.

### Additional Information

Athletic information included is provided as a resource. Specific questions or clarifications of athletic information and/or eligibility should be addressed to the school's athletic director. For more information regarding the rules, please go to [www.NCAA.org](http://www.NCAA.org). Click on "Academics and Athletes" then "Eligibility and Recruiting." Or visit the NCAA Eligibility Center Website at [www.eligibilitycenter.org](http://www.eligibilitycenter.org)

| HIGH SCHOOL OPTIONS  |        |
|--|--------|
| HIGH SCHOOLS   | GRADES |
| Arlington High School  | 7-12   |
| Arsenal Technical High School  | 9-12   |
| Broad Ripple Magnet High School for the Arts & Humanities              | 6-12   |
| Career Technology Center<br>*on Arsenal Technical High School's campus | 9-12   |
| Crispus Attucks Medical Magnet High School                             | 6-12   |
| George Washington Community High School                                | 7-12   |
| John Marshall Community High School                                    | 7-12   |
| Key Learning Community   | K-12   |
| Northwest Community High School  | 7-12   |
| Shortridge Magnet High School  | 9-12   |

### PREPARING FOR COLLEGE

#### 21st Century Scholar

Indiana's 21st Century Scholars Program began in 1990 to ensure that every Hoosier student can afford the opportunity provided by a college degree. Today, eligible students who keep the Scholar Pledge to excellence in school and life receive a Scholarship to help pay for their college education.

Indiana's 21st Century Scholars Program offers income-eligible Hoosier students up to four years of paid tuition at an eligible Indiana college or university after they graduate from high school. In middle and high school, 21st Century Scholars are connected to programs and resources to help them plan, prepare, and pay for college. Once in college, Scholars receive support to complete their college degrees and connect to career opportunities.

#### Becoming a 21st Century Scholar

Indiana 7th and 8th grade students whose families meet

income eligibility guidelines can apply to become a 21st Century Scholar. Applications must be received by June 30 of the student's 8th grade year. Students may apply online, or through a local school or nonprofit organization that has agreed to submit online applications on behalf of eligible students.

### **Succeeding in School**

While in high school, 21st Century Scholars are expected to complete a Scholar Success Program that helps them plan, prepare and pay for college completion. Three required activities each year help Scholars stay on track to graduate high school and earn a college degree. Participation in the Scholar Success Program is recommended for all Indiana students and required for 21st Century Scholars who start high school in the fall of 2013 or later.

### **Completing College**

The final step in the 21st Century Scholars Program is to complete college successfully and enter a career pathway. Scholars continue to receive support in college as they plan their path to a degree, prepare for success in the workplace and pay for college with the 21st Century Scholarship. Learn more about the Scholar Success Program in college, or read about academic requirements for students in college.

### **Learn More...**

Read our FAQs for answers to common questions, including how to check enrollment status, finding eligible colleges and more. Learn more about the Program by reading about one of our featured Scholars. Like all Scholars, these talented students face real hurdles to completing college—but they have the determination and knowledge to succeed.

[www.in.gov/21stcenturyscholars](http://www.in.gov/21stcenturyscholars)

\*Information courtesy of <http://www.in.gov/21stcenturyscholars/2522.htm>

## **COLLEGE ONLINE RESOURCES**

The Independent Colleges Indiana (ICI) website, [www.icindiana.org](http://www.icindiana.org), provides links to all independent colleges and universities in Indiana and has lots of other information on finding the best college fit. Here are some websites with more information on college choice and student financial aid.

[www.nces.ed.gov/collegenavigator](http://www.nces.ed.gov/collegenavigator)

Using College Navigator's school search engine, you can explore some 7,000 postsecondary U.S. institutions based on criteria you select, including programs and

degrees awarded, retention and graduation rates, price of attendance, available aid, campus safety and accreditation. This federal website comes from the National Center for Educational Statistics.

[www.learnmoreindiana.org](http://www.learnmoreindiana.org)

The Learn More Resource Center is a great source of information about career planning, educational options, and financing your education. An arm of the Indiana Commission for Higher Education, Learn More also provides an information hotline at 1-800-992-2076.

[www.in.gov/sfa](http://www.in.gov/sfa)

Indiana's Division of Student Financial Aid (SFA) explains state financial aid programs, answers Frequently Asked Questions and provides links to additional aid sources.

[www.studentaid.ed.gov](http://www.studentaid.ed.gov)

The U.S. Department of Education sponsors this site about federal aid programs, featuring information on the latest changes and an online student Guide.

[www.fafsa.ed.gov](http://www.fafsa.ed.gov)

File the Free Application for Federal Student Aid online.

[www.finaid.org](http://www.finaid.org)

From a noted financial aid and college planning author, this is a comprehensive annotated collection of information about student financial aid.

[www.in.gov/tos/lesa](http://www.in.gov/tos/lesa)

From the Indiana Education Savings Authority, information about three great ways to save for college.

[www.fastweb.com](http://www.fastweb.com)

The largest and most complete source of scholarships available, FastWeb! features personalized matching of scholarships to students' unique profiles.

[www.collegecosts.com/nccc](http://www.collegecosts.com/nccc)

The National Center for College Costs provides financial aid consulting to families through school systems. This site offers students and parents/guardians insight on financial aid and college preparation.

[www.triptocollege.org](http://www.triptocollege.org)

Sponsored by the Indiana Youth Institute and made possible by a grant from Lilly Endowment Inc., Trip to College is a step-by-step guide to making college a reality for Indiana families.



# AGRICULTURAL EDUCATION



## INTRODUCTION

Agricultural Education combines the home, the school and the community as the means of education in agriculture and natural resources. The courses provide students with a solid foundation of academic knowledge and hands-on opportunities to apply this knowledge through classroom activities, laboratory experiments and project applications, supervised agricultural experiences (SAE) and FFA. The vision and mission of Agricultural Education is that all people value and understand the vital role of agriculture, food, fiber and natural resource systems to advance personal and global well-being, prepare students for successful careers and to make a lifetime of informed choices in agriculture.

## COURSES OFFERED:

- Introduction to Agriculture, Food and Natural Resources (5056)
- Animal Science (5008)
- Advanced Life Science: Animals (L) (5070)
- Supervised Agricultural Experience (5228)

## INTRODUCTION TO AGRICULTURE, FOOD AND NATURAL RESOURCES

### 5056 (INT AGFNR)

*Introduction to Agriculture, Food and Natural Resources* is highly recommended as a foundation for all other agricultural classes. This course provides students with an introduction to the fundamentals of agricultural science and business. Topics covered include: animal science, plant and soil science, food science, horticultural science, agricultural business management, landscape management, natural resources, agriculture power, structure and technology, leadership development, supervised agricultural experience and career opportunities in the area of agriculture, food and natural resources. Offered at Arsenal Technical High School (STAR Academy).

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ANIMAL SCIENCE

### 5008 (ANML SCI)

*Animal Science* provides students with an overview of the animal science field for both large and small animals. Students participate in a variety of activities and labo-

ratory work including real and simulated animal science experiences. Topics addressed include: anatomy and physiology, genetics, reproduction, nutrition, common diseases and parasites, and social and political issues related to the industry and management practices for the care and maintenance of animals. Offered at Arsenal Technical High School (STAR Academy).

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 1-3 credit(s) per semester, maximum of 6 credits
- Fulfills a Life Science or Physical Science requirement for the General diploma only or counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ADVANCED LIFE SCIENCE: ANIMALS (L)

### 5070 (ALS ANIML)

*Advanced Life Science: Animals* provides students with opportunities to investigate concepts that enable them to understand animal life and animal science as it pertains to agriculture. Through instruction, including laboratory, fieldwork, leadership development, supervised agricultural experience and the exploration of career opportunities, students will recognize concepts associated with animal taxonomy, life at the cellular level, organ systems, genetics, evolution and ecology, and historical and current issues in animal agriculture. Offered at Arsenal Technical High School (STAR Academy)

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources, Animal Science, Chemistry I and Biology I
- Credits: 1-3 credit(s) per semester, maximum of 6 credits
- Fulfills a Core 40 Science requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective or directed elective for any diploma. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.

## **SUPERVISED AGRICULTURAL EXPERIENCE**

5228 (SAE)

*Supervised Agricultural Experience* provides students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students experience and apply what is learned in the classroom, laboratory, and training site to real-life situations. Students work closely with their agricultural science and business teacher(s), parents and/or employers to get the most out of their SAE program. This course can be offered each year as well as during the summer session. Offered at Arsenal Technical High School (STAR Academy)

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Fundamentals of Agricultural Science and Business
- Credits: 1 credit per semester, 8 credits maximum
- Fulfills as an elective or the General, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.



**BUSINESS, MARKETING, AND  
INFORMATION TECHNOLOGY**

## INTRODUCTION

The mission of Business, Marketing, and Information Technology in Indiana is to work cooperatively with business/industry to prepare students to live and work as productive citizens in a changing global society by providing essential business, marketing, and information technology experiences, and training. These experiences should actively engage students using instructional strategies that rely on the use of technology and practices that reflect current and emerging business/industry practices.

## COURSES OFFERED:

- Business Law and Ethics (4560)
- Business Math (4512)
- Business and Management, Higher Level, International Baccalaureate (4580)
- Business and Management, Standard Level, International Baccalaureate (4582)
- Computer Programming I (4534)
- Computer Programming II (5236)
- Introduction to Computer Science (4803)
- Computer Tech Support (5230)
- Digital Citizenship (4530)
- Information Communications and Technology (4528)
- Infrastructure of the Internet (4588)
- Introduction to Business (4518)
- Personal Financial Responsibility (4540)
- Preparing for College and Careers (5394)
- Introduction to Radio and Television I/Radio and Television I (5986)
- Radio and Television II (5992)
- Technical Business Communications (4508)

## BUSINESS LAW AND ETHICS

### 4560 (BUS LAW ETH)

*Business Law and Ethics* provides an overview of the legal system in the business setting. Topics covered include: basics of the judicial system, contract, personal, employment and property law. Application of legal principles and ethical decision-making techniques are presented through problem-solving methods and situation analyses. Offered at Northwest Community High School.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## BUSINESS MATH

### 4512 (BUS MATH)

*Business Math* is a course designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. A solid understanding of math including algebra, basic geometry, statistics and probability provides the necessary foundation for students interested in careers in business and skilled trade areas. The content includes mathematical operations related to accounting, banking and finance, marketing, and management.

- Recommended Grade Level: 10-11
- Recommended Prerequisite: Algebra I
- Credits: 1 credit per semester, maximum of 2 credits
- Fulfills a Mathematics requirement for the General Diploma only or counts as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## BUSINESS AND MANAGEMENT HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

### 4580 (BUSM H IB)

*Business and Management Higher Level, International Baccalaureate*, explores how and why individuals form organizations, organizational problems and life cycles and the role of individuals and groups within organizations. Students gain a broad understanding of the variety of organizations that exist, including profit and nonprofit and examine and apply the principles of organizations and the techniques practiced in organizational decision making. Students also develop an understanding of the interdependency of organizations and the effect on problem solving. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas.

## BUSINESS AND MANAGEMENT STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

### 4582 (BUSM S IB)

*Business and Management Standard Level, International Baccalaureate*, examines the role of individuals and groups in forming organizations and their roles within organizations. Students gain a broad understanding of the variety of organizations that exist, including profit and

nonprofit, and the problems and life cycles of these organizations. This course develops an understanding of the interdependency of organizations, the effect of problem solving and the application of organizational principles and techniques widely practiced in the process of decision making. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas.

### **COMPUTER PROGRAMMING I** **4534 (COMP PROG I)**

*Computer Programming I* covers fundamental concepts of programming, which are provided through explanations and effects of commands, and hands-on utilization of lab equipment to produce correct output. This course introduces the structured techniques necessary for efficient solutions for business-related computer programming logic problems and coding solutions into a high-level language. Includes program flowcharting, pseudo coding, and hierarchy charts as a means of solving these problems. The course covers creating file layouts, print charts, program narratives, user documentation, and related systems. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Information and Communications Technology
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **COMPUTER PROGRAMMING II** **5236 (COMP PROG II)**

*Computer Programming II* explores and builds skills in C++ and Java. The study of C++ provides a basic understanding of the fundamentals of procedural program development using structured, modular concepts. Emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers. Data file access methods are also presented. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Computer Programming I

- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **INTRODUCTION TO COMPUTER SCIENCE** **4803 (INTRO CS)**

*Introduction to Computer Science* allows students to explore the impact of computing in our global society. In addition to gaining a broad understanding of simple apps and mobile devices, students will focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/robotics.

- Recommended Grade Level: 9-10
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits (Designed as a one-semester course.)
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **COMPUTER TECH SUPPORT** **5230 (COMP TECH)**

*Computer Tech Support* allows students to explore how computers work. Students learn the functionality of hardware and software components as well as best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Information Communications and Technology
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

### **DIGITAL CITIZENSHIP** **4530 (DIGI CITI)**

*Digital Citizenship* prepares students to use computer technology in an effective and appropriate manner. Students develop knowledge of word processing, spreadsheets, presentation and communications software. Students establish what it means to be a good digital citizen and how to use technology appropriately.

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 1 credit

- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INFORMATION COMMUNICATIONS AND TECHNOLOGY**

### **4528 (IT COM TECH)**

*Information Communications and Technology* introduces students to the physical components and operation of computers. Technology is used to build students' decision-making and problem-solving skills. This course helps students develop efficient and practical computer skills beyond the basics which they may have learned at home or in middle school. Students also learn appropriate and effective use of the Internet. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **INFRASTRUCTURE OF THE INTERNET**

### **4588 (INFRA INT)**

*Infrastructure of the Internet* focuses on learning the fundamentals of networking, routing, switching, and related protocols. Students are introduced to the two major models used to plan and implement networks: OSI and TCP/IP. The OSI and TCP/IP functions and services are examined in detail. Students will learn how a router addresses remote networks and determines the best path to those networks, employing static and dynamic routing techniques. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Computer Tech Support
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **INTRODUCTION TO BUSINESS**

### **4518 (INTO BUSS)**

*Introduction to Business* introduces students to the world of business. The course covers business management, entrepreneurship, marketing fundamentals, and business ethics and law. The course further develops business

vocabulary and provides an overview of business and its role in economic, social, and political environments.

- Recommended Grade Level: 9-10
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **PERSONAL FINANCIAL RESPONSIBILITY**

### **4540 (PRS FIN RSP)**

*Personal Financial Responsibility* addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals; identify sources of income, saving and investing; understand banking, budgeting, and record-keeping and managing risk, insurance and credit card debt.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **PREPARING FOR COLLEGE AND CAREERS**

### **5394 (PREP CC)**

*Preparing for College and Careers* addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. Topics to be addressed include twenty-first century life and career skills; higher order thinking, communication, leadership, and management processes; exploration of personal aptitudes, interests, values, and goals; examining multiple life roles and responsibilities as individuals and family members; planning and building employability skills; transferring school skills to life and work; and managing personal resources.

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INTRODUCTION TO RADIO AND TELEVISION / RADIO AND TELEVISION I**

**5986 (RAD TV I)**

*Radio and Television I* focuses on communication, media and production. Emphasis is placed on career opportunities, production, programming, promotion, sales, performance, and equipment operation. Students will also study the history of communication systems as well as communication ethics and law. Students will develop oral and written communication skills, acquire software and equipment operation abilities, and integrate teamwork skills. Offered at Broad Ripple Magnet High School and Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Introduction to Communications
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **RADIO AND TELEVISION II**

**5992 (RAD TV II)**

*Radio and Television II* prepares students for admission to television production programs at institutions of higher learning. Students train on professional equipment creating a variety of video projects. Students enrolling in this program should have successfully completed Radio and Television I. During this second-year program students integrate and build on first-year curricula while mastering advanced concepts in production, lighting, and audio. Offered at Broad Ripple Magnet High School and Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Radio and Television I
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **TECHNICAL BUSINESS COMMUNICATIONS**

**4508 (TECH BUS COMM)**

*Technical/Business Communication* provides students with the communication and problem-solving skills to function effectively in the workplace. Areas of study include written/oral/visual communication, listening, informational reading, Internet research/analysis, and electronic com-

munication. Students will produce documents related to employee handbooks, instructional manuals, employment communication, organizational communication, business reports, and social and professional situations.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Digital Citizenship or Information and Communications Technology
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. May fulfill up to two graduation credits of the English/Language Arts requirement.



