2019 – 2020
PROGRAM OF STUDIES

NORTHWEST LOCAL SCHOOL DISTRICT

COLERAIN HIGH SCHOOL & NORTHWEST HIGH SCHOOL
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Foreword

Northwest Local Schools have two public high schools, dedicated to the pursuit of academic excellence in a culturally diverse community. Academic ability, a respect for learning, and a will to achieve are tools for both students and faculty.

Analytical and creative thinking skills equip students to draw upon the knowledge of the past, weigh the questions of the present, and to envision the possibilities of the future.

Involvement in extra-curricular and co-curricular activities provides additional opportunities for pursuing academic, social, and athletic goals. We believe that academic achievement is intrinsically valuable in a democratic atmosphere of mutual respect, social equity, and personal responsibility.

Selecting courses will be one of the most important tasks you will perform during your school career. The coursework you choose to take in high school prepares you for further educational opportunities and life.

Select courses for yourself that are going to provide an appropriate challenge. Courses that are too easy or too difficult will not give you the preparation you need for success. Select courses that fit your career plans and if you are uncertain as to your future, select courses that allow you numerous options beyond high school.

Finally, make a tentative plan for the four years of high school so that you will know the sequence of course levels you will be required to take.

Mission

The Northwest Local School District will create a responsive learning community where all students are valued, challenged, and guided along a pathway to success.

Core Beliefs:

- We believe that it is our responsibility to respond to each student to ensure learning and growth.
- We believe that students and staff thrive in an environment that is trusting, safe, and provides hope on a daily basis.
- We believe that collaborative relationships and high expectations are paramount to our success.
- We believe that community engagement is essential for the success of our school district.
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In order to be fiscally responsible, course offerings at each high school will be dependent upon student requests during the scheduling process. While in the Program of Studies, some courses listed may not be able to be offered if the number of student requests is below district class size minimums.
DEFINITION OF TERMS

1. GRADES AND CREDITS
   ● All students must have 20 credits to be eligible to graduate. Please see page 6 for more details.

   a. Credits:
      ● Credits are based on Carnegie units of credit. In most cases, a course that lasts one full school year will receive one (1) unit of credit. Courses that last for a semester will merit one-half (.5) unit of credit. The exceptions to this are:
         ○ Physical Education – The state of Ohio has mandated that one semester of Physical Education shall merit one-quarter (.25) unit of credit; therefore two semesters of Physical Education will be required to meet the graduation requirement of .50 credit in Physical Education

   b. Grading:
      . Grading Scale:
         For the 2019-20 school year, all high school students will follow the grading scale below.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>SCALE</th>
<th>GENERAL/ADV.</th>
<th>HONORS</th>
<th>AP/CCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100% - 90%</td>
<td>4.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>B</td>
<td>89% - 80%</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
</tr>
<tr>
<td>C</td>
<td>79% - 70%</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>D</td>
<td>69% - 60%</td>
<td>1.0</td>
<td>1.0*</td>
<td>1.0*</td>
</tr>
<tr>
<td>F</td>
<td>59% - 0%</td>
<td>0.0</td>
<td>0.0*</td>
<td>0.0*</td>
</tr>
</tbody>
</table>

Weighted Grades
   All Honors and Advanced Placement (AP) Courses:
      Add 0.5 (C or better) on the grade point average.
   *College Credit Plus courses must follow the grade scale of the university awarding credit.
   *For Honors and AP courses, no weighted values are awarded for the grades below a C.
Graduation Awards Defined:

<table>
<thead>
<tr>
<th>Graduating Classes of 2020, 2021, 2022</th>
<th>Graduating Classes of 2023 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summa Cum Laude</strong></td>
<td><strong>Summa Cum Laude</strong></td>
</tr>
<tr>
<td>Minimum of 20 credits during high school</td>
<td>Minimum of 20 credits during high school</td>
</tr>
<tr>
<td>Minimum weighted GPA of 4.40 or higher</td>
<td>Minimum weighted GPA of 4.50 or higher</td>
</tr>
<tr>
<td>No final semester grade below a C</td>
<td>No final semester grade below a C</td>
</tr>
<tr>
<td><strong>Magna Cum Laude</strong></td>
<td><strong>Magna Cum Laude</strong></td>
</tr>
<tr>
<td>Minimum of 20 credits during high school</td>
<td>Minimum of 20 credits during high school</td>
</tr>
<tr>
<td>Minimum weighted GPA of 4.16 or higher</td>
<td>Minimum weighted GPA of 4.25 or higher</td>
</tr>
<tr>
<td><strong>Cum Laude</strong></td>
<td><strong>Cum Laude</strong></td>
</tr>
<tr>
<td>Minimum of 20 credits during high school</td>
<td>Minimum of 20 credits during high school</td>
</tr>
<tr>
<td>Minimum weighted GPA of 3.57 or higher</td>
<td>Minimum weighted GPA of 3.75 or higher</td>
</tr>
</tbody>
</table>

Computation of Grade Point Average:

- Each percent grade is changed to the appropriate letter grade.
- Each letter grade is assigned a value (either regular or weighted).
- Each value is multiplied by the amount of credit the class is worth, resulting in a number of points.
- The total number of points is divided by the total number of credits attempted, arriving at the grade point average.
- Cumulative grade point averages are calculated at the end of each semester.
- Graduation academic awards are calculated in January of the student’s graduation year.

Grading System Procedures:

- Quarter and final grades are reported on a numerical basis as percentages.
- A passing numerical average of a minimum of 60% is required to pass and receive credit for a course.
- No grade of lower than 40% can be reported on quarter grades, however, progress reports and midterms can show averages lower than 40%.
- Quarter grades will comprise 90% of a student’s overall grade and the semester exam will comprise the additional 10% of a student’s overall semester grade. All students will receive credit by the semester for semester and year long courses.
- An incomplete (I) may be temporarily assigned to a student who, for good reason, has not completed the required work for a given grading period. After a reasonable length of time, and upon the satisfactory completion of the work, the incomplete (I) will be changed to the numerical grade earned. If the student does not complete the work successfully, the incomplete (I) becomes the numeric grade earned.
  - Parents are notified when there is a likelihood that a final incomplete (I) will be given.
  - Final determination of incomplete status is at the determination of the building principal. This information is included in the student’s permanent record. No makeup privileges are allowed; the student loses semester credit in that course.
c. **Declared Courses:**

Students are permitted to DECLARE one credit per year as “no count” courses for the purposes of class rank computation. Grades for these courses will be issued, credits granted, and the record of the course will still appear on the official transcript.

The purpose of this plan is to permit students to take courses offered at a non-weighted level. Taking the non-weighted course would originally have been discouraged due to the impact on weighted GPA. Most elective courses are offered without weighted grading.

We encourage students to take elective courses in their fields of interest, and this provision allows this to occur without compromising a student’s class rank and GPA.

Declared courses will have a special code and the computer printout will not include the course in class rank computations. The course will appear on the report card and the official transcript of credits sent to colleges, employers, military services, etc…

Students do not have to declare any courses, but it is an option for all students that meet the criteria. The course(s) must be declared for both semesters of the 2019-20 school year by **Friday, September 6th, 2019 at 2 p.m.**

The following rules apply in determining the courses to be declared:

1. A student must schedule of seven courses each semester in order to declare one credit per year. If a student has late arrival, early dismissal, taking a Pass-Fail course or a study hall, he/she cannot declare a course.
2. Students may not accumulate unused "declared" courses from year to year.
3. No changes of declarations are permitted.
4. The declared course will carry a grade and appropriate credit. Declared courses will not be used in computing class rank or honor roll.
5. Students may **not** declare any Honors, Advanced Placement, or College Credit Plus courses.
6. Students in grades nine through twelve are eligible to make such declarations.
7. Any courses required for graduation may **not** be declared.
8. In addition, Foreign Language courses may **not** be declared.

d. **Pass – Fail Courses:**

- Courses offered as pass/fail will be issued a final grade of “S” for satisfactory if the student meets or exceeds the criteria established or “U” for unsatisfactory if the student does not meet the minimum stated criteria for the course.
2. **GRADUATION REQUIREMENTS:** (BOE policy 5460)
The Board desires that its standards for graduation meet or exceed the minimum standards of the Ohio Department of Education as well as State law and, further, that our high schools compares favorably with other high schools in the state that are recognized for excellence.