**SCIENCE**



## INTRODUCTION

Science courses are organized in four content areas: (1) Physical Science; (2) Earth Science; (3) Life Science; (4) Science, Technology and Engineering. Each high school course contains a differing number of standards and each addresses a core concept in the given content area. Most science courses involve laboratory instruction. These courses are noted with a (L) in the course title.

## COURSES OFFERED:

- Advanced Science, College Credit (3090)
- Anatomy and Physiology (5276)
- Biology I (3024)
- Biology II (3026)
- Biology, Advanced Placement (3020)
- Biology Standard Level, International Baccalaureate (3034)
- Biology Higher Level, International Baccalaureate (3032)
- Chemistry I (3064)
- Chemistry, Advanced Placement (3060)
- Chemistry, Higher Level, International Baccalaureate (3070)
- Chemistry, Standard Level, International Baccalaureate (3072)
- Earth and Space Science (3044)
- Environmental Science (3010)
- Environmental Science, Advanced Placement (3012)
- Integrated Chemistry- Physics (3180)
- Physics I (3084)
- Physics 1: Algebra-Based, Advanced Placement (3080)
- Physics 2: Algebra-Based, Advanced Placement (3081)
- Physics, Higher Level, International Baccalaureate (3096)
- Physics, Standard Level, International Baccalaureate (3098)

## ADVANCED SCIENCE, COLLEGE CREDIT (L) 3090 (ADV SCI CC)

*Advanced Science, College Credit* is a title that covers (1) any science course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school, or (2) any other postsecondary science course offered for dual credit.

- Recommended Grade Level: 11 or 12
- Credits: 1 credit per semester. May be offered for successive semesters
- Fulfills a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

- Courses that use this title are most often those taught through the postsecondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty. They do not meet specific high school standards for a corresponding high school course.

## ANATOMY AND PHYSIOLOGY

### 5276 (A & P)

*Anatomy & Physiology* is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of body systems and contributions of each system to the maintenance of a healthy body. Introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, skeletal, muscular and nervous systems as an integrated unit.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Biology I
- Credits: 1 credit per semester, maximum of 2 credits
- Fulfills a Core 40 Science course requirement for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas or counts as an elective or directed elective for any diploma. This course is aligned with postsecondary courses for dual credit.

## BIOLOGY I (L)

### 3024 (BIO I)

*Biology I* is a course based on the following core topics: cellular chemistry, structure and reproduction; matter cycles and energy transfer; interdependence of organisms; molecular basis of heredity; genetics and evolution. Instruction focuses on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations.

- Recommended Grade Level: 10
- Credits: 2 credit course
- Fulfills the Life Science requirement for the General diploma, fulfills the Biology credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## BIOLOGY II (L)

### 3026 (BIO II)

*Biology II* is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students analyze and

describe the relationship of Earth's living organisms to each other and to the environment. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge.

- Recommended Grade Level: 10
- Recommended Prerequisite: Biology I
- Credits: 2 credit course
- Counts as a Life Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

### **BIOLOGY, ADVANCED PLACEMENT (L)**

#### **3020 (BIO AP)**

*Biology, Advanced Placement* focuses on the core scientific principles, theories, and processes governing living organisms, biological systems, and natural phenomena. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: Biology I and Chemistry I
- Credits: 2 credit course, 1 credit per semester
- Counts as a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course

### **BIOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE**

#### **3032 (BIO H IB)**

*Biology Higher Level, International Baccalaureate*, focuses on six core topics: cells, the chemistry of life, genetics, ecology, evolution and human health and physiology. Students must complete additional study in eight topics: nucleic acids and proteins, cell respiration and photosynthesis, human reproduction, defense against infectious disease, nerves, muscles and movement, excretion and plant science. Optional course topics for students include diet and human nutrition, physiology of exercise, neurobiology and behavior, applied plant and animal science and ecology and conservation. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Recommended Prerequisite: Biology 1 and Chemistry 1
- Credits: 4 semester course, 1 credit per semester
- Fulfills the Biology I requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma.

### **BIOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE**

#### **3034 (BIO S IB)**

*Biology Standard Level, International Baccalaureate* focuses on six core topics: cells, the chemistry of life, genetics, ecology, evolution, and human health and physiology. Optional course topics include neurobiology and behavior, applied plant and animal science, ecology and conservation, diet and human nutrition, and physiology of exercise. This course is based on curriculum published by the International Baccalaureate Organization. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Recommended prerequisite: Biology 1 and Chemistry 1
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Biology I requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma

### **CHEMISTRY I (L)**

#### **3064 (CHEM I)**

*Chemistry I* is a course based on the following core topics: properties and states of matter; atomic structure; bonding; chemical reactions; solution chemistry; behavior of gases and organic chemistry. Instruction focuses on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations and communicating results.

- Recommended Grade Level: 10-12
- Recommended Prerequisite: Algebra II (can be taken concurrently)
- Credits: 2 credit course
- Fulfills the requirement for Physical Science for the General diploma. Fulfills Chemistry credit for Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

### **CHEMISTRY, ADVANCED PLACEMENT (L)**

#### **3060 (CHEM AP)**

*Chemistry, Advanced Placement* focuses on two core subject areas (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of matter, solutions, chemical reactions, stoichiometry, equilibrium, and thermodynamics. This course is based on content established by the College Board.

- Recommended Grade Level: 12
- Recommended Prerequisite: Chemistry I, Algebra II, Pre-calculus/Trigonometry
- Credits: 2 credit course, 1 credit per semester
- Fulfills a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

Core 40 with Academic Honors, Core 40 with Technical Honors or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## CHEMISTRY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

### 3070 (CHEM H IB)

*Chemistry Higher Level, International Baccalaureate*, is designed to introduce students to the theories and practical techniques involved in the composition, characterization and transformation of substances. Students study eleven core topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction and organic chemistry. Students must complete additional study in nine topics: atomic theory, periodicity, bonding, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction and organic chemistry. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Recommended Prerequisite: Biology 1 and Chemistry 1
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, or Core 40 with Technical Honors diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## CHEMISTRY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

### 3072 (CHEM S IB)

*Chemistry Standard Level, International Baccalaureate* is designed to introduce students to the theories and practical techniques involved in the composition, characterization, and transformation of substances. As the central science, the chemical principles investigated underpin both the physical world in which we live and all biological systems. This course is based on curriculum published by the International Baccalaureate Organization. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: Biology 1 and Chemistry 1
- Credits: 2 semester course, 1 credit per semester
- Fulfills Chemistry I requirement for the Core 40,

## EARTH AND SPACE SCIENCE I (L)

### 3044 (EAS SCI I)

*Earth and Space Science I* is a course focused on the following core topics: study of the earth's layers; atmosphere and hydrosphere; structure and scale of the universe; the solar system and earth processes. Instruction focuses on developing student understanding that scientific knowledge is gained from observation and experimentation by designing and conducting investigations guided by theory and evaluating and communicating results.

- Recommended Grade Level: 9 or 10
- Credits: 2 credit course
- Fulfills the Earth and Space science requirement for the General diploma. Fulfills Science credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ENVIRONMENTAL SCIENCE (L)

### 3010 (ENVSCI)

*Environmental Science* is an interdisciplinary course that integrates biology, earth science and chemistry. Students enrolled in this course conduct in-depth scientific studies of ecosystems, population dynamics, resource management and environmental consequences of natural and anthropogenic processes. Students formulate, design, and carry out laboratory and field investigations as an essential course component.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: 2 credits in Core 40 and Academic Honors Diploma science coursework
- Credits: 2 credit course
- Fulfills the Life Science requirement for the General diploma. Fulfills Science credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ENVIRONMENTAL SCIENCE, ADVANCED PLACEMENT (L)

### 3012 (ENVSCI AP)

*Environmental Science, Advanced Placement* focuses on investigating the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. This course is based on content established by the College Board.

- Recommended Grade Level: 12

- Recommended Prerequisite: Biology I and Chemistry I
- Credits: 2 credit course, 1 credit per semester
- Counts as a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **INTEGRATED CHEMISTRY-PHYSICS (L)**

### **3108 (ICP)**

*Integrated Chemistry-Physics* is a course focused on the following core topics: motion and energy of macroscopic objects; energy; properties of matter; transport of energy; magnetism; energy production and its relationship to the environment and economy. Instruction focuses on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation and communicating the results.

- Recommended Grade Level: 9
- Recommended Prerequisite: Algebra I (may be taken concurrently with this course)
- Credits: 2 credit course
- Fulfills the Physical Science requirement for the General diploma. Fulfills the two-credit requirement for Chemistry I, Physics I, or Integrated Chemistry-Physics towards the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **PHYSICS I (L)**

### **3084 (PHYS I)**

*Physics I* is a course focused on the following core topics: motion and forces; energy and momentum; temperature and thermal energy transfer; electricity and magnetism; vibrations and waves; light and optics. Instruction focuses on developing student understanding that scientific knowledge is gained from observation and experimentation by designing and conducting investigations and by evaluating and communicating the results.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: Algebra II
- Credits: 2 credit course
- Fulfills the Physical Science requirement for the General diploma. Fulfills the two-credit requirement for Chemistry I, Physics I, or Integrated Chemistry-Physics towards the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **PHYSICS 1: ALGEBRA-BASED, ADVANCED PLACEMENT (L)**

### **3080 (PHYS 1 AP)**

*Physics 1: Algebra-based, Advanced Placement* is equivalent to a first semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum), energy and waves. This course is based on content established by the College Board.

- Recommended Grade Level: 10 or 11
- Recommended Prerequisite: Algebra I or Integrated Mathematics I
- Credits: 2 credit course, 1 credit per semester
- Counts as a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **PHYSICS 2: ALGEBRA-BASED, ADVANCED PLACEMENT (L)**

### **3081 (PHYS 2 AP)**

*Physics 2: Algebra-based, Advanced Placement* is equivalent to a second semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: AP Physics 1: Algebra-based
- Credits: 2 credit course, 1 credit per semester
- Counts as a Science course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **PHYSICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE**

### **3096 (PHY H IB)**

*Physics Higher Level, International Baccalaureate*, is designed to introduce students to the laws of physics, the experimental skills required in physics and the social and historical aspects of physics as an evolving body of human knowledge about nature. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism and atomic and nuclear physics. Students must complete additional study in six topics: measurement and uncertainties, mechanics, thermal physics, wave phenomena, electromagnetism and quantum physics and nuclear physics. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester

- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, or Core 40 with Technical Honors diplomas, fulfills a Science course requirement for the General and International Baccalaureate diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## **PHYSICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE**

**3098 (PHY S IB)**

*Physics Standard Level, International Baccalaureate* is designed to introduce students to the laws of physics, the experimental skills required, and the social and historical aspects. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. This course is based on curriculum published by the International Baccalaureate Organization. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and a Science course requirement of the General and International Baccalaureate diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.



# ENGINEERING AND TECHNOLOGY

## INTRODUCTION

The Engineering and Technology Department stresses the practical application of knowledge learned throughout the school's curriculum. Emphasis is on hands-on experiences. Basic skills and knowledge are taught and applied to projects and work experiences that broaden the student's understanding of specific skills. Good work ethic, teamwork, and cooperation are emphasized as attributes necessary for successful completion of the courses, future education pursuits, and careers.

## COURSES OFFERED:

- Introduction to Advanced Manufacturing and Logistics (4796)
- Advanced Manufacturing I (5608)
- Advanced Manufacturing II (5606)
- Introduction to Engineering Design (4812/4802)
- Principles of Engineering (4814/5644)
- Aerospace Engineering (4816)
- Civil Engineering and Architecture (4820)
- Digital Electronics (4826)
- Engineering Design and Development (4828)

## INTRODUCTION TO ADVANCED MANUFACTURING AND LOGISTICS 4796 (INT ADV MFTG)

*Introduction to Advanced Manufacturing and Logistics* is an introductory course that specializes in how people use modern manufacturing systems in relationship to society, individuals, and the environment. Students study six major types of material processes: casting and molding; forming; separating; conditioning; finishing; and assembling. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, and chart and graph reading. Students have the opportunity to develop the characteristics employers seek as well as skills that will help them in future endeavors.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ADVANCED MANUFACTURING I 5608 (ADV MFTG I)

*Advanced Manufacturing I* is a course that includes classroom and laboratory experiences in Industrial Technology/Software Controls and Manufacturing Trends. Industrial Technology and Software Controls covers

wiring and schematic diagrams used to design, install, and repair electrical/electronic equipment such as wireless communication devices and programmable controllers. Manufacturing Trends covers basic concepts in manufacturing operations and plant floor layout in the production environment. Offered at Arsenal Technical High School (Career Technology Center), John Marshall Community High School, George Washington Community High School.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: None
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## ADVANCED MANUFACTURING II 5606 (ADV MFTG II)

*Advanced Manufacturing II* introduces basic blueprint reading, Computer Numerical Control (CNC) operation and the skills commonly used in the manufacturing industry. Students use Computer Aided Design software (CAD) to create 3D models and working drawings. The course will focus on three main types of manufacturing automation including Programmable Logic Controllers (PLC), CNC Machines and Robotics. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Advanced Manufacturing I
- Credits: 1-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.

## INTRODUCTION TO ENGINEERING DESIGN 4812 PLTW (IED) 4802 non-PLTW (INT ENG DES)

*Introduction to Engineering Design* is an introductory course where students develop solutions using elements of design and manufacturability concepts. They develop hand sketches using 2D and 3D drawing techniques, and also learn Computer Aided Design (CAD). Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits

- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## PRINCIPLES OF ENGINEERING

4814 PLTW (POE)

5644 non-PLTW (PRNC ENG)

*Principles of Engineering* is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers the opportunity to experience specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Engineering Design
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.

## AEROSPACE ENGINEERING

4816 PLTW (AE)

*Aerospace Engineering* provides students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles and their operating systems. Emphasis includes investigation and research on flight characteristics, analysis of aerodynamic design, and impact of this technology on the environment. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.

## CIVIL ENGINEERING AND ARCHITECTURE

4820 PLTW (CEA)

*Civil Engineering and Architecture* introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Computer software programs allow students opportunities to design, simulate, and evaluate the construction of buildings and communities. Offered at Arsenal Technical High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.

## DIGITAL ELECTRONICS

4826 PLTW (DE)

*Digital Electronics* is a course of study in applied digital logic that encompasses the design and application of electronic circuits and devices found in video games, watches, calculators, digital cameras and thousands of other devices. Instruction includes the application of engineering and scientific principles as well as the use of Boolean algebra to solve design problems. Using computer software that reflects current industry standards, activities provide opportunities for students to design, construct, test, and analyze simple and complex digital circuitry software used to develop and evaluate product designs. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit. Qualifies as a quantitative reasoning course.



## **ENGINEERING DESIGN AND DEVELOPMENT**

### **4828 PLTW (EDD)**

*Engineering Design and Development* is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The course allows students to apply all the skills and knowledge learned in previous pre-engineering courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in critical thinking, problem solving, time management and teamwork skills. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering, and one specialty course
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.



# ENGLISH/ LANGUAGE ARTS

## INTRODUCTION

The State Board of Education requires eight credits in English Language Arts for graduation from Indiana high schools. All courses are based on Indiana's 2014 Academic Standards for English/Language Arts. These courses assist students in understanding all aspects of reading and language arts especially the ability to think critically. In English/Language Arts courses, students study literature and composition. The study of literature provides students with frequent and continual opportunities to:

1. Learn and apply essential skills in reading and writing in order to read proficiently;
2. Read widely to build a better understanding of various types of texts, genres, and national and international cultures;
3. Acquire new information to enable them to meet the needs of the workplace and society as a whole; and
4. Make reading a lifelong pursuit.

The study of composition provides students with frequent and continual opportunities to learn and apply essential writing skills using a process that includes:

1. Prewriting
2. Drafting
3. Revising
4. Editing
5. Producing a final formal product

## COURSES OFFERED:

- English 9 (1002)
- English 10 (1004)
- English 11 (1006)
- English 12 (1008)
- English as a New Language (1012)
- English Language and Composition, Advanced Placement (1056)
- English Literature and Composition, Advanced Placement (1058)
- Advanced English/Language Arts, College Credit (1124)
- Language A: Literature Standard Level, International Baccalaureate (1132)
- Language A: Language and Literature, Standard Level, International Baccalaureate (1138)
- Journalism (1080)
- Mass Media (1084)
- Student Publications (1086)
- Etymology (1060)

- Developmental Reading (1120)
- Library Media (1082)
- Debate (1070)
- Critical Thinking and Argumentation (1074)
- Speech (1076)
- Composition (1090)
- Advanced Composition (1098)
- Creative Writing (1092)
- Language Arts Lab (1010)
- Technical Communications (1096)

## ENGLISH 9

### 1002 (ENG 9)

*English 9* is an integrated study of language, literature, composition and oral communication with a focus on exploring a wide variety of genres and their elements. Students read and respond to both literature and nonfiction appropriate to Grade 9. Students complete a variety of formal and informal writing assignments for varying tasks, purposes and audiences. Students deliver oral presentations and access, analyze and evaluate online information.

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## ENGLISH 10

### 1004 (ENG 10)

*English 10* is an integrated study of language, literature, composition and oral communication with a focus on exploring a wide variety of genres and their elements. Students read and respond to both literature and nonfiction appropriate to Grade 10. Students complete a variety of formal and informal writing assignments for varying tasks, purposes and audiences. Students deliver oral presentations and access, analyze and evaluate online information.

- Recommended Grade Level: 10
- Recommended Prerequisites: English 9
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **ENGLISH 11**

### **1006 (ENG 11)**

*English 11* is an integrated study of language, literature, composition and oral communication with a focus on critical thinking and college/career readiness. Students read and respond to both literature and nonfiction appropriate to Grade 11. Students complete a variety of formal and informal writing assignments for varying tasks, purposes and audiences. Students write and deliver grade-appropriate multimedia presentations and access, analyze and evaluate online information.

- Recommended Grade Level: 11
- Recommended Prerequisites: English 9 and English 10
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **ENGLISH 12**

### **1008 (ENG 12)**

*English 12* is an integrated study of language, literature, composition and oral communication with a focus on critical thinking and college/career readiness. Students read and respond to both literature and nonfiction appropriate to Grade 12. Students complete a variety of formal and informal writing assignments for varying tasks, purposes and audiences. Students write and deliver grade-appropriate multimedia presentations and access, analyze and evaluate online information.

- Recommended Grade Level: 12
- Recommended Prerequisites: English 9, English 10 and English 11
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **ENGLISH AS A NEW LANGUAGE**

### **1012 (ENL)**

*English as a New Language* is an integrated English course based on Indiana's English Language Proficiency (ELP) Standards that includes the study of language, literature, composition and oral communication for Limited English Proficient (LEP) students. The course goal is to improve students' proficiency in listening, speaking, reading, writing and comprehending Standard English. Students study English vocabulary used in fictional texts and content-area texts, speak and write English so that they can function

within the regular school setting and an English-speaking society and deliver oral presentations appropriate to their respective levels of English proficiency.

- Recommended Grade Level: The intent of the ENL course is to move students as successfully, smoothly and rapidly as possible into the Core 40 English courses offered in Grades 9-12.
- Recommended Prerequisites: English proficiency placement test results
- Credits: A two-semester course, one credit per semester. The nature of this course allows for successive semesters of instruction at advanced levels (up to a maximum of four credits).
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **ENGLISH LANGUAGE AND COMPOSITION, ADVANCED PLACEMENT**

### **1056 (LNG/COMP AP)**

*English Language and Composition, Advanced Placement*, focuses on the rhetorical analysis of cross-cultural non-fiction texts with an emphasis on college-level academic writing. Students write numerous expository essays, exploring and synthesizing the effects of rhetorical techniques employed by nonfiction authors. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9 and English 10
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. English 12 could be incorporated into this course, if this course is offered at Grade 12.

## **ENGLISH LITERATURE AND COMPOSITION, ADVANCED PLACEMENT**

### **1058 (LIT/COMP AP)**

*English Literature and Composition, Advanced Placement*, is an accelerated course for those students who show exceptional ability in English. This course uses challenging reading assignments, mainly fiction, as a basis for close reading and thematic analysis of American and English Literature. Frequent writing assignments, both timed and formal, encourage students to develop their abilities to critique and interpret readings in preparation for the AP exam. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9 and English 10
- Credits: 2 credits, a two-semester course with 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. English 12 could be incorporated into this course, if this course is offered at Grade 12.

**ADVANCED ENGLISH/LANGUAGE ARTS,  
COLLEGE CREDIT  
1124 (ADV ENG CC)**

*Advanced English/Language Arts, College Credit*, is an advanced course for Grades 11 and 12. This course covers any English language and composition advanced course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9 and English 10
- Credits: 1 credit per semester. May be offered for successive semesters
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

**LANGUAGE A: LITERATURE STANDARD  
LEVEL, INTERNATIONAL BACCALAUREATE  
1132 (LA LIT S IB)**

*Language A: Literature Standard Level, International Baccalaureate*, is a pre-university literature course in the student's native or best language that introduces students to the analysis of literary texts. It promotes an appreciation of literature and knowledge of the student's own culture along with that of other societies and develops the student's powers of expression, both in oral and written communication. The course emphasizes the skills involved in writing and speaking in a variety of styles and situations and offers the student the opportunity to read at least 10 works grouped by genres. Works are chosen from a broad list of prescribed authors and works representing different literary periods, genres and regions in the target language, as well as literature in translation. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and

International Baccalaureate diplomas or counts as an elective for any diploma.

**LANGUAGE A: LANGUAGE AND LITERATURE  
STANDARD LEVEL, INTERNATIONAL  
BACCALAUREATE  
1138 (LA LAL S IB)**

*Language A: Language and Literature Standard Level, International Baccalaureate*, is a pre-university literacy course in the student's native or best language that introduces students to the critical study and interpretation of written and spoken texts from a wide range of literary and nonliterary genres. Students explore the language in question through its cultural development and use, its media forms and functions and its literature. Students develop skills of literacy and textual analysis and also the ability to present their ideas effectively. The formal analysis of texts is supplemented by awareness that meaning is not fixed, but can change in respect to contexts of production and consumption. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma.

**ELECTIVES**

**JOURNALISM  
1080 (JRNALISM)**

*Journalism* is a study of communications history including the legal boundaries and the ethical principles that guide journalistic writing. It includes a comparison study of journalistic writing to other types of writing. **JOURNALISM PROJECT** for the second credit: Students complete a project, such as a special feature magazine or mini-documentary on a topic of interest or concern. The project demonstrates knowledge, application and progress in Journalism course content. **NOTE:** This is not a student publications course. The designated school newspaper or yearbook course is Student Publications (1086).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: 4 credits in English Language Arts
- Credits: 1 or 2 credits. Second credit may be subtitled Advanced to allow for a successive semester of instruction at an advanced level.

- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **MASS MEDIA**

### **1084 (MASS MEDIA)**

*Mass Media* is the study of the importance of mass media at the local, national, and global levels. Students explore the impact of constant and immediate news, entertainment and persuasive messages. Students use course content to become knowledgeable consumers of mass media and informed citizens in a democratic society. MASS MEDIA PROJECT for the second credit: Students complete a project, such as a media convergence special report using multiple formats that compare different aspects of a topic of interest or concern. The project demonstrates knowledge, application and progress in Mass Media course content.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: 4 credits in English Language Arts
- Credits: 1 or 2 credits. Second credit may be subtitled Advanced to allow for a successive semester of instruction at an advanced level.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **STUDENT PUBLICATIONS**

### **1086 (STDNT PUBS)**

*Student Publications* is a course where students demonstrate their ability to do journalistic writing and design for high school publications, including school newspapers and yearbooks, and in a variety of media formats. Students follow the ethical principles and legal boundaries that guide scholastic journalism and express themselves publicly with meaning and clarity to inform, entertain, or persuade. Students work on high school publications or media staffs to prepare themselves for career paths in journalism, communications, writing or related fields.

- Recommended Grade Level: 9, 10, 11, or 12
- Recommended Prerequisites: Journalism, Mass Media
- Credits: 1-8 credits. The nature of this course allows for successive semesters of instruction at advanced levels. May be offered over three or four years by subtitling the course Beginning, Intermediate, or Advanced.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **ETYMOLOGY**

### **1060 (ETYMOLOGY)**

Etymology is the study and application of the origins of English words and word families from their roots in ancient and modern languages. This intensive course helps students build vocabulary through a knowledge of Greek and Latin prefixes, roots and suffixes. It also explores the meanings of words in written and oral contexts. Emphasis is on the practical use of derivatives including increased writing skills and better understanding of written material. Offered at Crispus Attucks Medical Magnet High School.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: 4 credits in English Language Arts
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.  
NOTE: Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently or after the course.

## **DEVELOPMENTAL READING**

### **1120 (DEV READNG)**

*Developmental Reading* is for students who need additional support in vocabulary development and reading comprehension. It provides study and practice in the strategies necessary to increase reading comprehension. This course emphasizes strategies for adapting the method and speed of reading to the type of material and purpose for reading and for using reading to gather, retain and analyze information. Based on diagnostic testing, teachers develop differentiated instruction to enable each student to read and write with more confidence.

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 1-2 credits. This course allows for two semesters of instruction while the student is in Grade 9 AND enrolled in English 9.
- May fulfill an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma.

## **LIBRARY MEDIA**

### **1082 (LBRY MEDIA)**

*Library Media* is the study and application of procedures based on library science theory. Students examine the role of the library and library technology. Students use elec-

tronic resources for specific research needs and use multimedia presentation technology for practical applications.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **DEBATE**

### **1070 (DEBATE)**

*Debate* is the study and application of the basic principles of debate, involving support for the basic types of arguments (induction, deduction, causation) and debate strategies (affirmative or negative argument construction and extension, case development, refutation or rebuttal of argument claims and evidence and persuasive speaking). **DEBATE PROJECT:** Students complete a project, such as a mock debate or trial, participation in a forum, competition or tournament, or an argument supporting or opposing different sides of a major issue, which demonstrates knowledge, application and presentation progress in the Debate course content.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Speech
- Credits: 1 or 2 credits. The nature of this course allows for the second semester of instruction at an advanced level.
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **CRITICAL THINKING AND ARGUMENTATION**

### **1074 (CRIT THINK)**

*Critical Thinking and Argumentation* (formerly Group Discussion) is a study of deductive and inductive logic, including logical fallacies, and should challenge students to think critically, analytically and philosophically. Students learn to formulate thoughtful inquiry questions, connect ideas or concepts, challenge ideas and concepts and rephrase ideas when appropriate. Active class participation is essential, including persistent questioning, rational discussion and reasoned argumentation.

- Recommended Grade Level: Grades 11-12
- Recommended Prerequisites: 4 credits in English Language Arts
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **SPEECH**

### **1076 (SPEECH)**

Speech is a public speaking course requiring students to use proper speech craft, structure, outlining techniques and presentation. Students complete required reading and writing related to speaking opportunities. Students deliver a variety of speeches appropriate to different audiences and purposes. Speech helps the students develop both self-confidence and the skills needed for success in college speaking courses, as well as future communication activities. **NOTE:** Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently or after the course.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 or 2 credits
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **COMPOSITION**

### **1090 (COMP)**

*Composition* is a course that requires students to demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing and style. Students read classic and contemporary literature or articles and use appropriate works as models for writing. Students write a variety of types of compositions with a focus on fictional narratives, reflective compositions, academic essays and responses to literature. **NOTE:** Students are strongly encouraged to combine this course with a literature course that they take before, concurrently or after the course.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9 and English 10
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **ADVANCED COMPOSITION**

### **1098 (ADV COMP)**

*Advanced Composition* is designed to enhance the writing and communication skills of the students through a variety of formal and informal, text-dependent compositions appropriate to a variety of tasks, purposes and audiences. Writing assignments build upon previous composition experiences and prepare students for future college writing courses. **NOTE:** Students are strongly encouraged to

combine this course with a literature course that they take before, concurrently or after the course.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9, English 10 and Composition
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **CREATIVE WRITING**

### **1092 (CREAT WRIT)**

*Creative Writing* is a study and application of rhetorical writing strategies for prose and poetry. Using the writing process, students demonstrate a command of the nuances of language and vocabulary, English language conventions, an awareness of the audience, the purposes for writing and the style of their own writing. **CREATIVE WRITING PROJECT:** Students complete a project, such as a short story, a narrative or epic poem, a persuasive speech or letter, a book review, a script or short play or other creative composition, which demonstrates knowledge, application and writing progress in the Creative Writing course content. **NOTE:** Students are strongly encouraged to combine this course with a literature course that they take before, concurrently or after the course.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9 and English 10
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **LANGUAGE ARTS LAB**

### **1010 (LANG LAB)**

*Language Arts Lab* is a course designed for students who need additional support in language arts, especially in writing. Students write text-based compositions with varying purposes, audiences and tasks. Students also receive support with reading fluency and comprehension. Based on diagnostic testing, teachers develop differentiated instruction to enable each student to read and write with more confidence.

- Recommended Grade Level: 10
- Recommended Prerequisites: English 9
- Credits: 1-2 credits. This course allows for two semesters of instruction while the student is in Grade 10 AND enrolled in English 10.

- May fulfill an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma.

## **TECHNICAL COMMUNICATIONS**

### **1096 (TECH COMM)**

*Technical Communications* is the study and application of the processes and conventions needed for effective technical communication. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing and style. **TECHNICAL COMMUNICATIONS PROJECT:** Students complete a project, such as a multimedia advertising campaign or a multimedia proposal of an action plan, which demonstrates knowledge, application and writing progress in the Technical Communications course content. **NOTE:** Students are strongly encouraged to combine this course with a literature course that they take before, concurrently or after the course. Technical Business Communications may be substituted for this course if it meets Composition course (1090) requirements and students are completing a General diploma.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: English 9, English 10 or teacher recommendation
- Credits: 1 credit
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas





# **FAMILY AND CONSUMER SCIENCES**

## INTRODUCTION

Family and Consumer Sciences has roots in both academic and career/technical (vocational) education and easily reaches beyond the education system into the community as it focuses on the needs of individuals and families.

## COURSES OFFERED:

- Child Development (5362)
- Advanced Child Development (5360)
- Culinary Arts and Hospitality Management (5440)
- Advanced Culinary Arts (5346)
- Nutrition and Wellness (5342)
- Advanced Nutrition and Wellness (5340)

## CHILD DEVELOPMENT

### 5362 (CHLD DEV)

*Child Development* is a course that benefits students who plan to one day be parents or pursue a profession in a child-related career such as education, child psychology, pediatric medicine, or family therapy. Students will investigate current issues affecting children and families and study conception, prenatal development and the birth process. An in-depth evaluation of a child's physical, social, emotional, and intellectual development is conducted from birth through the preschool years. Additional child-related topics such as brain development, caring for children with special needs, discipline, creative play, and children's literature are also explored.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, 1 credit maximum
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ADVANCED CHILD DEVELOPMENT

### 5360 (ADVCHLDDEV)

*Advanced Child Development* is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. It includes the study of professional and ethical issues in child growth and development, and child development theories, research, and best practices: child health and wellness; teaching and guiding children; and career exploration in child development and nurturing.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Child Development
- Credits: 1 credit per semester, 2 credits maximum

- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## CULINARY ARTS AND HOSPITALITY MANAGEMENT

### 5440 (CULART HOSP)

*Culinary Arts and Hospitality Management* prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the hospitality industry. Major topics include: introduction to the hospitality industry; food safety and personal hygiene; sanitation and safety; regulations, procedures, and emergencies; basic culinary skills; culinary math; and food preparation techniques and applications: principles of purchasing, storage, preparation, and service of food and food products. Students will apply basic principles of sanitation and safety in order to maintain safe and healthy food service and hospitality environments, use and maintain related tools and equipment, and apply management principles in food service or hospitality operations. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be either school-based, "on-the-job," or a combination of the two. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 1-3 credits per semester, 6 credits maximum
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## ADVANCED CULINARY ARTS

### 5346 (ADV CUL ARTS)

*Advanced Culinary Arts* prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the food industry. Major topics for this advanced course include: basic baking theory and skills; introduction to breads and pastry arts; nutrition; nutrition accommodations and adaptations; cost control and purchasing; and current marketing trends. Instruction and intensive laboratory experiences include commercial applications of principles of nutrition; aesthetic and sanitary selection; purchasing; storage; preparation; and service of food and food products using and maintaining related tools and equipment, baking and pastry arts skills. Students will gain famil-

ilarity with managing operations in food service, food science, or hospitality establishments, and providing for the dietary needs of persons with special requirements. Intensive laboratory experiences with commercial applications are a required component of this course of study. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Culinary Arts and Hospitality Management
- Credits: 1-3 credits per semester, 6 credits maximum
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **NUTRITION AND WELLNESS**

### **5342 (NTRN WLNS)**

*Nutrition and Wellness* is an introduction to food and nutrition, safety and sanitation, consumer buying skills, food storage, and food preparation skills. Lab experiences include a variety of techniques in preparing grains, fruits, vegetables, dairy products and meats. This course will enable students to realize benefits of sound nutrition and apply these principles to their daily lives.