<table>
<thead>
<tr>
<th>SUBJECT AREA</th>
<th>NORTHWEST LSD REQUIREMENTS FOR GRADUATION</th>
<th>RECOMMENDED FOR COLLEGE ENTRANCE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>(including one unit of Algebra II or its equivalent**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>(which must include American History, American Government**, and World History or its equivalent)</td>
<td>(which must include American History, American Government**, and World History or its equivalent)</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>(which must include a unit of a biological science, a unit of a physical science, and one additional science credit)</td>
<td>(including 2 advanced sciences)</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>½ credit (1 semester)</td>
<td>½ credit</td>
</tr>
<tr>
<td>Physical Education****</td>
<td>½ credit (2 semesters)</td>
<td>½ credit</td>
</tr>
<tr>
<td>Fine Arts*****</td>
<td>1 credit</td>
<td>1 credit</td>
</tr>
<tr>
<td>Electives</td>
<td>4 credits (including 3 credits of the same foreign language or 2 credits each of 2 languages)</td>
<td>4 credits</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20 credits</td>
<td>22 credits</td>
</tr>
</tbody>
</table>

*Students should check with the colleges and universities they are considering for specific entrance requirements.

**Students entering ninth grade for the first time on or after July 1, 2015 who are pursuing a career-technical instructional track may complete a career-based pathway math course as an alternative to Algebra II.

***The state requirements for economics and financial literacy will be fulfilled in the American Government course.

****A student who, during high school, has participated in interscholastic athletics, marching band or cheerleading for at least two full seasons is not required to complete any physical education courses as a condition to graduate. However, the student is required to complete one-half unit, consisting of at least 60 hours of instruction, in another course of study.

*****Student following a career-technical pathway, business, career-technical education, family and consumer sciences, technology, agricultural education or additional English language arts, math, science or social studies courses not otherwise required under the statutory graduation requirements;

For additional information on Ohio’s graduation requirements, including testing information, visit [http://education.ohio.gov/Topics/Ohio-s-Graduation-Requirements](http://education.ohio.gov/Topics/Ohio-s-Graduation-Requirements)
a. **Summer School**

Summer school credits are accepted toward graduation, provided that administrative approval has been given prior to registration for the course.

b. **College Credit Plus and Postsecondary Enrollment Options**

Credit is awarded for courses successfully completed at an accredited postsecondary institution. High school credit awarded for a course successfully completed under College Credit Plus, or where applicable the former Postsecondary Enrollment Options Program, counts toward the graduation requirements and subject area requirements of the District. If a course comparable to the course successfully completed is offered by the District, then comparable credit for the completed equivalent course is awarded. If no comparable course is offered, the District grants to the student an appropriate number of credits in a similar subject area.

c. **Correspondence Courses**

- High school courses offered through correspondence courses are accepted for credit toward graduation only when they meet the following criteria.
- Credits earned in correspondence schools directly affiliated with state universities are evaluated by the school administration for students who wish to qualify for graduation from high school.
- Credits earned from correspondence schools not directly affiliated with an accredited college or university may not be applied toward graduation.
- Credits earned from schools that have been established primarily for correspondence study, rather than an institution primarily for residence study, are not accepted toward graduation.

d. **Course Work Prior to Ninth Grade**

Student work successfully completed prior to the ninth grade is applied towards graduation credit if the course is taught by a teacher holding a license valid for teaching high school and is designated by the Board as meeting the high school curriculum requirements.
State of Ohio Honors Diploma Requirements

1. **Academic Honors**
   In order for a college prep student to receive a State of Ohio Honors diploma, he or she needs to meet all but one of the following criteria:

   1. Earn four units of English.
   2. Earn four units of mathematics which shall include Algebra I, Geometry, and Algebra II or equivalent and another higher level course or a four-year sequence of courses which contains equivalent content.
   3. Earn four units of science including two units of advanced science.
   4. Earn four units of social studies.
   5. Earn either three units of one foreign language or two units each of two foreign languages.
   6. Earn one unit of fine arts.
   7. Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year.
   8. Obtain the score of 27 or higher on the American College Testing programs (ACT) tests or a composite score of 1280 or higher on the Scholastic Assessment Tests (SAT) (excluding scores from the writing sections).

2. **Career Technical**
   In order for a career technical student to receive a State of Ohio Honors diploma, he or she needs to meet all but one of the following criteria:

   1. Earn four units of English.
   2. Earn four units of mathematics which shall include Algebra I, Geometry, and Algebra II or equivalent, and another higher level course or a four-year sequence of courses which contains equivalent content.
   3. Earn four units of science including two units of advanced science.
   4. Earn four units of social studies.
   5. Earn a minimum of four units of Career Tech or Tech Prep. The program must lead to an industry recognized credential, an apprenticeship or be part of an articulated career pathway which can lead to post-secondary credit.
   6. Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year.
   7. Obtain the score of 27 on the American College Testing program’s (ACT) tests or a composite score of 1280 on the Scholastic Assessment Tests (SAT) or a minimum score of a 6 on the math WorkKeys and a minimum score of a 6 on the Reading WorkKeys
   8. Complete a field experience and document the experience in a portfolio specific to the student’s area of focus
   9. Develop a comprehensive portfolio of work based on the student’s field experience or a topic related to the student’s area of focus that is reviewed and validated by external experts

Note: Diploma with Honors requirements pre-supposes completion of all high school diploma requirements from the State of Ohio, including: ½ unit of Phys. Ed., ½ unit of health, ½ unit of American History and ½ unit of government.
3. **STEM Honors Diploma**

In order for a college prep student to receive a State of Ohio Honors diploma, he or she needs to meet **all but one** of the following criteria:

1. Earn four units of English.
2. Earn four units of mathematics which shall include Algebra I, Geometry, and Algebra II or equivalent and one other higher level course or a four-year sequence of courses which contains equivalent or higher content.
3. Earn five units of science including two units of advanced science.
4. Earn three units of social studies.
5. Earn either three units of one foreign language or two units each of two foreign languages.
6. Earn one unit of fine arts.
7. Earn two elective units with a focus in STEM courses.
8. Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year.
9. Obtain the score of 27 on the American College Testing programs (ACT) tests or a composite score of 1280 on the Scholastic Assessment Tests (SAT).
10. Complete a field experience and document the experience in a portfolio specific to the student’s area of focus.
11. Develop a comprehensive portfolio of work based on the student’s field experience or a topic related to the student’s area of focus that is reviewed and validated by external experts.

4. **Arts Honors Diploma**

In order for a college prep student to receive a State of Ohio Honors diploma, he or she needs to meet **all but one** of the following criteria:

1. Earn four units of English.
2. Earn four units of mathematics which shall include Algebra I, Geometry, and Algebra II or equivalent and one other higher level course or a four-year sequence of courses which contains equivalent or higher content.
3. Earn three units of science including one unit of advanced science.
4. Earn three units of social studies.
5. Earn either three units of one foreign language or two units each of two foreign languages.
6. Earn four units of fine arts.
7. Earn two elective units with a focus in the fine arts course work.
8. Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year.
9. Obtain the score of 27 on the American College Testing programs (ACT) tests or a composite score of 1280 on the Scholastic Assessment Tests (SAT).
10. Complete a field experience and document the experience in a portfolio specific to the student’s area of focus.
11. Develop a comprehensive portfolio of work based on the student’s field experience or a topic related to the student’s area of focus that is reviewed and validated by external experts.
5. **Science & Civic Engagement Honors Diploma**

In order for a college prep student to receive a State of Ohio Honors diploma, he or she needs to meet **all but one** of the following criteria:

1. Earn four units of English.
2. Earn four units of mathematics which shall include Algebra I, Geometry, and Algebra II or equivalent and one other higher level course or a four-year sequence of courses which contains equivalent or higher content.
3. Earn three units of science including one unit of advanced science.
4. Earn five units of social studies.
5. Earn either three units of one foreign language or two units each of two foreign languages.
6. Earn one unit of fine arts.
7. Earn three elective units with a focus in social science and/or civics.
8. Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year.
9. Obtain the score of 27 on the American College Testing programs (ACT) tests or a composite score of 1280 on the Scholastic Assessment Tests (SAT).
10. Complete a field experience and document the experience in a portfolio specific to the student’s area of focus.
11. Develop a comprehensive portfolio of work based on the student’s field experience or a topic related to the student’s area of focus that is reviewed and validated by external experts.
State of Ohio Seal of Biliteracy

In order for a college prep student to receive a State of Ohio Seal of Biliteracy, he or she needs to meet all of the following criteria:

1. Earn four units of English.
2. Earn four units of mathematics which shall include one unit of Algebra II or its equivalent and one other higher level course or a four-year sequence of courses which contains equivalent or higher content.
3. Earn three units of science.
4. Earn three units of social studies.
5. Earn one unit of fine arts.
6. Earn a half unit of health and a half unit of physical education.
7. Earn four additional units of elective credit.
8. Meet one of the English language arts proficiency requirements listed below...
   a. Earn a proficient level (3) or high on Ohio’s required state tests for high school English language arts I or II
   b. Earn a remediation-free score on the English and reading section of the ACT or SAT
   c. Earn a proficient level or higher on on Ohio Department of Education - approved alternative assessment (TerraNova or Iowa Test)
   d. Earn a score of proficient or higher on the 9-12 Ohio English Language Proficiency Assessment (OELPA)
9. Meet one of the foreign language arts proficiency requirements listed below…
   a. Earn a score of 4 or higher on an Advanced Placement (AP) foreign language examination
   b. Qualify for proficiency-based credits through Ohio’s credit flexibility program and attain a score of Intermediate High or higher in comprehension, speaking, reading and writing based in the American Council for the Teaching of Foreign Languages Proficiency Guidelines using assessments approved by the Ohio Department of Education
   c. Attain a score of Intermediate High or higher on American Council for the Teaching of Foreign Languages Proficiency Guidelines in interpersonal signing, presentational signing and demonstrating understanding of American Sign Language on an American Sign Language assessment approved by the Ohio Department of Education
   d. Attain a score of Intermediate High or higher on American Council for the Teaching of Foreign Languages Proficiency Guidelines in interpretive reading and presentational writing on a classical languages assessment approved by the Ohio Department of Education
3. COLLEGE CREDIT PLUS:

What is It?
Eligible students can take courses and earn high school and college credit that appears on both their high school and college transcripts. Teachers who teach a College Credit Plus course in a high school must receive professional development and be an adjunct professor at a college or university. All courses offered through College Credit Plus – even courses offered at the high school – must be the same course that the college offers. The course must apply to a degree or professional certificate. College Credit Plus replaces Post-Secondary Education Option, also known as PSEO, and redefines “alternative dual enrollment” programs as advanced standing programs.

Why?
Ohio needs more students who graduate college-and career-ready. College Credit Plus increases access for students who have not taken full advantage of the opportunity to earn college credits while in high school.

Where?
The student enrolled in both high school and college and can attend the class in any setting arranged by the college.

Who?
Ohio public school districts and Ohio public colleges and universities must participate in College Credit Plus. Nonpublic high schools and colleges and universities may choose to participate. To be eligible, students must meet the admission standards of the participating college or university to which they apply for enrollment.

How does a student get started?
All participating public and private schools, colleges, and universities must promote College Credit Plus opportunities on their websites. Additionally, an informational meeting will be held annually for students and parents.

Cost:
There is no cost for the student to participate in College Credit Plus when the student is enrolled in a public college or university. The high school and college or university will share the cost for the course. Students choosing to enroll in a participating college or university might incur costs. Students are responsible for tuition and book charges for failed courses where students earn a failing grade or if students withdraw past the college deadline for a full refund.

Additional Information:
● Student must be enrolled in both college and high school.
● Students must apply and be accepted by the corresponding college (which may include achieving qualifying scores on college entrance exams)
● Student to earn transcripted college and high school credit upon successful completion of the course.
● Schools who offer advanced standing courses that have the potential to enhance student grades or class rank must offer the same opportunity to enhance the grades or class ranking of students taking similar coursework under College Credit Plus.
● Annually (Institutes of Higher Education and High Schools) coordinate on College Credit Plus event for students and parents.
● Taught by an instructor who meets the Board of Regent academic credentialing requirements.
● April 1 is the deadline students must notify counselors of their intention to take College Credit Plus in the upcoming year.
● For high school athletes, the “clock” for NCAA eligibility begins after graduation.
## College Credit Plus Model Course Pathways:

### ASSOCIATE IN ARTS TRANSFER PATHWAY

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1111/1117</td>
<td>General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>ENG 1101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1470 OR</td>
<td>College Algebra OR</td>
<td>3 OR</td>
</tr>
<tr>
<td>MAT 1450</td>
<td>Introductory Statistics*</td>
<td>4</td>
</tr>
<tr>
<td>PLS 1120</td>
<td>American Federal Government</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 13/14

* See Academic Advisor for appropriate course selection

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1211/1217</td>
<td>General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>COM 2211</td>
<td>Effective Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENG 1201</td>
<td>English</td>
<td>5</td>
</tr>
<tr>
<td>HIS 1112</td>
<td>Western Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>PSY 1100</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 16

### ASSOCIATE IN SCIENCE TRANSFER PATHWAY

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 1171 OR</td>
<td>Principles of Biology I* (Fall Only) OR</td>
<td>5</td>
</tr>
<tr>
<td>CHE 1211/1251</td>
<td>General Chemistry I*</td>
<td>5</td>
</tr>
<tr>
<td>PSY 1100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 1112</td>
<td>Western Civilization II</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 14

* See Academic Advisor for appropriate course selection

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1201</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 1272 OR</td>
<td>Principles of Biology II (Spring Only) OR</td>
<td>5</td>
</tr>
<tr>
<td>CHE 1221/1261</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>MAT 2270</td>
<td>Calculus and Analytic Geometry I</td>
<td>5</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 16
4. TYPES OF COURSES

a. Elective Courses:
Elective courses are those, which are not specifically identified as graduation requirements. You will need to take some elective courses in order to have sufficient credits to graduate. All elective courses are designed to provide you with a marketable skill, make you a better-informed community member, and/or assist you in expanding your knowledge in areas that will become life-long hobbies or avocations.

b. Honors Courses:
Courses designated as Honors award weighted grades, meaning grades for these add the value of 0.5 (for grades of C and above) in this computation.

c. Prerequisite Courses:
A prerequisite is a condition that must be met before a student may enroll in a certain course. The prerequisites are listed at the end of each course description. Please check these requirements carefully before making selections. Prerequisites reflect the desire of each department to insure the success of students in selected courses.

d. Co-requisite Courses:
A course listed as a co-requisite must be taken prior to or at the same time as a certain course.

e. Recommended Course:
A recommended course is not necessarily one that must be taken to meet a requirement, however, it is a course that has been found highly valued by colleges and employers.

f. Required Courses:
A required course is one that must be successfully completed in order to meet NWLSD graduation requirements. For example, a student must successfully complete American Government in order to graduate. Graduation requirements are listed in this booklet on page 8.

g. Advanced Placement (AP) Courses:
These classes are College Board approved courses designed to prepare the student for taking college-level coursework and exams while still in high school. Taking AP courses can result in students earning college credit or placement once the student enrolls in a college or university. Most colleges and universities award credit for meeting their success criteria on AP Exams. It is important the student be informed about the policies of their potential colleges. All students taking AP courses are required to take the AP exam in the Spring. Students taking more than 3 AP courses in the same term may remain enrolled in those courses as long as they have paid the AP Exam Fee for at least 3 courses. Students who elect not to take the AP Exam for courses beyond the 3 must take a final exam for the course.

h. College Credit Plus (CCP) - courses offered on the CHS or NWHS campus
These classes are offered in our high schools, by our teachers, in partnership with area colleges. Students enrolled in these courses must be accepted by the corresponding college and meet all application deadlines in order to receive both high school and college credit for the course. Course availability is dependent upon teacher credentialing and may differ between the high schools. Northwest partners with Sinclair College and Cincinnati State for all CCP courses offered on our campuses. See page 59 for more information.
5. CREDIT FLEXIBILITY
Students, under a board and state policy, have the opportunity to earn credits outside of the school day that can count for graduation requirements. Those students interested in earning credits in this manner are advised to see their counselor to complete the required paperwork by April 1, of the school year prior to which they plan to earn credits. More information about credit flexibility can be found on the district website www.nwlsd.org.
Credit flexibility shifts the focus from “seat time” to performance. Students can earn units of high school credit based on an individually approved credit flexibility plan. The intent of credit flexibility is to meet increased expectations for high school graduation in response to globalization, technology and demographics, and to meet the demand for 21st century skills. Students can earn high school credit by:
1. Completing coursework;
2. Showing mastery of course content;
3. Pursuing an educational option and/or an individually approved option and/or
4. Any combination of the above.
All credit flexibility applications must be approved no later than April 1st the school year prior to actual participation.