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, 1 credit maximum
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **ADVANCED NUTRITION AND WELLNESS**

### **5340 (ADV NTRN WEL)**

*Advanced Nutrition and Wellness* is a course which provides an extensive study of nutrition. This is a project-based course; utilizing higher-order thinking, communication, leadership and management processes. Topics include extensive study of major nutrients; nutritional standards across the lifespan; influences on nutrition/food choices; technological and scientific influences; and career exploration in this field. Laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to nutrition, food safety, and sanitation.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 1 credit per semester, 2 credits maximum
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.



# FINE ARTS

## INTRODUCTION

Fine arts programming provides students the opportunity to participate in a variety of hands-on courses to enhance engagement with the arts. The purpose of each fine arts curriculum is to promote participation in the arts by developing skilled creators, performers, critics, listeners, and observers of the arts. Students can use the arts as a means of: (1) self-expression and communication, (2) development of critical thinking skills, (3) self-knowledge and understanding of the world around them, and (4) increasing awareness of the artistic heritage of other cultures, as well as their own. In order for this to happen, students must be immersed in opportunities to learn about the arts, perform and create in one or more of the art forms, and learn to analyze and critique the arts.

## COURSES OFFERED:

- Dance Performance: Ballet, Modern, Jazz, or Ethnic-Folk (4140)
- Applied Music (4200)
- Beginning Chorus (4182)
- Intermediate Chorus (4186)
- Advanced Chorus (4188)
- Choral Chamber Ensemble (4180)
- Vocal Jazz (4184)
- Beginning Concert Band (4160)
- Intermediate Concert Band (4168)
- Advanced Concert Band (4170)
- Jazz Ensemble (4164)
- Beginning Orchestra (4166)
- Intermediate Orchestra (4172)
- Advanced Orchestra (4174)
- Instrumental Ensemble (4162)
- Music History and Appreciation (4206)
- Piano and Electronic Keyboard (4204)
- Music Theory, Advanced Placement (4210)
- Technical Theatre (4244)
- Advanced Technical Theatre (4252)
- Theatre Arts (4242)
- Advanced Theatre Arts (4240)
- Advanced Acting (4250)
- Theatre Arts History (4246)
- Theatre Arts, Special Topics (4245)
- Theatre Production (4248)
- Art History (4024)
- Ceramics (4040)
- Digital Design (4082)
- Drawing (4060)
- Fiber Arts (4046)

- Fine Arts Connections (4026)
- Introduction to Two-Dimensional Art (4000)
- Advanced Two-Dimensional Art (4004)
- Introduction to Three-Dimensional Art (4002)
- Advanced Three-Dimensional Art (4006)
- Painting (4064)
- Photography (4062)
- Printmaking (4066)
- Sculpture (4044)
- Studio Art (Drawing Portfolio), Advanced Placement (4048)
- Studio Art (2D Design Portfolio), Advanced Placement (4050)
- Studio Art (3D Design Portfolio), Advanced Placement (4052)
- Visual Arts, Higher Level, International Baccalaureate (4090)
- Visual Arts, Standard Level, International Baccalaureate (4092)

## DANCE

### DANCE PERFORMANCE:

#### **BALLET, MODERN, JAZZ, OR ETHNIC-FOLK (L) 4140 (DNC PERF)**

*Dance Performance* is designed to develop techniques through individual and group instruction in performance and skills. Students will develop the ability to express their thoughts, perceptions, feelings, and images through movement. Instruction will focus on developing students' technique, flexibility, and knowledge of dance as a form of artistic communication. Students will also learn how to observe and analyze live and recorded dance performances to strengthen their practice. Offered at Broad Ripple Magnet High School.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## MUSIC

### **APPLIED MUSIC (L)**

#### **4200 (APPL MUS)**

*Applied Music* offers high school students the opportunity to receive small group or private instruction

designed to develop and refine performance skills. A variety of music methods and selections are utilized to cultivate students' abilities in performing, creating, and responding to music.

- Recommended Grade Level: 10-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **BEGINNING CHORUS (L)**

### **4182 (BEG CHOR)**

*Beginning Chorus* provides students with opportunities to develop musicianship and performance skills through ensemble and solo singing. Chorus classes provide opportunities for performing, creating, and responding to music. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **INTERMEDIATE CHORUS (L)**

### **4186 (INT CHOR)**

*Intermediate Chorus* provides students with opportunities to develop musicianship and performance skills through ensemble and solo singing. Intermediate Chorus classes provide extended opportunities for performing, creating, and responding to music. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning Chorus
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with

Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **ADVANCED CHORUS (L)**

### **4188 (ADV CHOR)**

*Advanced Chorus* provides students with opportunities to develop musicianship and performance skills through ensemble and solo singing. Chorus classes provide extended opportunities for performing, creating, and responding to music. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning and Intermediate Chorus
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **CHORAL CHAMBER ENSEMBLE (L)**

### **4180 (CHRL ENSEM)**

*Choral Chamber Ensemble* provides students with opportunities to develop musicianship and performance skills through specialized small group instruction. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **VOCAL JAZZ (L)**

### **4184 (VOC JAZZ)**

*Vocal Jazz* provides students with opportunities to develop musicianship and performance skills through group and individual settings for the study and performance of vocal jazz. Students are required to participate in rehearsal or performance opportunities outside of the

school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Offered at Broad Ripple Magnet High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **BEGINNING CONCERT BAND (L)**

#### **4160 (BEG BAND)**

*Beginning Concert Band* provides students with a balanced comprehensive study of music with an ensemble. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **INTERMEDIATE CONCERT BAND (L)**

#### **4168 (INT BAND)**

*Intermediate Concert Band* provides students with a balanced comprehensive study of music with an ensemble, appropriate for the intermediate level. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning Concert Band
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **ADVANCED CONCERT BAND (L)**

#### **4170 (ADV BAND)**

*Advanced Concert Band* provides students with a balanced comprehensive study of music with an ensemble, appropriate for the advanced level. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning and Intermediate Concert Band
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **JAZZ ENSEMBLE (L)**

#### **4164 (JAZZ ENS)**

*Jazz Ensemble* provides students with the opportunity to develop musicianship and performance skills through group and individual settings for the study and performance of varied styles of instrumental jazz. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Offered at Broad Ripple Magnet High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Student participants must also be receiving instruction in another band or orchestra class offering at the discretion of the director.
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for the Core 40 with Academic Honors diploma if students are enrolled in another band or orchestra course. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **BEGINNING ORCHESTRA (L)**

#### **4166 (BEG ORCH)**

*Beginning Orchestra* provides students with a balanced comprehensive study of music through string and/or full orchestra, appropriate for beginning students. Students are required to participate in rehearsal or performance opportunities outside of the school day that

support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **INTERMEDIATE ORCHESTRA (L)**

#### **4172 (INT ORCH)**

*Intermediate Orchestra* provides students with a balanced comprehensive study of music through string and/or full orchestra, appropriate for the intermediate level. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning Orchestra
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **ADVANCED ORCHESTRA (L)**

#### **4174 (ADV ORCH)**

*Advanced Orchestra* provides students with a balanced comprehensive study of music through the string and/or full orchestra, appropriate for the advanced level. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Beginning and Intermediate Orchestra
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **INSTRUMENTAL ENSEMBLE (L)**

#### **4162 (INSTR ENS)**

*Instrumental Ensemble* provides students with a balanced comprehensive study of chamber ensemble and solo literature. Students are required to participate in rehearsal or performance opportunities outside of the school day that support and extend learning in the classroom. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals.

- Recommended Grade Level: 10-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **MUSIC HISTORY AND APPRECIATION**

#### **4206 (MUS HIST)**

*Music History and Appreciation* provides students with instruction designed to explore major musical styles and periods in relation to world history and culture. Activities include analyzing and describing music; evaluating music and performances; and understanding relationships between music and the other arts, as well as disciplines outside of the arts.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1 or 2 semesters, 1 credit each semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **PIANO AND ELECTRONIC KEYBOARD (L)**

#### **4204 (PIANO KEY)**

*Piano and Electronic Keyboard* offers students keyboard classes in order to develop proficiency and musicianship. Students will perform with proper posture, hand position, fingering, rhythm, and articulation. They will create melodic material; perform simple accompaniments; listen to, analyze, sight-read, and study a variety of keyboard literature; study the elements of music from a variety of styles; and make interpretive decisions. Offered at Northwest Community High School.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None



- Credits: 1 credit per semester. This course allows for continued semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **MUSIC THEORY, ADVANCED PLACEMENT**

### **4210 (MUS TH AP)**

*Music Theory, Advanced Placement* is intended for high school students who have completed music studies comparable to a first-year college course in music theory. Per the content established by the College Board, students will study aspects of melody, harmony, texture, rhythm, form, musical analysis, elementary composition, history, and style. The student's ability to read and write music is fundamental to this course. It is also assumed that the student has acquired basic performance skills in voice or on an instrument.

Offered at Broad Ripple Magnet High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisite: None
- Credits: 2-semester course, 1 credit each semester.
- Fulfills requirement for two credits for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **THEATRE ARTS**

### **TECHNICAL THEATRE (L)**

#### **4244 (TECH THTR)**

*Technical Theatre* provides students the opportunity to engage in the process of designing, building, managing, and implementing the technical aspects of a production. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and importance of theatre supporters in their community.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. The nature of this course allows for two continued semesters (Technical Theatre I and Technical Theatre II) of instruction at this level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **ADVANCED TECHNICAL THEATRE (L)**

#### **4252 (ADV TECH TH)**

*Advanced Technical Theatre* provides students with the opportunity to actively lead and supervise in the process of designing, building, managing, programming, drafting, and implementing the technical aspects of a production. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will investigate technical theatre careers and develop a plan for possible employment or further education, attend and critique theatrical productions, and volunteer to support theatre in their community.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Technical Theatre I and II (L)
- Credits: 1 credit per semester. The nature of this course allows for two continued semesters (Advanced Technical Theatre I and Advanced Technical Theatre II) of instruction at this level.
- Fulfills requirement for a Fine Arts credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **THEATRE ARTS (L)**

#### **4242 (THTR ARTS)**

*Theatre Arts* provides students with the opportunity to analyze plays, create scripts, create scenic designs, and develop acting skills. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and importance of theatre supporters in their community.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. The nature of this course allows for two continued semesters (Theatre Arts I and Theatre Arts II) of instruction at this level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **ADVANCED THEATRE ARTS (L)**

#### **4240 (ADV THTR)**

*Advanced Theatre Arts* provides students with the opportunity to further develop acting skills through monologues, scenes, improvisation and script analysis. Stu-

dents will create scenic designs for existing plays and will build characters through observation and analysis. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will explore careers in theatre arts and begin to develop a collection of their work.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Theatre Arts I and II (I)
- Credits: 1 credit per semester. The nature of this course allows for two continued semesters (Advanced Theatre Arts I and Advanced Theatre Arts II) of instruction at this level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **ADVANCED ACTING (L)**

#### **4250 (ADV ACTING)**

*Advanced Acting* provides students with the opportunity to research, create, and perform characters through script analysis, observation, collaboration and rehearsal. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will explore career opportunities in the theatre by attending plays, meeting actors, and discussing their work.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Theatre Arts
- Credits: 1 credit per semester. The nature of this course allows for two continued semesters (Advanced Acting I and Advanced Acting II) of instruction at this level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **THEATRE ARTS HISTORY**

#### **4246 (THTR ART HST)**

*Theatre Arts History* provides students with the opportunity to read and discuss significant plays from various time periods and explore the relationship between theatre and history. These activities combine elements of culture, analysis, response, creative process, and integrated studies. Students will explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the role and the importance of theatre supporters in the community.

- Recommended Grade Level: 9-12

- Recommended Prerequisite: None
- Credits: 1-semester course, 1 credit
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **THEATRE ARTS, SPECIAL TOPICS (L)**

#### **4245 (THTR ART ST)**

*Theatre Arts, Special Topics* provides students with the opportunity to focus on a specific subject related to theatre arts such as: Shakespeare, Directing, Arts Management, and other areas of study. These activities combine elements of theatre history, culture, analysis, response, creative process, and integrated studies. Students will explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the roles and responsibilities of theatre supporters in the community.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Theatre Arts
- Credits: 1-semester course, 1 credit
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **THEATRE PRODUCTION (L)**

#### **4248 (THTR PROD)**

*Theatre Production* provides students with the opportunity to take on responsibilities associated with rehearsing and presenting a fully developed theatre production. They will read and analyze plays to prepare for production, create a design for a production, including set, lighting, sound and costumes; perform roles in a production; and direct (or assist in) a production. Students will investigate a theatre arts career and develop a plan for potential employment or further education. Offered at Broad Ripple Magnet High School.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1 credit per semester. The nature of this course allows for two successive semesters (Theatre Production I and Theatre Production II) of instruction at this level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## VISUAL ARTS

### ART HISTORY

#### 4024 (ART HIST)

*Art History* provides opportunities for students to study works of art and artifacts from world cultures, engage in historically relevant studio activities, and utilize research skills to discover social, political, economic, technological, environmental, and historical trends and connections. Students will analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 9-10, 11, or 12
- Recommended Prerequisite: None
- Credits: 1-semester course, 1 credit
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### CERAMICS (L)

#### 4040 (CERAMICS)

*Ceramics* provides opportunities for students to create works of art in clay utilizing the processes of hand building, molds, wheel throwing, slip and glaze techniques, and the firing processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration and incorporate literacy and presentational skills. Offered at Arsenal Technical High School and Northwest Community High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### DIGITAL DESIGN (L)

#### 4082 (DIG DESIGN)

*Digital Design* incorporates desktop publishing, multi-me-

dia, digitized imagery, computer animation, and web design. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### DRAWING (L)

#### 4060 (DRAWING)

*Drawing* provides opportunities for students to utilize processes including sketching, rendering, contour, gesture, and perspective drawing. Students will use a variety of media such as pencil, chalk, pastels, charcoal, and pen and ink. Students will relate art to other disciplines and discover opportunities for integration. They will employ the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### FIBER ARTS (L)

#### 4046 (FBR ARTS)

*Fiber Arts* provides opportunities for students to create fiber art works with loom and off loom construction, dyeing, coiling, and stitchery. They will reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students will utilize the resources of art museums,

galleries, and studios, and identify art-related careers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **FINE ARTS CONNECTIONS**

### **4026 (FN ART CONN)**

*Fine Arts Connections* provides opportunities for students to create works encompassing multiple disciplines, literacies and sign systems. Students will reflect upon and define their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about works and the nature of the arts. Students will incorporate presentational skills and utilize the resources of the arts community while identifying art-related careers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: two or more credits in visual art, music, theatre, or dance.
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **INTRODUCTION TO TWO-DIMENSIONAL ART (L)**

### **4000 (2D ART)**

*Introduction to Two-Dimensional Art* provides opportunities for students to explore historical and cultural backgrounds and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 9-12
- Recommended Prerequisite: None
- Credits: 1-semester course, 1 credit
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for

the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **ADVANCED TWO-DIMENSIONAL ART (L)**

### **4004 (ADV 2D ART)**

*Advanced Two-Dimensional Art* provides opportunities for students to explore historical and cultural backgrounds and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized. Counts as a directed elective or elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **INTRODUCTION TO THREE-DIMENSIONAL ART (L)**

### **4002 (3D ART)**

*Introduction to Three-Dimensional Art* provides opportunities for students to explore historical and cultural connections, analyze, interpret, theorize, and make informed judgments about artwork and the nature of art. Students will create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1-semester course, 1 credit
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **ADVANCED THREE-DIMENSIONAL ART (L)**

### **4006 (ADV 3D ART)**

*Advanced Three-Dimensional Art* provides opportunities for students to explore historical and cultural connec-

tions, analyze, interpret, theorize, and make informed judgments about artwork and the nature of art. Students will create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **PAINTING (L)**

### **4064 (PAINTING)**

*Painting* provides students opportunities to create abstract and realistic paintings using a variety of materials including mixed media, watercolor, oil, and acrylics as well as techniques such as stippling, gouache, wash, and impasto. Students will reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **PHOTOGRAPHY (L)**

### **4062 (PHOTOGRPH)**

*Photography* provides opportunities for students to create photographs, films, and videos utilizing a variety of digital tools and dark room processes. Students will reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities

for integration; and incorporate literacy and presentational skills. Offered at Arsenal Technical High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **PRINTMAKING (L)**

### **4066 (PRNTMKG)**

*Printmaking* provides opportunities for students to create abstract and realistic prints using a variety of materials such as linocut, woodcut, stencil, silkscreen and photo silkscreen. Students will utilize processes including etching, relief, and lithography to explore a variety of ideas and problems. Students will reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **SCULPTURE (L)**

### **4044 (SCULPT)**

*Sculpture* provides opportunities for students to utilize materials including plaster, clay, metal, paper, wax, and plastic to create portfolio-quality works. They will create realistic and abstract sculptures utilizing subtractive and additive processes of carving, modeling, construction, and assembling. Students will reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art (L)
- Credits: 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level.
- Fulfills requirement for a credit for Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **STUDIO ART (DRAWING PORTFOLIO), ADVANCED PLACEMENT 4048 (ART DRP AP)**

*Studio Art (Drawing Portfolio), Advanced Placement* is designed to address a very broad interpretation of drawing issues and media. Light and shade, line quality, rendering of form, composition, and illusion of depth are issues addressed through this course.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Advanced laboratory visual arts courses
- Credits: 2-semester course, 1 credit per semester
- Fulfills requirement for 2 credits for the Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **STUDIO ART (two-dimensional DESIGN PORTFOLIO), ADVANCED PLACEMENT 4050 (ART 2D AP)**

*Studio Art (two-dimensional Design Portfolio), Advanced Placement* is intended to address two-dimensional (two-dimensional) design issues. The principles of design articulated through the visual elements help guide artists in making decisions about how to organize the elements on a picture plane to communicate content. For this portfolio, students are asked to demonstrate proficiency in two-dimensional design through any two-dimensional medium or process including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, illustration, painting, and printmaking.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Advanced laboratory two-dimensional visual arts courses
- Credits: 2-semester course, 1 credit per semester
- Fulfills requirement for 2 credits for the Core 40 with Academic Honors diploma. Counts as an elective

for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **STUDIO ART (three-dimensional DESIGN PORTFOLIO), ADVANCED PLACEMENT 4052 (ART 3D AP)**

*Studio Art (three-dimensional Design Portfolio), Advanced Placement* is intended to address sculptural issues as related to depth and space. Design involves purposeful decision making about how to use the elements and principles of art in an integrative way. For this portfolio, students are asked to demonstrate proficiency of three-dimensional design through any three-dimensional approach including, but not limited to, figurative or nonfigurative sculpture, architectural models, metal work, ceramics, and three-dimensional fiber arts.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Advanced laboratory three-dimensional visual arts courses
- Credits: 2-semester course, 1 credit per semester
- Fulfills requirement for 2 credits for the Core 40 with Academic Honors diploma. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

### **VISUAL ARTS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE 4090 (VA H IB)**

*Visual Arts Higher Level, International Baccalaureate*, enables students to learn about themselves and others through individual and collaborative engagement with the visual arts. The core elements in common to each course are introduction to art concepts, criticism and analysis, acquisition of studio technical and media skills and relation of art to sociocultural and historical contexts. This course is for the specialist visual arts student with creative and imaginative abilities who may pursue the visual arts at the university or college level. It consists of two compulsory parts: studio work—the practical exploration and artistic production—and research workbooks—independent critical research and analysis, visual and written, in more than one culture. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma.

**VISUAL ARTS STANDARD LEVEL,  
INTERNATIONAL BACCALAUREATE  
4092 (VA S IB)**

*Visual Arts Standard Level, International Baccalaureate*, enables students to learn about themselves and others through individual and collaborative engagement with the visual arts. The core elements in common to each course are introduction to art concepts, criticism and analysis, acquisition of studio technical and media skills and relation of art to sociocultural and historical contexts. This course is for the specialist visual arts student with creative and imaginative abilities who may pursue the visual arts at the university or college level. It consists of two compulsory parts: studio work—the practical exploration and artistic production—and research workbooks—independent critical research and analysis, visual and written, in more than one culture. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma.



# HEALTH AND PHYSICAL EDUCATION



## INTRODUCTION

Health and Physical Education courses provide an opportunity for students to explore habits and lifestyles that enable them to maintain a healthy disposition. By examining how the human body works and what the benefits of exercise and nutritional choices are, students learn both short- and long-term issues associated with health.

## COURSES OFFERED:

- Current Health Issues (3508)
- Health & Wellness Education (3506)
- Elective Physical Education (3560)
- Physical Education I (3542)
- Physical Education II (3544)

## CURRENT HEALTH ISSUES

### 3508 (CHI)

*Current Health Issues* focuses on specific health issues and/or emerging trends in health and wellness, including but not limited to personal health and wellness, non-communicable and communicable diseases, nutrition, mental and emotional health, tobacco-prevention, alcohol and other drug-prevention, human development and family health, health care and/or medical treatments and national and/or international health issues. This is an elective course that can be aligned to Indiana's Academic Standards for Health & Wellness.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Health & Wellness Education
- Credits: 1 credit, 1 semester course
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## HEALTH & WELLNESS EDUCATION

### 3506 (HLTH&WELL)

*Health & Wellness Education* provides the basis to help students adopt and maintain healthy behaviors. This course provides students with the knowledge and skills of health and wellness core concepts: analyzing influences; accessing information; developing interpersonal communication, decision-making and goal-setting skills; increasing health-enhancing behaviors and developing health and wellness advocacy skills. This is a course based on Indiana's Academic Standards for Health & Wellness.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: 8th grade health education
- Credits: 1 credit, 1 semester course

- Fulfills the Health & Wellness requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors diplomas.

## ELECTIVE PHYSICAL EDUCATION (L)

### 3560 (ELECT PE)

*Elective Physical Education* identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardiorespiratory endurance, muscular strength and endurance, flexibility and body composition necessary for a healthy and productive life. Ongoing assessment includes both written and performance-based skill evaluation.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, trimester or upon mastery of course standards. There is no maximum amount of credits that may be earned provided that there is no course or skill level duplication.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## PHYSICAL EDUCATION I (L)

### 3542 (PHYS ED)

*Physical Education I* focuses on instructional strategies through a planned, sequential and comprehensive physical education curriculum that provides students the opportunities to actively participate in at least four of the following: team sports, dual sport activities, individual physical activities, outdoor pursuits, self-defense and martial arts, aquatics, gymnastics and dance. All are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: 8th grade physical education
- Credits: 1 credit per semester
- Fulfills part of the Physical Education requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **PHYSICAL EDUCATION II (L)**

**3544 (PHYS ED II)**

*Physical Education II* focuses on instructional strategies through a planned, sequential and comprehensive physical education curriculum that provides students the opportunities to actively participate in four of the following that were not in Physical Education I: team sports, dual sport activities, individual physical activities, outdoor pursuits, self-defense and martial arts, aquatics, gymnastics and dance. All are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Physical Education I
- Credits: 1 credit per semester
- Fulfills part of the Physical Education requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.



**HEALTH SCIENCE**

## INTRODUCTION

Health Science is a secondary career education program for students interested in pursuing a career in health care. Work-based learning may include job shadowing, internships, and other clinical experiences that allow students to observe and learn from health care professionals. Every Health Science program provides students with opportunities to explore a variety of health careers and make realistic and satisfying career choices. Students also develop their leadership potential through involvement in HOSA, a student leadership organization for health science students. Students in the Health Science Career Cluster leave high school better prepared for further education and/or immediate employment in the health care field.

## COURSES OFFERED:

- Anatomy & Physiology (5276)
- Dental Careers I (5203)
- Dental Careers II (5204)
- Health Science Education I (5282)
- Health Science Education II: Nursing (5284)
- Health Science Education II: Physical Therapy (5215)
- Medical Terminology (5274)
- PLTW Biomedical Innovation (5219)
- PLTW Human Body Systems (5216)
- PLTW Medical Interventions (5217)
- PLTW Principles of Biomedical Sciences (5218)

## ANATOMY & PHYSIOLOGY

### 5276 (A & P)

*Anatomy & Physiology* students investigate concepts related to Health Science, with emphasis on the interdependence of systems and contributions of each system to the maintenance of a healthy body. Introduces students to the cell and covers tissues, integument, skeleton, muscular system and nervous systems as an integrated unit. Students learn the structure, organization and function of the various components of the healthy body.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Biology
- Credits: 1 credit per semester, maximum of 2 credits
- Fulfills a Core 40 Science course requirement for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas or counts as an elective for any diploma. This course is aligned with postsecondary courses for dual credit.

## DENTAL CAREERS I

### 5203 (DENTCRRS I)

*Dental Careers I* prepares the student for an entry-level dental assisting position. Emphasis is placed on the clinical environment, chair-side assisting, equipment/instrument identification, tray setups, sterilization and characteristics of microorganisms and disease control. In addition, oral, head & neck anatomy, basic embryology, histology, tooth morphology, charting dental surfaces and illness are all introduced. Leadership skills are developed and community service provided through HOSA. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## DENTAL CAREERS II

### 5204 (DENTCRRS II)

*Dental Careers II* is a course designed to provide dental assisting students with specific knowledge of the administrative planning, bookkeeping, recall programs, banking, tax records, computer software, insurance, office practices and management related to a dental office. In addition, students practice oral and maxillofacial surgery, periodontics, endodontics, prosthodontics, pediatric dentistry, and orthodontics. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Dental Careers I
- Credits: 3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## HEALTH SCIENCE EDUCATION I

### 5282 (HLTH ED I)

*Health Science Education I* content covers skill areas common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, health care systems, anatomy, physiology and medical terminology. Lab experiences are organized and planned around the activities associated with the student's career objectives. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## **HEALTH SCIENCE EDUCATION II: NURSING** **5284 (HSE II NURS)**

*Health Science Education II: Nursing* is an extended laboratory experience at the student's choice of clinical site. It is designed to provide students the opportunity to assume the role of nurse assisting. The students practice technical skills previously learned in the classroom, including information on the health care system and employment opportunities at a variety of entry levels, an overview of the health care delivery systems, health care teams and legal and ethical considerations. It prepares students with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. These skills include: recording patient medical histories and symptoms, providing medicine and treatments, consulting doctors, operating and monitoring medical equipment, performing diagnostic tests, teaching patients and families how to manage illness or injury and performing general health screenings. Offered at Arsenal Technical High School (Career Technology Center) and Crispus Attucks Medical Magnet High School.

- Recommended Grade Level: 12
- Recommended Prerequisites: Health Science Education I
- Credits: 3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **HEALTH SCIENCE EDUCATION II:** **PHYSICAL THERAPY** **5215 (HAS II PT)**

*Health Science Education II: Physical Therapy* is an extended laboratory experience at the student's choice of clinical site. It is designed to provide students the opportunity to assume the role of physical therapy assistant and practice technical skills previously learned in the classroom, including information on the health care system, employment opportunities at a variety of entry levels, an overview of the health care delivery systems, health care teams and legal & ethical considerations. Offered at

Crispus Attucks Medical Magnet High School.

- Recommended Grade Level: 12
- Recommended Prerequisites: Health Science Education I
- Credits: 3 credits per semester, maximum of 6 credits.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **MEDICAL TERMINOLOGY** **5274 (MED TERMS)**

*Medical Terminology* prepares students with language skills necessary for effective, independent use of health and medical reference materials. This course builds skills in pronouncing, spelling and defining new words encountered in verbal and written information. Students acquire skills in interpreting medical records and communicating accurately and logically. Emphasis is on forming a foundation for a medical vocabulary including meaning, spelling and pronunciation. Medical abbreviations, signs and symbols are also included. Offered at Crispus Attucks Medical Magnet High School.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## **PLTW BIOMEDICAL INNOVATION** **5219 (BIO INN)**

*PLTW Biomedical Innovation* is a capstone course designed to give students the opportunity to design innovative solutions for the health challenges of the 21st century. Students work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering and public health. They also have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital or physician's office or with someone else in the industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and health care community. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 12
- Recommended Prerequisites: Principles of the Biomedical Sciences, Human Body Systems and Medical Interventions

- Credits: 1 credit per semester, maximum of 2 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for dual credit.

## **PLTW HUMAN BODY SYSTEMS**

### **5216 (HUMAN SYST)**

*PLTW Human Body Systems* is a course designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex body systems. Using a focus on human health, students employ a variety of monitors to examine body systems (respiratory, circulatory and nervous) at rest and under stress and observe the interactions between them. Students use appropriate software to design and build systems to monitor body functions. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 10
- Recommended Prerequisites: Principles of the Biomedical Sciences
- Credits: 1 credit per semester, maximum of 2 credits
- Fulfills a Core 40 Science elective requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma. This course is aligned with postsecondary courses for dual credit.

## **PLTW MEDICAL INTERVENTIONS**

### **5217 (MED INTERV)**

*PLTW Medical Interventions* is a course that studies medical practices, including interventions to treat diseases and maintain health. Using a project-based learning approach, students investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation and supportive care. Students also study the design and development of various interventions, including vascular stents, cochlear implants and prosthetic limbs. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 11
- Recommended Prerequisites: Principles of the Biomedical Sciences and Human Body Systems
- Credits: 1 credit per semester, 2 credits maximum
- Fulfills a Core 40 Science course requirement for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas or counts as an elective for any diploma. This course is

aligned with postsecondary courses for dual credit.

## **PLTW PRINCIPLES OF BIOMEDICAL SCIENCES**

### **5218 (PRIN BIOMED)**

*PLTW Principles of the Biomedical Sciences* provides an introduction to this field through “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia and infectious diseases. Key biological concepts included in the curriculum are homeostasis, metabolism, inheritance of traits, feedback systems and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics and the relationship of structure to function are included where appropriate. Offered at Arsenal Technical High School (Math/Science Magnet).

- Recommended Grade Level: 9
- Recommended Prerequisites: Biology I or concurrent enrollment in Biology I is required
- Credits: 1 credit per semester, maximum of 2 credits
- Fulfills a Core 40 Science elective requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma. This course is aligned with postsecondary courses for dual credit.



# MATHEMATICS

## INTRODUCTION

Mathematics is a system of ideas to help students understand the world around them. Mathematics encompasses the use of money, statistics, time, distance, and a myriad of other concepts. Various courses are designed to help students explore and understand both abstract and concrete ideas to help them reason about the real world.

## COURSES OFFERED:

- Algebra Enrichment (2516)
- Algebra I (2520)
- Algebra II (2522)
- Calculus (2527)
- Calculus AB, Advanced Placement (2562)
- Finite Mathematics (2530)
- Geometry (2532)
- Mathematics, Higher Level, International Baccalaureate (2582)
- Mathematics, Standard Level, International Baccalaureate (2584)
- Mathematical Studies, Standard Level, International Baccalaureate (2586)
- Pre-Calculus/Trigonometry (2564)
- Probability and Statistics (2546)
- Statistics, Advanced Placement (2570)
- Advanced Math, College Credit (2544)

## ALGEBRA ENRICHMENT

### 2516 (ALG ENRICH)

*Algebra Enrichment* is a mathematics support course for Algebra I. The course provides students with additional time to build the foundations necessary for high school math courses, while also allowing students to have access to rigorous, grade-level appropriate courses. Whereas Algebra I contains exclusively grade-level content, Algebra Enrichment combines standards from high school courses with foundational standards from the middle grades.

- Credits: 2 credit course, 1 credit per semester
- Counts as a Mathematics course requirement for the General diploma only or as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.
- Algebra Enrichment is designed as a support course for Algebra I. As such, a student taking Algebra Enrichment must also be enrolled in Algebra I during the same academic year.