6. HIGH SCHOOL ATHLETIC ELIGIBILITY POLICY
To be eligible, a student must be currently enrolled and must have been enrolled in school during the immediately preceding 9-week grading period. During the preceding 9-week period, the student must have received passing grades in a minimum of five (5) one-credit courses or the equivalent, each of which counts toward graduation.
Any student with a total grade point average of less than 2.0 on the weighted scale but higher than a 1.0 will be placed on “Academic Watch.” Any student on ‘Academic Watch’ must have his/her teachers complete a weekly grade and effort report during that season and submit it to the head coach.
Athletic participation forms for high school athletes shall be signed by a physician, the athlete and by a parent or guardian. These completed forms must be on file with the athletic director before any candidate for a team may participate in a practice. These forms require that a doctor certifies the athlete’s physical fitness no less than once a year.

7. NCAA INITIAL ELIGIBILITY
Student-athletes who have the potential to play Division I or II college athletics must register with the NCAA Eligibility Center during their senior year at www.eligibilitycenter.org. Students must pass a rigorous high school curriculum with a set GPA and ACT/SAT score in order to establish eligibility.
Transcripts are not automatically sent to the Eligibility Center. It is the student’s responsibility to request that their transcript be sent at the time their applications are submitted online. Transcript request information can be found in the Guidance Department.
All ACT and SAT scores must be reported directly to the NCAA Eligibility Center by the testing agency. When registering for the ACT or SAT, use the Eligibility Center code of “9999” to ensure that your scores are forwarded directly. Be sure to look at your high school’s list of NCAA-approved core courses on the Eligibility Center’s Web site and check with your guidance counselor to make certain that courses being taken have been approved as core courses.
PLEASE NOTE: All NCAA-approved core courses are indicated with “(NCAA √)” after the course description.
Edgenuity core course offerings have been approved for English, math, science and social studies.
NCAA INITIAL ELIGIBILITY (cont.)

For more information regarding the rules, please go to www.NCAA.org.

<table>
<thead>
<tr>
<th>DIVISION I</th>
<th>DIVISION II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>16 Core Courses:</strong></td>
<td><strong>16 Core Courses:</strong></td>
</tr>
<tr>
<td>4 years of English</td>
<td>3 years of English</td>
</tr>
<tr>
<td>3 years of Mathematics (Algebra I or higher)</td>
<td>2 years of Mathematics (Algebra I or higher)</td>
</tr>
<tr>
<td>2 years of natural/physical science (1 year of lab if offered by HS)</td>
<td>2 years of natural/physical science (1 year of lab if offered by HS)</td>
</tr>
<tr>
<td>1 year of additional English, Mathematics or Natural/Physical Science</td>
<td>3 years of additional English, Mathematics or Natural/Physical Science</td>
</tr>
<tr>
<td>2 years of social science</td>
<td>2 years of social science</td>
</tr>
<tr>
<td>4 years of additional courses (from any area above, foreign language or non-doctrinal religion/philosophy)</td>
<td>4 years of additional courses (from any area above, foreign language or non-doctrinal religion/philosophy)</td>
</tr>
</tbody>
</table>
8. NCAA APPROVED CORE COURSES

All approved NCAA courses will be indicated with the following: “NCAA √”

<table>
<thead>
<tr>
<th>English</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors English I</td>
<td>Adv. Geometry</td>
<td>Honors Physical Science</td>
</tr>
<tr>
<td>Honors English II</td>
<td>Algebra II</td>
<td>Honors Biology</td>
</tr>
<tr>
<td>Honors English III</td>
<td>Adv. Algebra II</td>
<td>AP Biology</td>
</tr>
<tr>
<td>Honors English IV</td>
<td>Honors Algebra II</td>
<td>Adv. Chemistry</td>
</tr>
<tr>
<td>AP Composition and Language</td>
<td>Adv. Pre-Calculus</td>
<td>Honors Chemistry</td>
</tr>
<tr>
<td>AP Literature and Language</td>
<td>Honors Pre-Calculus</td>
<td>AP Chemistry</td>
</tr>
<tr>
<td></td>
<td>Adv. Algebra II-B</td>
<td>Honors Genetics</td>
</tr>
<tr>
<td></td>
<td>Algebra III</td>
<td>Astronomy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adv. Physics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Honors Physics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AP Physics I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adv. Zoology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Honors Zoology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Studies</th>
<th>World Languages</th>
<th>New Courses Pending NCAA Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors Modern World Studies</td>
<td>French II</td>
<td>Sociology</td>
</tr>
<tr>
<td>Adv. American History</td>
<td>French III</td>
<td>Psychology</td>
</tr>
<tr>
<td>Honors American History</td>
<td>French IV</td>
<td>AP World History</td>
</tr>
<tr>
<td>Women in Amer. History</td>
<td>AP French IV</td>
<td>AP Human Geography</td>
</tr>
<tr>
<td>AP US Govt. &amp; Pol. Sci.</td>
<td>Spanish I</td>
<td>African American Literature</td>
</tr>
<tr>
<td>Adv. American Government</td>
<td>Spanish II</td>
<td>American Literature</td>
</tr>
<tr>
<td>AP US History</td>
<td>Spanish III</td>
<td>American Short Stories, Drama, and Poetry</td>
</tr>
<tr>
<td>World Religions</td>
<td>Spanish IV</td>
<td>Composition III</td>
</tr>
<tr>
<td>African Amer. History</td>
<td>AP Spanish IV</td>
<td>World Literature</td>
</tr>
<tr>
<td>AP Psychology</td>
<td>American Sign Language I</td>
<td>Genre Fiction</td>
</tr>
<tr>
<td>AP European History</td>
<td>American Sign Language II</td>
<td>Literary Non-fiction</td>
</tr>
</tbody>
</table>

New Courses Pending NCAA Approval

- Advanced Statistics
- American Sign Language III
**9. COLLEGE AND CAREER PATHWAYS**

Northwest Local School District uses the Naviance program to help students identify and connect personal strengths and interests to postsecondary goals, improving student outcomes and connecting learning to life.

A career pathway is a series of academic and technical career-focused coursework and other educational learning experiences leading to a career specialty and employment in a career field. Pathways facilitate a seamless transition from high school to postsecondary education (including apprenticeships, adult education, two- and four-year colleges and graduate school) and from postsecondary education to the workplace. For additional career planning, schedule a visit with your school counselor.

<table>
<thead>
<tr>
<th>Agricultural and Environmental Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes technical-and professional-level careers in animal and crop production, agricultural services and engineering, food processing, horticulture, natural resource management, environmental services, agricultural and environmental education, communications and research.</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
</tr>
<tr>
<td>Zoology, Biology, Ecology, Geology, Animal Care and Conservation, Genetics</td>
</tr>
<tr>
<td><strong>Butler Tech Programs:</strong></td>
</tr>
<tr>
<td>Equine Science, Landscape Science, Veterinary Science, Firefighting Technology, Diesel/Commercial Truck</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arts and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes technical- and professional-level careers related to the humanities and the performing, visual, literary and media arts.</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
</tr>
<tr>
<td>Art Studio, Advanced Design, Music Theory, Show Choir, Concert Orchestra, Jazz Band, AP Art</td>
</tr>
<tr>
<td><strong>Butler Tech Programs:</strong></td>
</tr>
<tr>
<td>Digital Media, Performing Arts: Dance, Music, Theatre, Visual Design, Commercial Arts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business and Administrative Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes technical- and professional-level careers in business management, administrative support, human resources and business administration that encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
</tr>
<tr>
<td>Advanced Economics, Calculus</td>
</tr>
<tr>
<td><strong>Butler Tech Programs:</strong></td>
</tr>
<tr>
<td>High School of Business, Medical Administrative Specialist</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes technical- and professional-level careers in designing, planning, managing and building and maintaining the built environment, including roadways and bridges and industrial, commercial and residential facilities and buildings.</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
</tr>
<tr>
<td>Geometry, pre-calculus</td>
</tr>
<tr>
<td><strong>Butler Tech Programs:</strong></td>
</tr>
<tr>
<td>Construction, Welding Technology, Precision Machining, Power Driven Equipment, Interior Remodeling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes technical- and professional-level careers in planning, managing and providing education and training services and related learning support services.</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
</tr>
<tr>
<td>Psychology, Sociology, courses related to content area focus</td>
</tr>
<tr>
<td><strong>Butler Tech Courses:</strong></td>
</tr>
<tr>
<td>Human Growth and Development</td>
</tr>
</tbody>
</table>
### Engineering and Science Technologies
Includes technical- and professional-level careers in planning, managing, and providing scientific research and services such as laboratory and testing and research and development; and (b) design, process and development services such as electrical engineering, industrial engineering, materials science, nanofabrication, fuel cell technology and robotics.

**Possible NWLSD Courses:**
Chemistry, Physics, Calculus  
**Butler Tech Programs:**
Engineering Design, Precision Machining

### Finance
Includes technical- and professional-level careers in financial and investment planning, accounting, banking, insurance, real estate and business financial management.

**Possible NWLSD Courses:**
Economics, Calculus, Statistics  
**Butler Tech Programs:**
Financial Services, High School of Business

### Government and Public Administration
Includes technical- and professional-level careers in national defense, foreign service, governance, revenue and taxation, regulation and public administration at local, state and federal levels.

**Possible NWLSD Courses:**
**Butler Tech Programs:**
Butler Tech Business, Criminal Justice, Firefighting Technology

### Health Science
Includes technical- and professional-level careers in planning, managing and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.

**Possible NWLSD Courses:**
Genetics, Anatomy and Physiology, Physics, Chemistry, Zoology, AP Biology, Calculus  
**Butler Tech Programs:**
Healthcare Services, Dental Assisting, Sports Medicine, Exercise Science, Health Technology, Biomedical Science

### Hospitality and Tourism
Includes technical- and professional-level careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel-related services.

**Possible NWLSD Courses:**
Economics, Statistics  
**Butler Tech Programs:**
Butler Tech Business, Culinary Arts

### Human Services
Includes technical- and professional-level careers related to families and human needs within economic, political and social systems such as social services, counseling and mental health services, consumer services and personal care services.

**Possible NWLSD Courses:**
A.P. Psychology, Psychology, Sociology, Service Learning  
**Butler Tech Programs:**
Sports Medicine, Cosmetology, Health Technology
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Possible NWLSD Courses</th>
<th>Butler Tech Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Technology</strong></td>
<td>Includes technical- and professional-level careers in the design, development, support and management of hardware, software, multimedia and systems integration services. The four IT pathways are Information Support and Services, Communication Network Services, Programming and Software Development/Applications and Interactive Multi-Media Development.</td>
<td>Calculus, Statistics, Chemistry, Biology, Physics, Student Technology Support and Innovations</td>
<td>Information Technology, Programming and Software Development</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Law and Public Safety</strong></td>
<td>Includes technical- and professional-level careers in planning, managing, and providing judicial, legal, public administration, public safety and protective services and homeland security including professional and technical support services in public planning, emergency management planning, fire protection, emergency medical services and the criminal justice system.</td>
<td>Modern American Issues, European History, African American History, Women in American History</td>
<td>Criminal Justice, Firefighting Technology</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Manufacturing Technologies</strong></td>
<td>Includes technical- and professional-level careers in planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering</td>
<td>Geometry, Pre-calculus, Chemistry</td>
<td>Construction Technology, Precision Machining, Construction, Welding Technology</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing</strong></td>
<td>Includes technical-and professional-level careers in planning, managing, and performing marketing activities such as distribution, promotion, pricing, selling, financing, information management and product/service management to reach organizational objectives.</td>
<td>Economics, Statistics</td>
<td>Financial Services, Butler Tech Business, Commercial Arts, Digital Media, Visual Design</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transportation Systems</strong></td>
<td>Includes technical- and professional-level careers in planning, management and movement of people, materials and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services and mobile equipment and facility maintenance.</td>
<td>Geometry, Economics</td>
<td>Automotive Technology, Commercial Truck/Diesel and Equipment Repair, Power Driven Equipment</td>
</tr>
<tr>
<td><strong>Possible NWLSD Courses:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Butler Tech Programs:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. COURSE DESCRIPTIONS

Below is a guide to assist in understanding the course descriptions that follow:

**Prerequisite(s):** Previous courses or other requirements a student must meet to be enrolled in the class.

**Credits:** Refers to the number of units a student can earn by passing course.

**Location** refers to where a specific Career and Technical Education course is offered including Colerain Career Center (CCTC), Northwest Career Center (NWCTC), D. Russell Lee (DRL), the Natural Science Center (NSC) or the School of the Arts (SOA).

**NCAA √** indicates that the course has been approved by the NCAA

**Fees:** The specific cost to take a Career and Technical Education course. Instructional fees for consumable materials and labs are also charged for some academic and elective courses following the fee schedule approved by the Board of Education.

**Year:** Refers to the specific grade level during which the course may be taken.

**Course #** is the scheduling number for each class.

<table>
<thead>
<tr>
<th>Course Weight Codes:</th>
<th>General – Gen.</th>
<th>Adv. – Advanced</th>
<th>CCP-College Credit Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Honors – Honors</td>
<td>AP – Advanced Placement</td>
<td></td>
</tr>
</tbody>
</table>

**Core Academic and Core Elective Codes:**

<table>
<thead>
<tr>
<th>Core Elective Codes</th>
<th>2000-2999</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>3000-3999</td>
</tr>
<tr>
<td>Science</td>
<td>4000-4999</td>
</tr>
<tr>
<td>Social Studies</td>
<td>5000-5999</td>
</tr>
<tr>
<td>Butler Tech Courses (@ NWHSD and CHS)</td>
<td>6000-6499</td>
</tr>
<tr>
<td>College Credit Plus Courses (CCP)</td>
<td>6500-6599</td>
</tr>
<tr>
<td>Credit Recovery</td>
<td>8000-8999</td>
</tr>
</tbody>
</table>

**Non-Core Elective Codes**

<table>
<thead>
<tr>
<th>Non-Core Elective Codes</th>
<th>1201-1299</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Language</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>1001-1199</td>
</tr>
<tr>
<td>Music (Instrumental and Vocal)</td>
<td>1301-1399</td>
</tr>
<tr>
<td>PE/Health</td>
<td>1401-1499</td>
</tr>
<tr>
<td>College &amp; Career Readiness</td>
<td>1501-1699</td>
</tr>
<tr>
<td>Academic Intervention</td>
<td>1701-1799</td>
</tr>
<tr>
<td>Non-Core Electives</td>
<td>1801-1899</td>
</tr>
</tbody>
</table>

**Courses listed in the guide are for consideration and planning purposes. Actual offerings may vary depending on enrollment, etc.**

***CCP courses are offered based on teacher credentialing and course offerings may vary between the high schools.***
ENGLISH DEPARTMENT

The State of Ohio requires students to earn a minimum of 4 English credits for graduation. Students are required to take End of Course Exams after completion of English I and English II.

**Adv. English I**

This required freshman English course offers students the opportunity to study a variety of literary genres to enrich and expand their reading, writing, listening and speaking skills through the study of language arts. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

- **Prerequisite:** None
- **Year:** 9th
- **Credit:** 1 credit
- **Term:** 2 semesters
- **NCAA:** √

**Honors English I**

This is the first required course in the Honors English Program. It is offered to selected academically advanced freshmen who will study various literary genres while integrating listening, speaking, viewing and writing skills. A variety of oral communication experiences are taught throughout the course. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points. Summer readings and a completed writing portfolio may be required components of the course.

- **Prerequisite:** 9th grade standing and selected criteria
- **Year:** 9th
- **Credit:** 1 credit
- **Term:** 2 semesters
- **NCAA:** √

**Adv. English II**

This required course is designed to develop, in the college-prep student, a continuation in the understanding and appreciation of literature through the study of various genres. Here students will enrich and expand their reading, writing, listening, viewing and speaking skills. In addition to reading quality literature, applying new vocabulary and reviewing several topics in grammar, English usage and mechanics, students will write compositions that incorporate several forms of writing. A variety of oral communication experiences are taught throughout the course. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

- **Prerequisite:** Adv. English I
- **Year:** 10th
- **Credit:** 1 credit
- **Term:** 2 semesters
- **NCAA:** √

**Honors English II**

This course is offered as the second year of the Honors English Program for selected academically advanced sophomores who will study a variety of literary genres as they continue to enrich and expand their reading, writing, listening and speaking skills through the study of the language arts. Depth of materials and the pace of the course instruction will be tailored to meet the increasing independence and sophistication of the academically advanced tenth grade student. A variety of oral communication experiences are taught throughout the course. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points. Summer readings and a completed writing portfolio may be required components of the course.

- **Prerequisite:** Honors English I and/or Teacher Recommendation
- **Year:** 10th
- **Credit:** 1 credit
- **Term:** 2 semesters
- **NCAA:** √
ENGLISH DEPARTMENT (cont.)