## ALGEBRA I

### 2520 (ALG I)

*Algebra I* extends the mathematics students learned in the

middle grades. This course additionally provides a foundation necessary for upper level math courses. Topics of study include operations with real numbers, solutions and graphing of equations and inequalities, operations with polynomials, quadratic equations and data analysis. Problem solving is an emphasis in this course as well.

- Credits: 2 credit course, 1 credit per semester
- Fulfills the Algebra I/Integrated Mathematics I requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.
- Students pursuing Core 40, Core 40 with Academic Honors or Core 40 with Technical Honors diplomas should receive credit for Algebra I by the end of Grade 9. Qualifies as a quantitative reasoning course.

## ALGEBRA II

### 2522 (ALG II)

*Algebra II* builds on work with linear, quadratic and exponential functions and allows for students to extend their skills with functions to include polynomial, rational and radical functions. Students work closely with the expressions that define the functions and continue to develop their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms.

- Recommended Prerequisite: Algebra I
- Credits: 2 credit course, 1 credit per semester
- Fulfills the Algebra II/Integrated Mathematics III requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas and counts as a Mathematics course requirement for the General diploma. Qualifies as a quantitative reasoning course.

## CALCULUS

### 2527 (CALC)

*Calculus* expands a student's knowledge of functions, graphs, limits, derivatives, and integrals. Additionally, students review algebra and functions, modeling, trigonometry, etc.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: Pre-calculus/Trigonometry
- Credits: 2 credit course, 1 credit per semester
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.



## **CALCULUS AB, ADVANCED PLACEMENT** 2562 (CALC AB AP)

*Calculus AB, Advanced Placement*, is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisite: Pre-Calculus/Trigonometry
- Credits: 2 credit course, 1 credit per semester
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **FINITE MATHEMATICS** 2530 (FINITE)

*Finite Mathematics* includes several mathematical topics. It is a course designed for students who will undertake higher level mathematics in college that might not include calculus. Topics include (1) counting techniques, (2) matrices, (3) recursion, (4) graph theory, (5) social choice, (6) linear programming and (7) game theory. Technology, such as computers and graphing calculators, is used frequently.

- Recommended Prerequisite: Algebra II or Integrated Mathematics III
- Credits: 2 credit course, 1 credit per semester
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **GEOMETRY** 2532 (GEOM)

*Geometry* formalizes and extends students' geometric experiences from the middle grades and from Algebra I. This course covers the following topics: Congruency and Similarity, Measurement, Analytic Geometry, Circles and Polyhedra. This course enables students to experience mathematics as a coherent, useful and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Prerequisite: Algebra I
- Credits: 2 credit course, 1 credit per semester
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas and counts as a Mathematics course requirement for the General diploma.

## **MATHEMATICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE** 2582 (MATH H IB)

*Mathematics Higher Level, International Baccalaureate*, includes seven core topics: algebra, functions and equations, circular functions and trigonometry, matrices, vectors, statistics and probability, and calculus. In addition, students also must complete one of the following four options: statistics and probability; sets, relations and groups; series and differential equations; or discrete mathematics. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Recommended Prerequisites: Students should have a strong understanding of arithmetic, algebra, geometry, trigonometry and statistics.
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## **MATHEMATICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE** 2584 (MATH S IB)

*Mathematics Standard Level, International Baccalaureate*, includes seven core topics: algebra, functions and equations, circular functions and trigonometry, matrices, vectors, statistics and probability, and calculus. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Recommended Prerequisites: Students should have a good understanding of arithmetic, algebra, geometry, trigonometry and statistics.
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## **MATHEMATICAL STUDIES STANDARD LEVEL, INTERNATIONAL BACCALAUREATE** 2586 (MA ST S IB)

*Mathematical Studies Standard Level, International Baccalaureate*, includes eight core topics: introduction to the graphic display calculator; number and algebra; sets, logic and probability; functions; geometry and trigonometry; statistics; introductory differential calculus; and financial mathematics. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Recommended Prerequisites: Students should have a good understanding of basic arithmetic, algebra, geometry, and trigonometry.
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

## **PRE-CALCULUS/TRIGONOMETRY**

### **2564 (PRECAL/TRIG)**

*Pre-Calculus/Trigonometry* is a two-credit course that combines the material from Trigonometry and Pre-Calculus into one course. The foundations of algebra and functions developed in previous courses are extended to new functions, including exponential and logarithmic functions, and to higher level sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. The course is designed to provide students with strong foundations for calculus and other higher level math courses.

- Recommended Prerequisite: Algebra II and Geometry or Integrated Mathematics III
- Credits: 2 credit course, 1 credit per semester
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **PROBABILITY AND STATISTICS**

### **2546 (PROB/STAT)**

*Probability and Statistics* includes the concepts and skills needed to apply statistical techniques in the decision-making process. Topics include (1) descriptive statistics, (2) probability and (3) statistical inference. Students plan and conduct experiments or surveys and analyze the resulting data. The use of graphing calculators and computer programs is encouraged.

- Recommended Prerequisite: Algebra II
- Credits: 1 credit course
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

*Statistics, Advanced Placement*, is a course that provides students with an introduction to the major concepts and tools for collecting, analyzing and drawing conclusions from data. This course is based on content established by the College Board.

- Recommended Grade Level: Grades 11 or 12
  - Recommended Prerequisite: Algebra II
  - Credits: 1 or 2 semester course, 1 credit per semester.
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas. Qualifies as a quantitative reasoning course.

## **ADVANCED MATHEMATICS, COLLEGE CREDIT**

### **2544 (ADV MTH CC)**

*Advanced Mathematics, College Credit*, is a title covering any advanced mathematics course offered for credit by an accredited postsecondary institution.

- Recommended Prerequisite: Algebra II and Geometry
- Credits: 1 credit per semester, may be offered for successive semesters
- Counts as a Mathematics course requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.
- This course may be used for multiple dual-credit college courses in mathematics. Qualifies as a quantitative reasoning course.

## **STATISTICS, ADVANCED PLACEMENT**

### **2570 (STAT AP)**



**MULTIDISCIPLINARY**

## INTRODUCTION

Each of the following courses features a unique curriculum encompassing concepts from more than one discipline.

### COURSES OFFERED:

- Basic Skills Development (0500)
- Career Information and Exploration (0522)
- College Entrance Preparation (0532)
- Humanities (0514)
- Junior Reserve Officer Training Corps (0516)

## BASIC SKILLS DEVELOPMENT

### 0500 (BAS SKLS)

*Basic Skills Development* provides students continuing opportunities to develop a variety of skills including: (1) reading, (2) writing, (3) listening, (4) speaking, (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem-solving skills, which are essential for high school course work achievement. Skills emphasized in this course are determined based on Indiana's standards, district general curriculum plans, and the student's Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of life situations.

- Recommended Grade Level: Any
- Recommended Prerequisites: None
- Credits: 1 credit per semester up to 8 credits
- Counts as an elective for all diplomas

## CAREER INFORMATION AND EXPLORATION

### 0522 (CARR INFO)

*Career Information and Exploration* provides students with opportunities to learn about themselves and about various traditional and nontraditional occupations and careers. Students also gain an awareness of the preparation or training needed for a range of employment paths. Students develop skills in: (1) employability, (2) understanding the economic process, and (3) career decision making and planning. Students will receive opportunities to observe and participate in several job situations through field trips, internships, mock interviews, and guest speakers. Resume development experience and career-related testing are also provided to students.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: None
- Credits: 1 or 2 semesters, 1 credit per semester
- Counts as an elective for all diplomas

## COLLEGE ENTRANCE PREPARATION

### 0532 (COL-ENT PREP)

*College Entrance Preparation* prepares students for the SAT, ACT, Accuplacer and/or Compass college readiness assessments. Based on their individual score reports, students will receive targeted instruction to strengthen foundations in the critical reading, writing, mathematics, and science sections of college admission and placement exams. As appropriate, the course will also encompass test-taking strategies to prepare students for success on a high-stakes assessment.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Algebra II (or concurrent enrollment in Algebra II)
- Credits: 1 semester, 1 credit
- Counts as an elective credit for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## HUMANITIES

### 0514 (HUMANITIES)

*Humanities* is the study of content drawn from history, philosophy, literature, languages and the arts. This course also includes an in-depth study of specific disciplines in related areas that could include: (1) linguistics; (2) archeology; (3) jurisprudence; (4) the history, theory, and criticism of the arts; (5) the history and philosophy of science; (6) ethics; (7) comparative religions; and (8) other aspects of the social sciences which relate to understanding life and the world. The emphasis of the course work is on developing an understanding of these disciplines and how they apply to the human environment.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester up to 2 credits
- This course may qualify for AHD credit if it meets the standards for specific language arts, social studies, or fine arts courses and is taught by teachers licensed in the specific subject areas.
- Counts as an elective for all diplomas

## **JUNIOR RESERVE OFFICER TRAINING CORPS** **0516 (JR ROTC)**

*Junior Reserve Officer Training Corps* is designed to develop: (1) citizenship and patriotism, (2) self-discipline, (3) physical fitness, (4) reliance and leadership, and (5) the skills used in decision making, communications, and problem-solving. Topics to be included in the course are: (1) military history, (2) ROTC in the military, (3) substance abuse, (4) map reading, (5) marksmanship and firearm safety, (6) military drill, (7) field activities, (8) reserve components, and (9) first aid and hygiene. Opportunities are provided to explore the qualities and traits of courage, self-sacrifice, and integrity. Offered at Arsenal Technical High School, Broad Ripple Magnet High School, George Washington High School, John Marshall High School, and Northwest Community High School

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester up to 8 credits. The nature of this course allows for successive semesters of study at an advanced level, provided that defined proficiencies and content standards are utilized.
- Counts as an elective for all diplomas



# SOCIAL STUDIES

## INTRODUCTION

Social Studies courses provide a platform for students to make sense of the social, economic and physical world. By understanding how individuals function within society at large and the manner in which societies interact with each other, students learn to grasp concepts such as conflict, change, adaptation, rights of individuals, and many other ideas that impact humanity.

## COURSES OFFERED:

- Citizenship and Civics (1508)
- Current Problems, Issues and Events (1512)
- Economics (1514)
- Economics, Higher Level, International Baccalaureate (1580)
- Economics, Standard Level, International Baccalaureate (1582)
- Geography and History of the World (1570)
- Geography, Higher Level, International Baccalaureate (1584)
- Geography, Standard Level, International Baccalaureate (1586)
- History, Higher Level, International Baccalaureate (1590)
- History, Standard Level, International Baccalaureate (1592)
- International Relations (1520)
- Law Education (1526)
- Political Science (1530)
- Psychology (1532)
- Psychology, Higher Level, International Baccalaureate (1604)
- Psychology, Standard Level, International Baccalaureate (1606)
- Sociology (1534)
- Theory of Knowledge, International Baccalaureate (0560)
- Topics in History (1538)
- Topics in Social Science (1550)
- United States Government (1540)
- Government and Politics: Comparative, Advanced Placement (1552)
- Government and Politics: United States, Advanced Placement (1560)
- United States History (1542)
- United States History, Advanced Placement (1562)
- World History and Civilization (1548)
- World History, Advanced Placement (1578)
- Urban Affairs (1544)
- Advanced Social Sciences, College Credit (1574)

## CITIZENSHIP AND CIVICS

### 1508 (CIVICS)

*Citizenship and Civics* provides an overview of roles and responsibilities designed to help students become independent thinkers and thoughtful citizens. This course deals with political trends and behavior relevant to the most pressing issues of the day. The course provides students with experiences to develop an understanding of citizenship within a democratic society. Study of the local government is a component of this course.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## CURRENT PROBLEMS, ISSUES, AND EVENTS

### 1512 (CPIE)

*Current Problems, Issues, and Events* gives students the opportunity to apply and investigate topics related to significant contemporary problems or issues. Problems or issues selected must have contemporary historical significance and must be studied from the viewpoint of the social science disciplines. Community service programs and internships within the community may be included.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit. Course may be repeated for credit if the content of the course changes.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## ECONOMICS

### 1514 (ECON)

*Economics* examines the allocation of resources and their uses for satisfying human needs and wants. The course analyzes economic reasoning and behaviors of consumers, producers, savers, investors, workers, voters, institutions, governments and societies in making decisions. Key elements of the course include the study of scarcity and economic reasoning, supply and demand, market structures, the role of government, national economic performance, the role of financial institutions, economic stabilization and trade.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit

- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas, fulfills a Social Studies requirement for the General diploma, or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

### **ECONOMICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE** 1580 (ECON H IB)

*Economics Higher Level, International Baccalaureate*, promotes disciplined economic reasoning skills and enables students to apply the tools of economic analysis to situations and data, explaining findings in a clear manner. Students gain an understanding of how societies and individuals organize themselves in the pursuit of economic objectives while also evaluating economic theories, concepts, situations and data. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas, fulfills a Social Studies requirement for the General diploma or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

### **ECONOMICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE** 1582 (ECON S IB)

*Economics Standard Level, International Baccalaureate*, promotes economic reasoning skills and enables students to analyze and explain data, situations and findings in a clear manner. Understanding how individuals and societies organize themselves in pursuit of economic objectives is essential, as is gaining an understanding of international perspectives that promote the diverse economic realities of individuals and societies. Students evaluate economic theories, situations, concepts and data. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas, fulfills a Social Studies requirement for the General diploma or counts as an elective for any diploma. Qualifies as a quantitative reasoning course.

### **GEOGRAPHY AND HISTORY OF THE WORLD** 1570 (GEO-HST WLD)

*Geography and History of the World* is designed to enable students to use geographical tools, skills and historical concepts to deepen their understanding of major global themes. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future and documenting and presenting findings orally or in writing. Students use the knowledge, tools and skills obtained from this course to analyze, evaluate and make predictions about major global developments.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

### **GEOGRAPHY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE** 1584 (GEO H IB)

*Geography Higher Level, International Baccalaureate*, is a high level study of the core themes of population and resources and development. Other optional themes for further study include topographic mapping, globalization, management of specific environments and contemporary issues. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies course requirement for the Core 40, Core 40 with Academic Honors, or Core 40 with Technical Honors diplomas, as a Science course requirement for the General and International Baccalaureate diplomas or as an elective for any diploma. Qualifies as a quantitative reasoning course.

### **GEOGRAPHY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE** 1586 (GEO S IB)

*Geography Standard Level, International Baccalaureate*, is a basic study of the core themes of population and resources and development. Optional themes for further study include topographic mapping, globalization and contemporary issues and the management of specific environments. Offered at Shortridge Magnet High School.



- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies course requirement for the Core 40, Core 40 with Academic Honors, or Core 40 with Technical Honors diplomas, as a Science course requirement of the General and International Baccalaureate diplomas or as an elective for any diploma.

## **HISTORY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE**

### **1590 (HIS H IB)**

*History Higher Level, International Baccalaureate*, promotes the understanding of the nature and diversity of history and its methods and interpretations. Students develop an international awareness and understanding and the ability to use and communicate historical knowledge. The course includes one prescribed subject from a choice of three and two 20th century world history topics from a choice of six. Regional options include Africa, the Americas, East and South East Asia and Oceania, Europe and South Asia and the Middle East. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills the U.S. History requirement only with regional concentration on the Americas for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma.

## **HISTORY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE**

### **1592 (HIS S IB)**

*History Standard Level, International Baccalaureate*, promotes the understanding of the nature and diversity of history and its methods and interpretations. Students develop an international awareness and understanding and the ability to use and communicate historical knowledge. The course includes one prescribed subject from a choice of three and two 20th century world history topics from a choice of six. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills the U.S. History requirement only with regional concentration on the Americas for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an elective for any diploma.