Adv. Composition III  
This required course prepares students to write frequently and publish works intended for a wide variety of audiences. The modes of writing will include academic pieces such as college essays, literary analysis pieces, argumentative and critical responses, and supporting career research and analysis. These writing experiences will allow for opportunities to develop vocabulary, strengthen the writing and publishing process and employ critical thinking skills through for a variety of writing purposes. Students will develop strong writing skills that will serve them in college or career paths in the 21st century.

Prerequisite: Adv. English I, II  
Credit: .5 credit
Year: 11th  
Term: 1 semester
NCAA √ pending

Adv. African American Literature  
This course is one of the ½ credit options to fulfill the literature requirement. Here students will engage in close reading, writing, textual citation, critical discussion, and careful analysis of literature produced by African American writers and African-centered literature from 1750s through today. Each major work is studied critically in its historical, social, philosophical, biographical, and canonical contexts, in relation to developing a cultural identity. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of seminal American literature texts by African American writers.

Prerequisite: English I, II  
Credit: .5 credit
Year: 11th, 12th  
Term: 1 semester
NCAA √ pending

Adv. American Literature  
This course is one of the ½ credit options to fulfill the literature requirement. In this course, students read and analyze works of American literature from Colonial to contemporary times, including poetry, short stories, novels, drama, and nonfiction. Students will develop a strong understanding of the progression of American authors through study of these texts. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of seminal American literature texts.

Prerequisite: English I, II  
Credit: .5 credit
Year: 11th, 12th  
Term: 1 semester
NCAA √ pending

Adv. American Short Stories, Drama and Poetry  
This course is one of the ½ credit options to fulfill the literature requirement. This course will study a wide variety of short stories, plays and a number of poetic forms. Students will gain insight in analysis of literature by studying form (diction, tone, figures of speech, and rhythm) and will complete author, poet and playwright studies. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of historical and modern selections.

Prerequisite: English I, II  
Credit: .5 credit
Year: 11th, 12th  
Term: 1 semester
NCAA √ pending
ENGLISH DEPARTMENT (cont.)

Adv. Genre Fiction
Course #2411
This course is one of the ½ credit options to fulfill the literature requirement. The course will focus on gothic and science fiction as genres melding literary art, scientific and philosophical speculation. It will survey the history of the genre and then delve into representative themes, rhetoric, and methods of storytelling in texts other media. In addition, we’ll examine the composition of this genre of texts from a writer’s standpoint. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of historical and modern selections.

Prerequisite: English I, II
Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √ pending

Adv. Literary Non-fiction
Course #2412
This course is one of the ½ credit options to fulfill the literature requirement. This course focuses on literary nonfiction—a kind of writing influenced by fiction, magazine journalism, memoir, and personal essay. Students will explore the various forms of creative non-fiction such as the literary memoir and the personal essay as well as newer online forms of the genre. Students learn about the creative possibilities in the blending of fact and fiction that occurs in literary nonfiction. They will study the techniques that turn facts into compelling stories. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of historical and modern selections.

Prerequisite: English I, II
Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √ pending

Adv. World Literature
Course #2413
This course is one of the ½ credit options to fulfill the literature requirement. This course is a comparative study of literary and informational selections from Africa, the Middle East, Asia, Europe, and the Americas, while highlighting British authors and poets, in their historical, social, philosophical, biographical, and canonical contexts. By studying the world and time from which the literature came, examining the author’s life, and placing works within literary movements from around the world, students will become more aware of the relationship of the individual to humanity and literature as a reflection of culture. The literary works provide opportunities for critical writing, creative projects, and discussions. Students develop vocabulary usage and critical thinking skills through close reading of historical and modern selections.

Prerequisite: English I, II
Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √ pending

Adv. Composition IV
Course #2419
This required course is a continuation of the writing instruction in Adv. Composition III. Writing experiences in this course will prepare students for college or career paths in the 21st century and require critical thinking skills. The modes of writing will include academic pieces such as college essays, literary analysis pieces, argumentative and critical responses, and supporting career research and analysis. These writing experiences will allow for opportunities to develop vocabulary, strengthen the writing and publishing process and employ critical thinking skills for a variety of writing purposes. Students will develop strong writing skills that will serve them in college or career paths in the 21st century.

Prerequisite: Adv. English I, II, Composition III
Year: 12th
Credit: .5 credit
Term: 1 semesters
NCAA √ pending
ENGLISH DEPARTMENT (cont.)

Honors English III
This course is a continuation of the Honors English Program into the junior year for selected academically advanced students. They will strive to improve their written and oral communication skills and their appreciation and understanding of major American works and writers who have influenced their literary heritage. Depth of materials and pace of instruction will be tailored to meet the increasing independence and sophistication of the academically advanced junior student. Course requirements may include summer reading and assignments, a personal narrative applicable for college entrance requirements, a successfully completed writing portfolio and compositions utilizing critical analysis.

**Prerequisite:** Honors English II, Teacher Recommendation  
**Year:** 11\(^{th}\)

Honors English IV
This course is the fourth year of the Honors English Program for selected academically advanced students. Entrance into this course will require a successfully completed Showcase Writing Portfolio from the junior year of instruction in Honors English III. Course content will be intensified study of significant works of literature from English literature with continued composition writing to prepare students for freshman college English. Depth of materials and the rigorous pace of the course instruction will provide the needed challenge, independence and sophistication of the academically advanced senior student. Written resumes, along with a cover letter, are required components of the successfully completed Career Passport. Summer readings and a completed writing portfolio may be required components of the course.

**Prerequisite:** Honors English III, Teacher Recommendation  
**Year:** 11\(^{th}\)

AP Language and Composition
The course prepares students to write effectively and confidently in their college courses across the curriculum. Students will learn to read complex texts and analyze literature through intense essay writing assignments. They will learn the process of composing and revising expository, analytical, argumentative, and reflective essays; these assignments will make up the majority of the course work. The course will also focus on the study of a wide range of established authors to enable the students to better understand how these authors effectively employ writing conventions. This class builds on previously learned writing skills, and will prepare the students for AP Literature and Composition in 12\(^{th}\) grade. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. Summer readings and a completed writing portfolio may be required components of the course.

**Prerequisite:** Honors English II, Teacher Recommendation  
**Year:** 11\(^{th}\), 12\(^{th}\)
ENGLISH DEPARTMENT (cont.)

AP Literature and Composition  
Course #2403  
This rigorous course is offered to academically advanced senior students who are seeking to test out of college freshman English and earn college Credits prior to entering college. Here will be an intensified study of significant works of literature from diverse periods of time treating all literary genres drawn from the recommended reading list by the College Board. The course will be structured like a seminar with an emphasis on student generated discussions, analysis of works under construction and timed writings.

The course instruction is driven by course curriculum designated by the College Board to lead to successful passage of the Advanced Placement Exam in English Literature. Depth of materials and the rigorous pace of the course instruction will provide the needed challenge, independence and sophistication of the academically advanced senior student. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. Summer readings and a completed writing portfolio may be required components of the course.

Prerequisite: Honors English III / AP Language & Composition  
Credit: 1 credit  
Year: 12th  
Term: 2 semesters  
NCAA √

ESL I  
Course #2501  
This course focuses on mastering listening, speaking, reading, and writing both vocabulary and sentence forms at the beginning and early levels of the English Language Proficiency Standards. This course emphasizes guided language practice and gradual release of responsibility (I do it, we do it, you do it) based on functions (a purpose of communication).

Prerequisite: Teacher Recommendation  
Credit: 1 credit  
Year: 9th, 10th, 11th, 12th  
Term: 2 semesters

ESL II  
Course #2502  
This course focuses on mastering listening, speaking, reading, and writing both vocabulary and sentence forms at the early and intermediate levels of the English Language Proficiency Standards. This course emphasizes guided language practice and gradual release of responsibility (I do it, we do it, you do it) based on functions (a purpose of communication).

Prerequisite: Teacher Recommendation  
Credit: 1 credit  
Year: 9th, 10th, 11th, 12th  
Term: 2 semesters

ESL III  
Course #2503  
This course focuses on mastering listening, speaking, reading, and writing both vocabulary and sentence forms at the intermediate and early advanced levels of the English Language Proficiency Standards. This course emphasizes guided language practice and gradual release of responsibility (I do it, we do it, you do it) based on functions (a purpose of communication).

Prerequisite: Teacher Recommendation  
Credit: 1 credit  
Year: 9th, 10th, 11th, 12th  
Term: 2 semesters

ESL IV  
Course #2504  
This course focuses on mastering listening, speaking, reading, and writing both vocabulary and sentence forms at the early advanced and advanced levels of the English Language Proficiency Standards. This course emphasizes guided language practice and gradual release of responsibility (I do it, we do it, you do it) based on functions (a purpose of communication).

Prerequisite: Teacher Recommendation  
Credit: 1 credit  
Year: 9th, 10th, 11th, 12th  
Term: 2 semesters
ENGLISH ELECTIVES

Adv. Drama I
Course #2601
This course provides students experiences in the study and practice of theater arts and literature. Students are introduced to the fundamentals of acting with an emphasis on vocal and physical techniques of performance. They will also learn the technical aspects of theater, including the basic concepts of set construction, lighting and costuming. Active participation in the oral interpretation of poetry, stories and original works is required for credit.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .5 credit
Term: 1 semester

Adv. Drama II (CHS Only)
Course #2602
This course is a continuation of Drama I with the additional emphasis on oral interpretation and presentation. Sophistication of materials read, written and presented will provide the foundation of the course work.

Prerequisite: Drama I, Audition, & Teacher Recommendation
Year: 9th, 10th, 11th, 12th
Credit: .5 credit
Term: 1 semester

Adv. Sports in Literature
Course #2603
The impact of sports on society as seen through literature, as well as written and visual media, will be explored as an elective English course for ninth through twelfth grade students. Here they will study a variety of literary genres of classical and contemporary writers, will learn sports journalistic writings for newspaper and media guides, and will further their language, research and oral communication skills through a variety of sports-related activities and assignments.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .5 credit
Term: 1 semester

Adv. Creative Writing/Publishing I
Course #2604
This course offers students the opportunity to explore and enjoy creative writing as they read and compose various pieces of fiction, poetry and drama. Instruction will focus on strategies and techniques in fostering creativity, evaluating and revising works submitted. Much time will be spent in a workshop format giving and receiving feedback and revising.

Prerequisite: Advanced or Honors English I
Year: 9th, 10th, 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √

Adv. Minority Perspectives in Literature
Course # 2605
The focus of this course will be to study the diverse literature of minority writers. Short stories, essays, novels, autobiographies, and poetry will be explored from the point of view of minority groups and how these factors combine to shape the individual. The course will also explore current issues facing minority groups in our society. Included in this course will be a study of history and culture of the society that surrounds these groups. Formal and informal writing will occur as students stimulate their own personal growth through the understanding of minority writers and their life experiences.

Prerequisite: None
Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √
ENGLISH ELECTIVES (cont.)

Adv. Written Media (Yearbook)  
Course # 2606
This course will offer 11th and 12th grade students the opportunity to be a member of the team that designs the school’s yearbook. Students will work to learn the basics of interviewing and article writing as well as layout design, graphic applications, picture dropping, advertising, marketing skills, etc.

Prerequisite: English I, English II, & Art or English  
Teacher Recommendation
Credit: 1 credit
Year: 11th, 12th  
Term: 2 semesters
MATHEMATICS DEPARTMENT
The State of Ohio requires students to earn a minimum of 4 Mathematics credits for graduation. Students are required to take End of Course Exams after completion of Algebra I and Geometry.

**Adv. Algebra I**
This required course focuses attaining competencies in the areas of number sense and operations, measurement, patterns, functions and algebra, and data analysis and probability. Technology Integration is essential in this class and a graphing calculator will be recommended. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

**Course #3101**

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<th>Prerequisite:</th>
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**Adv. Algebra IA**
This course provides experiences in beginning algebra topics. Students will extend their knowledge and experience with linear equations and inequalities, systems of equations and inequalities, functions, exponential relationships, and sequences. Successful completion of this course and Algebra I B will prepare students for the Ohio State Assessment for Algebra I. Technology Integration is essential in this class and a graphing calculator will be recommended.

**Course #3102**

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<th>Prerequisite:</th>
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**Adv. Algebra IB**
This course provides experiences in beginning algebra topics. Students will continue the work started in Algebra I A, and have in depth experiences with quadratic functions, laws of exponents, and statistics. Successful completion of this course and Algebra I A will prepare students for the Ohio State Assessment for Algebra I. Technology Integration is essential in this class and a graphing calculator will be recommended. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

**Course #3103**

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<th>Prerequisite:</th>
<th>Adv. Algebra I A</th>
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<td>Year:</td>
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**Adv. Geometry**
This course provides advanced level contextual math experiences in geometry. Through investigations of real-life contexts, students develop a rich understanding of the geometry that is present in their everyday lives. Topics include geometry from an algebraic and synthetic viewpoint, probability, some trigonometric concepts, discrete mathematics, as well as the continuation and extension of algebra and functions. Technology integration is essential in this class and a graphing calculator will be recommended. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

**Course #3201**

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<tr>
<th>Prerequisite:</th>
<th>Adv. Algebra I</th>
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<td>Year:</td>
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<td>Term:</td>
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MATHEMATICS DEPARTMENT (cont.)

Honors Geometry
This course provides contextual math experiences in geometry while continuing and extending algebraic concepts focusing expansion of topics on the Academic Content Standards for tenth grade. Students participate in interesting investigations and proofs that can be tied to their everyday world. Topics include geometry from an algebraic and synthetic viewpoint, probability, and discrete mathematics. Technology integration is essential in this class and a graphing calculator will be required. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

Prerequisite: Adv. Algebra I & Teacher Recommendation
Year: 9th, 10th
Credit: 1 credit
Term: 2 semesters
NCAA √

Adv. Algebra II
This course provides contextual math experiences in advanced level algebraic concepts as well as extensions of the mathematics learned in the previous two courses. Topics include advanced algebra and functions, quadratics, rational and radical expressions and equations, laws of exponents, trigonometry, purpose and predictability in patterns, polynomials, logarithms, probability and data analysis. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Adv. Geometry & Teacher Recommendation or Honors Geometry
Year: 10th, 11th, 12th
Credit: 1 credit
Term: 2 semesters
NCAA √

Adv. Algebra II-B
This course provides contextual math experiences in advanced level algebraic concepts as well as extensions of the mathematics learned in the previous three courses. Topics include the purpose and predictability in patterns, trigonometry, logarithms, probability and data analysis. Technology integration is essential in this class and a graphing calculator will be recommended.

Prerequisite: Adv. Algebra II A
Year: 12th
Credit: 1 credit
Term: 2 semesters
NCAA √

Honors Algebra II
This course provides high-level emphasis on advanced algebraic concepts as they integrate with all other mathematical content. Students extend and enrich their understanding of mathematics from the previous two courses with real-life applications and problems. Topics include advanced algebra and functions, mathematical structure, extensions and integration with geometric ideas, trigonometry, probability and statistics, discrete mathematics, and the conceptual underpinnings of calculus. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Grade of ‘C’ or higher in Honors Geometry & Teacher Recommendation
Year: 10th, 11th, 12th
Credit: 1 credit
Term: 2 semesters
NCAA √
MATHEMATICS DEPARTMENT (cont.)

Adv. Algebra III (formerly Intro. to College Algebra)  
Course #3406
This course is open to students who have passed Algebra II and are planning to continue their education beyond high school yet are not quite prepared for an Advanced Pre-Calculus class. Topics discussed in this class will be divided into three categories: Extension of Algebra II concepts, Trigonometry, and Probability & Statistics. Successful completion of this course prepares students for entry-level college mathematics courses.

Prerequisite: Adv./Honors Algebra II  
Credit: 1 credit
Year: 11th, 12th  
Term: 2 semesters
NCAA √

Adv. Pre-Calculus  
Course #3401
This course serves as a preparatory course for the study of calculus. It introduces new topics such as limits, conic sections, and matrices. The main focus is a review of topics from Algebra II Advanced, at a more in depth level and with a greater degree of abstraction. The study of functions is the underlying concept for most topics in the course as the students work with polynomial functions, logarithmic functions, exponential functions, trigonometric functions, and circular functions. Students will find the pace of this course to be slower than Pre-Calculus Honors due to the coverage of fewer topics. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Grade of “C” or higher in Adv. Algebra II  
Credit: 1 credit
or Honors Algebra II  
Year: 11th, 12th  
Term: 2 semesters
NCAA √

Honors Pre-Calculus  
Course #3402
This course serves as a preparatory course for the study of Advanced Placement Calculus at the senior high level. The course begins with a rigorous review of Algebra II topics and progresses into an introduction to new topics such as limits, derivatives, integral, vectors, coordinates in space, curve sketching, polar coordinates and exponential and logarithmic functions. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Grade of “C” or higher in Honors Algebra II  
Credit: 1 credit  
& Teacher Recommendation  
Term: 2 semesters
Year: 11th, 12th  
NCAA √

Honors Calculus  
Course #3403
This course serves as a basic introduction to the derivative, the integral, and the special techniques used to find each of them. The theory and the development of Calculus are not stressed; however, many business applications and economics are covered in this course. The pace of this class is less rigorous as compared to the Advanced Placement Calculus class. It is equivalent to a college freshman Business Calculus course. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Grade of “C” or higher in Adv. Pre-Cal  
Credit: 1 credit  
or Honors Pre-Calculus  
Term: 2 semesters
Year: 11th, 12th  
NCAA √
MATHEMATICS DEPARTMENT (cont.)