## **INTERNATIONAL RELATIONS**

### **1520 (INTL RELAT)**

*International Relations* provides a survey of the formal relations among sovereign states in the international system, emphasizing the operation of diplomacy. The course includes the procedures for settlement of disputes and various methods of international conflict resolution. It examines power, interdependence, global development and international organizations.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **LAW EDUCATION**

### **1526 (LAW ED)**

*Law Education* provides an understanding of the American legal system and its basis in the United States Constitution. The course is designed to promote an understanding of society and its system of laws by indicating how citizens can effectively function within the law. The course includes ways of dealing with interpersonal conflict to secure constructive change, along with the development of critical thinking and problem solving skills. Case studies, field trips, simulations and mock trials are used in this course whenever feasible.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: United States Government or teacher recommendation
- Credits: 1 semester course, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **POLITICAL SCIENCE**

### **1530 (POLI SCI)**

*Political Science* provides for a study of the processes and goals of politics, processes of government, methods by which decisions are made and the basis of decision making. The course may also include comparative studies of governmental systems in nations other than the United States.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: United States Government
- Credits: 1 semester, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## PSYCHOLOGY

### 1532 (PSYCH)

*Psychology* is the scientific study of mental processes and behavior. The course is divided into eight content areas. History & Scientific Method explores the history of psychology, the research methods used and their ethical considerations.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 1 or 2 semester course, 1 credit per semester.
- Counts as an elective for the General and Core 40 diplomas.

## PSYCHOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

### 1604 (PSY H IB)

Students in *Psychology Higher Level, International Baccalaureate*, study the biological, cognitive, learning and humanistic perspectives of psychology and must study two of the following: comparative psychology, cultural psychology, dysfunctional behavior, health psychology, lifespan psychology, psychodynamic psychology or social psychology. All aspects of research in the field, including ethics, qualitative and quantitative research, and experimental study, are included. Students are also required to design and implement three experimental studies. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies course requirement for the General diploma or as an elective for any diploma.

## PSYCHOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

### 1606 (PSY S IB)

*Psychology Standard Level, International Baccalaureate*, is divided into four required parts: biological, cognitive, learning and humanistic psychology. Students fulfill two options in the following areas: comparative psychology, cultural psychology, psychology of dysfunctional behavior, health psychology, lifespan psychology, psychodynamic psychology or social psychology. Students apply the research methodology of ethics and qualitative and quantitative research and design and implement three experimental studies. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies course requirement for the General diploma or as an elective for any diploma

## SOCIOLOGY

### 1534 (SOCIOLOGY)

*Sociology* allows students to study human social behavior from a group perspective. Students describe the development of sociology as a social science and identify methods of research. The influence of culture on group behavior is addressed through institutions such as the family, religion, education, economics, community organizations, government and political and social groups. The impact of social groups and institutions on group and individual behavior and the changing nature of society is examined.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## THEORY OF KNOWLEDGE, INTERNATIONAL BACCALAUREATE

### 0560 (TOK IB)

*Theory of Knowledge, International Baccalaureate*, is a unique interdisciplinary requirement intended to challenge students to reflect critically on diverse ways of knowing and areas of knowledge and to consider the role which knowledge plays in a global society. It encourages students to become aware of themselves as thinkers, to become aware of the complexity of knowledge and to recognize the need to act responsibly in an increasingly interconnected world. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## TOPICS IN HISTORY

### 1538 (TOP HIST)

*Topics In History* provides students the opportunity to study specific historical eras, events or concepts. Development of historical research skills using primary and secondary sources is emphasized. The course focuses on one or more topics or themes related to United States or world history. Examples of topics might include: (1) 20th-century conflict, (2) the American West, (3) the history of the United States Constitution and (4) democracy in history.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: United States History or World History and Civilization

- Credits: 1 semester, 1 credit. This course may be repeated if the material in the course is different from one semester to the next. Topics in History can address different topics in world history or U.S. history.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: United States Government
- Credits: 1 or 2 semester course, 1 credit per semester.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas, but no longer fulfills the U.S. Government requirement for any diploma.

## TOPICS IN SOCIAL SCIENCE

### 1550 (TOPICS SS)

*Topics in Social Science* provides students with an opportunity for in-depth study of a specific topic, theme or concept in one of the social science disciplines such as anthropology, archaeology, economics, geography, political science, psychology or sociology. Courses taught under this title should emphasize scientific methods of inquiry and help students develop effective research and thinking skills.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## UNITED STATES GOVERNMENT

### 1540 (US GOVT)

*United States Government* provides a framework for understanding the purposes, principles and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Using primary and secondary resources, students articulate, evaluate and defend positions on political issues. As a result, they learn to explain the role of individuals and groups in government, politics, and civic activities and discover the need for the civic and political engagement of citizens in the United States.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit
- Fulfills the Government requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

## GOVERNMENT AND POLITICS: COMPARATIVE, ADVANCED PLACEMENT

### 1552 (GOVT AP)

*Government and Politics: Comparative Advanced Placement*, is a course that provides students with the content established by the College Board.

## GOVERNMENT AND POLITICS: UNITED STATES, ADVANCED PLACEMENT

### 1560 (US GOVT AP)

*Government and Politics: United States, Advanced Placement*, is a course based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills the U.S. Government requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

## UNITED STATES HISTORY

### 1542 (US HIST)

*United States History* is a two semester course that builds upon concepts developed in previous studies of U.S. history and emphasizes national development from the late 19th century into the 21st century. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 2 semester course, 1 credit each semester
- Fulfills the U.S. History requirement of the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## UNITED STATES HISTORY, ADVANCED PLACEMENT

### 1562 (US HIST AP)

*United States History, Advanced Placement*, enables students to analyze and interpret primary sources and develop awareness of multiple interpretations of historical issues in secondary sources. Historical events and issues in U.S. history are examined from multiple perspectives. This course is based on content established by the College Board.

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 1 or 2 semester course, 1 credit per semester

- Fulfills the U.S. History requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

## **WORLD HISTORY AND CIVILIZATION**

1548 (WLD HST/CVL)

*World History and Civilization* emphasizes events and developments in the past that greatly affected large numbers of people across broad areas and that significantly influenced peoples and places in subsequent eras. Students examine examples of continuity and change, universality and particularity, and unity and diversity among various peoples and cultures, past and present. Students also practice historical thinking and research skills and learn to apply content knowledge to their thinking and inquiry skills and processes.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

## **WORLD HISTORY, ADVANCED PLACEMENT**

1576 (WLD HST AP)

*World History, Advanced Placement*, focuses on five overarching themes: Interaction between Humans and the Environment; Development and Interaction of Cultures; State-Building, Expansion, and Conflict; Creation, Expansion, and Interaction of Economic Systems; and Development and Transformation of Social Structures. This course is based on content established by the College Board.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an elective for any diploma.

## **URBAN AFFAIRS**

1541 (URBN AFAIR)

*Urban Affairs* examines the history, organization, processes and distinctive aspects of urban affairs. Students deal with the rise of modern cities and an analysis of modern urban problems. Data collection and research skills may be taught in conjunction with the study of this course.

- Recommended Grade Level: None
- Recommended Prerequisites: None
- Credits: 1 semester, 1 credit
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

## **ADVANCED SOCIAL SCIENCES, COLLEGE CREDIT**

1574 (ADV SS CC)

*Advanced Social Sciences, College Credit*, is a title covering (1) Any advanced social sciences course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school, or (2) Any other postsecondary social sciences course offered for dual credit.

- Recommended Grade Level: 12
- Recommended Prerequisites: United States History or World History and Civilization
- Credits: 1 credit per semester. May be offered for successive semesters and counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.
- Courses that use this title are most often those taught through the postsecondary campus, taught either online or in traditional settings or in a combination, and taught by higher education faculty.



# TRADE AND INDUSTRIAL EDUCATION

## INTRODUCTION

Trade and Industrial Education prepares students for specific careers through hands-on experience.

### COURSES OFFERED:

- Introduction to Architectural Drafting and Design 1/Architectural Drafting and Design I (5640)
- Architectural Drafting and Design II (5652)
- Introduction to Auto Collision Repair 1/Automotive Collision Repair I (5514)
- Automotive Collision Repair II (5544)
- Introduction to Auto Services Technology I/Automotive Services Technology I (5510)
- Automotive Services Technology II (5546)
- Construction Trades: HVAC I (5496)
- Construction Trades: HVAC II (5498)
- Cosmetology I (5802)
- Cosmetology II (5806)
- Diesel Service Technology I (5620)
- Diesel Service Technology II (5624)
- Fire and Rescue I (5820)
- Fire and Rescue II (5826)
- Introduction to Graphic Imaging Technology I (5572)
- Graphic Imaging Technology II (5572)
- 3D Computer Animation and Visualization (5530)
- Introduction to Welding Technology/Welding Technology I (5776)
- Welding Technology II (5778)

### INTRODUCTION TO ARCHITECTURAL DRAFTING AND DESIGN 1/ARCHITECTURAL DRAFTING AND DESIGN I 5640 (ARCH DDI)

*Architectural Drafting and Design I* gives students a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include: lettering, sketching, proper use of equipment, and geometric constructions with emphasis on orthographic (multi-view) drawings that are dimensioned and noted to American National Standards Institute standards. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Computers in Design and Production
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with

Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

### ARCHITECTURAL DRAFTING AND DESIGN II 5652 (ARCH DDII)

*Architectural Drafting and Design II* presents a history and survey of architecture and focuses on the creative design of buildings in a studio environment. This course will focus on advanced Computer-Aided Design (CAD) techniques, including fundamentals of three-dimensional modeling for design. Advanced CAD will enable the student to make the transition from 2D drafting to 3D modeling. Various architectural software packages and applications may be used. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Architectural Drafting and Design I
- Credits: 2-3 credits per semester, maximum of 2 semesters, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit. Qualifies as a quantitative reasoning course.

### INTRODUCTION TO AUTO COLLISION REPAIR I/AUTOMOTIVE COLLISION REPAIR I (formerly Automotive Collision Repair Technology I) 5514 (ACR TECH I)

*Automotive Collision Repair I* includes classroom and laboratory experiences concerned with all phases of the repair of damaged vehicle bodies and frames. These phases include metal straightening; smoothing areas by filing, grinding, or sanding; concealment of imperfections; painting; and replacement of body components including trim. Additional academic skills taught in this course include precision measurement and mathematical calibrations as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials. Offered at Arsenal Tech High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Introduction to Transportation
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **AUTOMOTIVE COLLISION REPAIR II** (formerly *Automotive Collision Repair Technology II*) **5544 (ACR TECH II)**

*Automotive Collision Repair II* introduces concepts in auto paint considerations with an emphasis on the handling of materials and equipment in modern automotive technologies. Additional academic skills taught in this course include precision measurement and mathematical calibrations as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Automotive Collision Repair Technology I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diploma. This course is aligned with postsecondary courses for Dual Credit.

## **INTRODUCTION TO AUTO SERVICES TECHNOLOGY I/AUTOMOTIVE SERVICES TECHNOLOGY I** **5510 (AUTO TECH I)**

*Automotive Services Technology I* is a one-year course that encompasses the subtopics of the National Automotive Technicians Education Foundation/Automotive Service Excellence identified areas of Steering and Suspension and Braking Systems. This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit requirements of this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Offered at Arsenal Tech High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Introduction to Transportation
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **AUTOMOTIVE SERVICES TECHNOLOGY II** **5546 (AUTO TECH II)**

*Automotive Services Technology II* is a one-year course that encompasses the subtopics of the National Automotive Technicians Education Foundation (NATEF)/Automotive Service Excellence identified areas of Electrical Systems and Engine Performance. This one-year offering must meet the NATEF program certifications for the two primary areas offered in this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Automotive Services Technology I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as a directed elective or elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **CONSTRUCTION TRADES: HVAC I** (formerly *Construction Technology: HVAC I*) **5496 (CONST HVAC I)**

*Construction Trades: HVAC I* includes classroom and laboratory experiences focused on heat generation, ventilation, and cooling/refrigeration systems. This course introduces scientific and mathematical principles applicable in the installation, operation, and maintenance of HVAC systems. Types of units, parts, basic controls, functions, and applications will be covered. Additional topics include tool and meter use, temperature measurement, heat flow, the combustion process, and pipe installation practices. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Introduction to Construction
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **CONSTRUCTION TRADES: HVAC II** (formerly *Construction Technology: HVAC II*) 5498 (CONST HVAC II)

*Construction Trades: HVAC II* builds on concepts introduced in HVAC I. This course will emphasize reading blueprints and other technical documents, as well as troubleshooting common mechanical and electrical problems encountered when servicing HVAC systems. Students will hone their science and mathematical skills in HVAC system installation, maintenance, or repair projects. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Construction Technology: HVAC I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit. Qualifies as a quantitative reasoning course.

## **COSMETOLOGY I** 5802 (CSMTLGY I)

*Cosmetology I* offers an introduction to cosmetology with an emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, bacteriology, and sanitation. In the second semester greater emphasis is placed on the application and development of these skills. The State of Indiana requires a total of 1500 hours of instruction for licensure. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11
- Recommended Prerequisite: None
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **COSMETOLOGY II** 5806 (CSMTLGY II)

*Cosmetology II* will cover the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology, professionalism, and salon management in relation to cosmetology. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12

- Recommended Prerequisites: Cosmetology I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **DIESEL SERVICE TECHNOLOGY I** 5620 (DIESL TECH I)

*Diesel Service Technology I* introduces students to engine operating principles and theories as well as diesel fuel systems and hands-on training related to modern diesel engines. It includes classroom and laboratory experiences focused on all phases of repair work on diesel engines used to power buses, ships, trucks, railroad trains, electrical generators, construction machinery, and similar equipment. Instruction and practice is provided in the diagnostics and repair of engines. Students will demonstrate performance of these tasks as defined by National Automotive Technicians Education Foundation/Automotive Service Excellence standards. Use of technical manuals, hand and power tools, and testing and diagnostic equipment are also studied in this course. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: Intro to Transportation
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **DIESEL SERVICE TECHNOLOGY II** 5624 (DIESL TECH II)

*Diesel Service Technology II* includes classroom and laboratory experiences concerned with all phases of repair work on diesel electrical systems used to power buses, ships, trucks, railroad trains, electrical generators, construction machinery, and similar equipment. Utilization of analog and digital meters, wiring diagrams, and other diagnostic tools will be stressed in a hands-on course that introduces the student to automotive electrical theory, batteries, charging systems, starting systems, wiring repairs, lighting systems and accessories. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Diesel Service Technology I
- Credits: 2-3 credits per semester, maximum of 6 credits



- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **FIRE AND RESCUE I**

### **5820 (FIRE RSCU I)**

*Fire and Rescue I* students learn that every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory; (2) Firefighter I; (3) Firefighter II; (4) Hazardous Materials Awareness; and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding to the curriculum (6) First Responder; and (7) Emergency Medical Technician-Basic. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **FIRE AND RESCUE II**

### **5826 (FIRE RSCU II)**

*Fire and Rescue II* students understand that every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency services workers help protect the public against these dangers by rapidly responding to a variety of emergencies. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory; (2) Firefighter I; (3) Firefighter II; (4) Hazardous Materials Awareness; and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding to the curriculum (6) First Responder; and (7) Emergency Medical Technician-Basic. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Fire and Rescue I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **INTRODUCTION TO GRAPHIC IMAGING TECHNOLOGY I**

### **5572 (GRAPH TECH)**

*Introduction to Graphic Imaging Technology I* will include organized learning experiences that focus on theory and laboratory activities in pre-press, press, and finishing operations. Emphasis will be placed on elements of design and layout leading to computerized electronic image generation, plate preparation, pressroom operations, and finishing techniques. Instructional activities will enhance students' language arts skills through the use of proofreading, spelling, and punctuation exercises. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Levels: 11 or 12
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **GRAPHIC IMAGING TECHNOLOGY II**

### **5572 (GRAPH TECH)**

*Graphic Imaging Technology II* will include organized learning experiences that focus on theory and laboratory activities in pre-press, press, and finishing operations. Emphasis will be placed on elements of design and layout leading to computerized electronic image generation, plate preparation, pressroom operations, and finishing techniques. Instructional activities will enhance students' language arts skills through the use of proofreading, spelling, and punctuation exercises. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Levels: 11 or 12
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

## **3D COMPUTER ANIMATION AND VISUALIZATION**

### **5530 (3D CMP AN)**

*3D Computer Animation and Visualization* prepares students to use computer applications and related visual and sound imaging techniques to create and manipulate images and information. This course includes instruction in three-dimensional solid model creation, sketching and storyboarding, time and motion study, color and lighting studies, and camera positioning. Using current computer animation software that reflects industry stan-

dards students should produce projects for commercial applications in one or more of the following areas: engineering, architectural, or industrial design; marketing; video production; internet design; electronic gaming; and, education and training. Offered at Broad Ripple Magnet High School.

- Recommended Grade Levels: 11 or 12
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits
- The nature of this course allows for a second year of instruction provided that content and standards address higher levels of knowledge. Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas.

Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 12
- Recommended Prerequisites: Welding Technology I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **INTRODUCTION TO WELDING TECHNOLOGY/WELDING TECHNOLOGY I** **5776 (WELD TECH I)**

*Welding Technology I* includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and Shielded Metal Arc welding. This course is designed for individuals who intend to make a career as a welder, technician, designer, researcher or engineer, or a career in sales. Occupational Safety and Health Administration (OSHA) standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success. Offered at Arsenal Technical High School (Career Technology Center).

- Recommended Grade Level: 11 or 12
- Recommended Prerequisites: None
- Credits: 2-3 credits per semester, maximum of 6 credits.
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas. This course is aligned with postsecondary courses for Dual Credit.

## **WELDING TECHNOLOGY II** **5778 (WELD TECH II)**

*Welding Technology II* builds on the Gas Metal Arc welding, Flux Cored Arc Welding, Gas Tungsten Arc welding, Plasma Cutting, and Carbon Arc skills covered in Welding Technology I. Occupational Safety and Health Administration (OSHA) standards and guidelines endorsed by the American Welding Society (AWS) are used.



# WORK-BASED LEARNING

## INTRODUCTION

The fundamental purpose of work-based learning is to provide students with opportunities to learn in real-world environments. These experiences must be related to the students' academic and career cluster/pathway goals.

## WORK-BASED LEARNING

*Varies (WBL)*

*Work-Based Learning* courses connect students with real-world work settings to apply the concepts, skills, and dispositions learned in previous career pathway coursework. A training plan is developed by the student, teacher, and workplace mentor to guide the student's experiences and assist in evaluating achievement and performance. Students are monitored by a Career and Technical Education teacher. The following Work-Based Learning courses are offered at Arsenal Tech High School (Star Academy):

5207 Work-Based Learning, Health Sciences

5892 Work-Based Learning, Trade and Industry

5260 Work-Based Learning, Business and Marketing

5974 Work-Based Learning, Multiple Pathways

- Recommended Grade Level: 12
- Required Prerequisites: Preparing for College and Careers; 4 credits of introductory and advanced courses related to a student's pathway
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as an elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.



# WORLD LANGUAGES

## INTRODUCTION

The essence of human interaction is language and communication. The rapid development of telecommunications will make the ability to communicate in more than one language a necessity for all future employees. Therefore, it is important to prepare our students for this multilingual environment by ensuring they are able to function using world language. During the learning process, they will derive the benefits of developing insight into their own language and culture as they learn to communicate with others.

## COURSES OFFERED:

- American Sign Language I (2156)
- Chinese I (2000)
- Chinese II (2002)
- Chinese III (2004)
- Chinese IV (2006)
- Classical Language, Higher Level, International Baccalaureate (2300)
- English as a New Language (2188)
- French I (2020)
- French II (2022)
- French III (2024)
- French IV (2026)
- German I (2040)
- German II (2042)
- German III (2044)
- German IV (2046)
- Japanese I (2060)
- Japanese II (2062)
- Japanese III (2064)
- Japanese IV (2066)
- Latin I (2080)
- Latin II (2082)
- Latin III (2084)
- Language for Heritage Speakers I (2190)
- Language for Heritage Speakers II (2192)
- Language for Heritage Speakers III (2194)
- Russian I (2100)
- Russian II (2102)
- Russian III (2104)
- Russian IV (2106)
- Spanish I (2120)
- Spanish II (2122)
- Spanish III (2124)
- Spanish IV (2126)
- Spanish Language and Culture, Advanced Placement (2132)
- Advanced World Language, College Credit (2152)
- World Language B, Higher Level,

International Baccalaureate (2306)

- World Language B, Standard Level, International Baccalaureate (2308)

## AMERICAN SIGN LANGUAGE I

### 2156 (ASL I)

*American Sign Language I* is a course that introduces students to American Sign Language (ASL) and the deaf community. The course focuses on frequently used signs through a functional-notional approach and discusses cultural features of the deaf community. Through this course, students are given the opportunity to develop visual acuity; follow brief verbal instructions; understand short statements, questions, and dialogues; develop short descriptions with guidance; begin to understand the current GLOSSING system used to write ASL; and examine other methods developed to write ASL, including Sign Writing.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## CHINESE I

### 2000 (CHI I)

*Chinese I* introduces students to effective strategies for beginning Chinese language learning and to various aspects of Chinese-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write simple sentences using characters. Additionally, students will examine the practices, products and perspectives of Chinese-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## CHINESE II

### 2002 (CHI II)

*Chinese II* builds upon effective strategies for Chinese language learning by encouraging the use of language

and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. Additionally, students will describe the practices, products and perspectives of Chinese-speaking culture; and report on basic family and social practices of Chinese culture. This course further emphasizes making connections across content areas and the application of understanding Chinese language and culture outside of the classroom.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Chinese I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **CHINESE III** **2004 (CHI III)**

*Chinese III* builds upon effective strategies for Chinese language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write simple paragraphs using characters. Additionally, students will continue to develop understanding of Chinese-speaking culture discussion of significant events in the culture; and investigation of elements that shape cultural identity.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Chinese I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **CHINESE IV** **2006 (CHI IV)**

*Chinese IV* students will continue to develop understanding of Chinese-speaking culture through explaining factors that influence the practices, products, and perspectives of the culture; reflecting on cultural practices; and comparing systems of Chinese culture and the student's own culture. This course further emphasizes making connections across content areas through the design of

activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Chinese language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Chinese speakers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Chinese I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **CLASSICAL LANGUAGE HIGHER LEVEL, INTERNATIONAL BACCALAUREATE** **2300 (CL H IB)**

*Classical Language Higher Level, International Baccalaureate*, is a language course for the study of Latin or Classical Greek and introduces students to the language, literature and culture of ancient Greece or Rome. The course promotes the acquisition of language skills as the foundation of the course and provides students the opportunity to study surviving texts in the original language, as well as additional texts in translation. Additionally, the course develops in students an appreciation of the cultural achievements of ancient Greek or Roman society. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a World Language course requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an elective for any diploma.

### **ENGLISH AS A NEW LANGUAGE** **2188 (ENL)**

*English as a New Language* is the study of language, literature, composition and oral communication for Limited English Proficient (LEP) students so that they improve their proficiency in listening, speaking, reading, writing and comprehension of Standard English. Students study English vocabulary used in fictional and content-area texts, speak and write English so that they can function within the regular school setting and an English-speaking society, and deliver oral presentations appropriate to their respective levels of English proficiency.

- Recommended Grade Level: The intent of the ENL course is to move students as successfully, smoothly and rapidly as possible into the Core 40 English courses offered in grades 9-12.
- Recommended Prerequisites: English proficiency placement test results
- Credits: 2 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at advanced levels (up to a maximum of four credits).
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- World Language credit: If ENL course work addresses Indiana's Academic Standards for World Languages and is taken concurrently with another English Language Arts course, up to four (4) credits accrued may count as World Language credits for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

### **FRENCH I** 2020 (FREN I)

*French I* introduces students to effective strategies for beginning French language learning and to various aspects of French-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of French-speaking culture; recognize basic routine practices of the culture; and recognize and use situation-appropriate non-verbal communication.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **FRENCH II** 2022 (FREN II)

*French II* builds upon effective strategies for French language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to

make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages using appropriate formats. Students will present prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: French I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **FRENCH III** 2024 (FREN III)

*French III* builds upon effective strategies for French language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Additionally, students will continue to develop an understanding of French-speaking culture through discussion of significant events in the culture; and investigation of elements that shape cultural identity.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: French I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

### **FRENCH IV** 2026 (FREN IV)

*French IV* provides continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. The use and influence of the French language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native French speakers.



- Recommended Grade Level: 10-12
- Recommended Prerequisites: French I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **GERMAN I**

### **2040 (GER I)**

*German I* introduces students to effective strategies for beginning German language learning and to various aspects of German-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of German-speaking culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **GERMAN II**

### **2042 (GER II)**

*German II* builds upon effective strategies for German language learning by encouraging the use of language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages using appropriate formats. Students will present prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of German-speaking culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: German I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **GERMAN III**

### **2044 (GER III)**

*German III* builds upon effective strategies for German language learning by facilitating the use of language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Students will present material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of German-speaking culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: German I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **GERMAN IV**

### **2046 (GER IV)**

*German IV* students will continue to develop understanding of German-speaking culture through explaining factors that influence the practices, products, and perspectives of the culture; reflecting on cultural practices and comparing systems of German culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the German language and culture with concepts and skills from other content areas. The use and influence of the German language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native German speakers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: German I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **JAPANESE I**

### **2060 (JAP I)**

*Japanese I* introduces students to effective strategies for beginning Japanese language learning and to various aspects of Japanese-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to

basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write simple sentences using characters. Additionally, students will examine the practices, products and perspectives of Japanese-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **JAPANESE II**

### **2062 (JAP II)**

*Japanese II* builds upon effective strategies for Japanese language learning by encouraging the use of language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and recognizing words and characters through stroke order and stroke count. Additionally, students will describe the practices, products and perspectives of Japanese-speaking culture; report on basic family and social practices of the culture; and describe contributions from Japanese culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Japanese I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **JAPANESE III**

### **2064 (JAP III)**

*Japanese III* builds upon effective strategies for Japanese language learning by facilitating the use of the language and cultural understanding for self-directed purposes. Students will present material on a variety of topics as well as reading aloud to practice appropriate pronunciation. Additionally, students will continue to develop understanding of Japanese-speaking culture through

discussion of significant events in the culture; and investigation of elements that shape cultural identity.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Japanese I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **JAPANESE IV**

### **2066 (JAP IV)**

*Japanese IV* students will continue to develop understanding of Japanese-speaking culture through explaining factors that influence the products and perspectives of the culture and reflecting on cultural practices. This course further emphasizes making connections across content areas through the design of activities and materials that integrate language and culture with concepts and skills from other content areas. The use and influence of the Japanese language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Japanese speakers.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Japanese I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LATIN I**

### **2080 (LAT I)**

*Latin I* introduces students to effective strategies for beginning Latin language learning, and to various aspects of classical Roman culture. This course emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of classical Roman culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LATIN II**

### **2082 (LAT II)**

*Latin II* builds upon effective strategies for Latin language learning by encouraging the use of the language and cultural understanding for self-directed purposes. Students will present prepared material on a variety of topics as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of classical Roman culture; report on basic family and social practices; and describe contributions from the culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Latin I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LATIN III**

### **2084 (LAT III)**

*Latin III* builds upon effective strategies for Latin language learning by facilitating the use of language and cultural understanding for self-directed purposes. Students will present material on a variety of topics as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of classical Roman culture through discussion of significant events in the culture; and investigation of elements that shape cultural identity.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Latin I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LANGUAGE FOR HERITAGE SPEAKERS I**

### **2190 (LHS I)**

*Language for Heritage Speakers I* is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language as well as to the importance of biculturalism and bilingualism in the United States.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None or placement as determined at local level
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LANGUAGE FOR HERITAGE SPEAKERS II**

### **2192 (LHS II)**

*Language for Heritage Speakers II* builds upon Language for Heritage Speakers I and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language as well as to the importance of biculturalism and bilingualism in the United States.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Language for Heritage Language Learners I or placement as determined at local level
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **LANGUAGE FOR HERITAGE SPEAKERS III**

### **2194 (LHS III)**

*Language for Heritage Speakers III* builds upon Language for Heritage Speakers II, and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language as well as to the importance of biculturalism and bilingualism in the United States.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Language for Heritage Language Learners II or placement as determined at local level
- Credits: 2-credit course

- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **RUSSIAN I**

### **2100 (RUS I)**

*Russian I* introduces students to effective strategies for beginning Russian language learning and to various aspects of Russian-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief, guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of Russian-speaking culture; recognize basic routine practices of the culture; and recognize and use situation-appropriate non-verbal communication.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **RUSSIAN II**

### **2102 (RUS II)**

*Russian II* builds upon effective strategies for Russian language learning by encouraging the use of language and cultural understanding for self-directed purposes. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will present prepared material on a variety of topics as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Russian-speaking culture; report on basic family and social practices of the culture; and describe contributions from Russian culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Russian I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **RUSSIAN III**

### **2104 (RUS III)**

*Russian III* builds upon effective strategies for Russian language learning by facilitating the use of language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Students will present material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Russian I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **RUSSIAN IV**

### **2106 (RUS IV)**

*Russian IV* students will continue to develop understanding of Russian-speaking culture through explaining factors that influence the practices, products, and perspectives of the culture; reflecting on cultural practices; and comparing systems of Russian culture and the student's own culture.

- Recommended Grade Level: 10-12
- Recommended Prerequisites: Russian I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **SPANISH I**

### **2120 (SPAN I)**

*Spanish I* introduces students to effective strategies for beginning Spanish language learning, and to various aspects of Spanish-speaking culture. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Spanish-speaking culture; recognize basic routine practices of the culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: None

- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **SPANISH II** 2122 (SPAN II)

*Spanish II* builds upon effective strategies for Spanish language learning by encouraging the use of language and cultural understanding for self-directed purposes. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will present prepared material on a variety of topics as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Spanish-speaking culture; report on basic family and social practices of the culture; and describe contributions from Spanish culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Spanish I
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **SPANISH III** 2124 (SPAN III)

Spanish III builds upon effective strategies for Spanish language learning by facilitating the use of language and cultural understanding for self-directed purposes. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will present material on a variety of topics as well as reading aloud to practice appropriate pronunciation and intonation.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Spanish I and II
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **SPANISH IV** 2126 (SPAN IV)

*Spanish IV* expands the skill sets that apply to the exchange of written and oral information through em-

phasis on speaking and listening strategies that facilitate communication. Additionally, students will continue to develop understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the culture; reflecting on cultural practices; and comparing systems of Spanish culture and the student's own culture.

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Spanish I, II and III
- Credits: 2-credit course
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **SPANISH LANGUAGE AND CULTURE, ADVANCED PLACEMENT** 2132 (SP LANG AP)

*Spanish Language and Culture, Advanced Placement* emphasizes the use of the Spanish language for active communication. The AP Spanish Language course develops advanced listening comprehension, reading without the use of a dictionary, expanded conversational skills, fluent and accurate written expression, and strong command of vocabulary and structure of the Spanish language. The AP Spanish Language course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines rather than being limited to any specific body of subject matter. This course is based on content established by the College Board.

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Spanish I, II and III
- Credits: 2-credit course, 1 credit per semester
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

## **ADVANCED WORLD LANGUAGE, COLLEGE CREDIT** 2152 (WLD LANG CC)

*Advanced World Language, College Credit* is a course covering (1) Any advanced course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school, or (2) Any other postsecondary World Language course offered for dual credit

- Recommended Grade Level: 11-12
- Recommended Prerequisites: Levels I, II and III of the language
- Credits: 1 credit per semester. May be offered for successive semesters

- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as an elective for any diploma

International Baccalaureate diplomas or as an elective for any diploma.

## **WORLD LANGUAGE B HIGHER LEVEL, INTERNATIONAL BACCALAUREATE**

**2306 (WLB H IB)**

*World Language B Higher Level, International Baccalaureate*, is for students with two to five years of previous experience in learning the target language. It prepares students to be successful on the International Baccalaureate exam for the target language. This course enables students to use the target language appropriately in a range of situations and contexts and for a variety of purposes and also focuses on language acquisition and development in the four primary language skills of listening, speaking, reading and writing. Language skills are developed through the study and use of a range of written and spoken material, which extends from everyday oral exchanges to literary texts related to the target cultures. The course is further designed to promote an awareness of, and sensitivity to, the cultures related to the language studied. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a World Language course requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an elective for any diploma.

## **WORLD LANGUAGE B STANDARD LEVEL, INTERNATIONAL BACCALAUREATE**

**2308 (WL AIS IB)**

*World Language B Standard Level, International Baccalaureate*, is for students with little or no previous experience in learning the target language. This course provides an opportunity for students to further their linguistic skills by taking up a second world language or for students to learn a world language for the first time. The course concentrates on the acquisition of language necessary for practical communication in a variety of everyday situations and also focuses on development of the four primary language skills of listening, speaking, reading and writing. Offered at Shortridge Magnet High School.

- Recommended Grade Level: 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a World Language course requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and





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