AP Calculus  
Course #3404  
This course is a rigorous treatment of differential and integral calculus with analytic geometry. There is an introduction to the topics of intervals, functions and limits, infinite series, and differential equations. Theory as well as technique is emphasized. This course requires an extensive knowledge of algebra, geometry, and trigonometry. This course is equivalent to a college freshman Calculus course and follows the criteria set by the College Board Advanced Placement guidelines. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Grade of “C” or higher in Honors Pre-Calculus & Teacher Recommendation
Year: 12th

Credit: 1 credit
Term: 2 semesters
NCAA √

Advanced Statistics  
Course #3407  
This course is designed to give students to a basic understanding of collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns in advance, and statistical inference. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Completed or concurrent enrollment in Advanced Alg 2
Year: 11th, 12th

Credit: 1 credit
Term: 2 semesters
NCAA √

AP Statistics  
Course #3405  
This course is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns in advance, and statistical inference. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. Technology integration is essential in this class and a graphing calculator will be required.

Prerequisite: Honors Algebra II & Teacher Recommendation
Year: 11th, 12th

Credit: 1 credit
Term: 2 semesters
NCAA √
SCIENCE DEPARTMENT
The State of Ohio requires students to earn a minimum of 3 science credits for graduation including one credit in a biological science and one credit in a physical science. Students are required to take an End of Course Exam after completion of Biology. Each course in this section has a notation as to whether it is offered for biological or physical science credit.

Adv. Physical Science
Course #4101
This course introduces students to key concepts and theories that provide a foundation for further study in other sciences and advanced science disciplines. Physical science comprises the systematic study of the physical world as it relates to fundamental concepts about matter, energy and motion. A unified understanding of phenomena in physical and space systems is the culmination of all previously learned concepts related to chemistry, physics, and space science, along with historical perspective and mathematical reasoning. This course meets the graduation requirement for a unit of physical science.

Prerequisite: None
Credit: 1 credit
Year: 9th
Term: 2 semesters
NCAA √

Hon. Physical Science
Course #4102
This honors level course introduces students to key concepts and theories that provide a foundation for further study in other sciences and advanced science disciplines. Physical science comprises the systematic study of the physical world as it relates to fundamental concepts about matter, energy and motion. A unified understanding of phenomena in physical and space systems is the culmination of all previously learned concepts related to chemistry, physics, and space science, along with historical perspective and mathematical reasoning. This course meets the graduation requirement for a unit of physical science.

Prerequisite: Concurrent enrollment in Honors Biology, Honors Geometry and teacher recommendation based on student data
Credit: 1 credit
Year: 9th
Term: 2 semesters
NCAA √

Adv. Biology
Course #4201
Advanced Biology is designed so that attention is given to important principles and concepts that form a basis for understanding and interpreting the characteristics of life. This course will satisfy the biological science requirements as set forth in the Ohio Academic Content Standards for 10th grade. Students study the structure and function of living organisms. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points. This course meets the graduation requirement for a unit of biological science.

Prerequisite: Adv. Physical Science
Credit: 1 credit
Year: 10th
Term: 2 semesters
NCAA √

Honors Biology
Course #4202
Honors Biology is designed so that attention is given to important principles and concepts that form a basis for understanding and interpreting the characteristics of life. Students study the structure and function of living organisms. This course will satisfy the biological science requirements as set forth in the Ohio Academic Content Standards for 10th grade. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points. This course meets the graduation requirement for a unit of biological science.

Prerequisite: Adv. Physical Science with a B or Honors Physical Science with a C or better and/or Teacher Recommendation
Credit: 1 credit
Year: 9th, 10th
Term: 2 semesters
NCAA √
SCIENCE DEPARTMENT (cont.)

Adv. Ecology  
Course #4300  
This elective science course is open to all students and designed to provide an in-depth introduction to basic ecological concepts. Important concepts include food webs, energy flow, nutrient cycles, biomes, and natural resources such as soil, water, air, energy resources, pollution, and population dynamics. Inquiry-based laboratory experiments are included in the instruction in this course.

Credit: .5 credit  
Year:  11th, 12th  
Term:  1 semester  
NCAA √

Adv. Chemistry  
Course #4301  
Chemistry is a full year course designed to teach students the basic principles, concepts and theories of chemistry through experimentation, demonstration, problem-solving activities, lecture, and discussions. This course is designed for students planning to enter a four-year college. This course meets the graduation requirement for a unit of physical science.

Prerequisite:  Completion with a C or higher of/or concurrent with  
Adv. Algebra II or IIB. Sophomores must have completed Adv. Physical Science and Adv. or Honors Biology with a “B” or better and teacher recommendation  
Credit: 1 credit  
Year:  10th, 11th, 12th  
Term:  2 semesters  
NCAA √

Honors Chemistry  
Course #4302  
Honors Chemistry is a full year course designed to teach students the basic principles, concepts and theories of chemistry through experimentation, demonstration, problem solving activities, lecture and discussion. This course is designed for students planning to enter a four-year college or university. Students in Honors Chemistry will study many of the same principles as students in Advanced Chemistry, but with more depth analysis of topics and assessment. This course meets the graduation requirement for a unit of physical science.

Prerequisite:  Completion of/or concurrent with Honors Algebra II  
Sophomores must have completed Honors Physical Science and be scheduled for Honors Biology with a “B” or better and teacher recommendation  
Credit: 1 credit  
Year:  10th, 11th, 12th  
Term:  2 semesters  
NCAA √

AP Chemistry  
Course #4303  
The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students in this course should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. Laboratory experience will be equivalent to that of a typical college course. New topics include: redox reactions, chemistry kinetics, thermodynamics, and electrochemistry. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. This course meets the graduation requirement for a unit of physical science.

Prerequisite:  Adv./Honors Chemistry, with a “B” or better & teacher recommendation and successful completion of Algebra II  
Credit: 1 credit  
Year:  11th, 12th  
Term:  2 semesters  
NCAA √
SCIENCE DEPARTMENT (cont.)

Adv. Zoology  
Course #4304  
This elective science course is for those students with an interest in the animal kingdom. Topics in the course include anatomical and physiological adaptations, evolutionary history of animals, and their life histories.

Prerequisite:  Advanced/Honors Biology & Advanced/Honors Alg. I  
with “B” or above &  teacher recommendation

Year:  
11th, 12th

Credit: 1 credit
Term: 2 semesters
NCAA √

Honors Zoology  
Course #4305  
This honors level elective course is for those students with an in-depth interest in the animal kingdom. Topics in the course include anatomical and physiological adaptations, evolutionary history of animals, and their life histories. Students in Honors Zoology will study many of the same topics as students in Advanced Zoology but with more depth analysis of topics and assessment.

Prerequisite:  Honors Biology & Advanced Alg. I  
with “B” or above &  teacher recommendation

Year:  
11th, 12th

Credit: 1 credit
Term: 2 semesters
NCAA √

AP Biology  
Course #4306  
The Advanced Placement Biology program is designed for those students who wish to pursue a college-level biology program in order to secure college credit. Students will be preparing for the AP Biology exam in May. This accelerated class utilizes a college textbook; therefore, students must have good reading comprehension and study skills. Summer reading may be expected. The course will emphasize four broad areas: the cellular and molecular basis of life, the organization of living things, and populational biology. Labs will be performed enhancing these four areas. Since a thorough presentation of biology involves chemical concepts, students must have had a chemistry course. It is strongly recommended that students taking this class have first taken Anatomy & Physiology, Genetics or Zoology. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. This course meets the graduation requirement for a unit of biological science.

Prerequisite:  Honors Biology, Honors Chemistry, and  
Completion of a biology elective is recommended  
(Anatomy/Physiology, Genetics)

Year:  
11th, 12th

Credit: 1 credit
Term: 2 semesters
NCAA √

Adv. Animal Care and Conservation  
Course #4400  
This elective science course centers on a hands-on learning environment and provides students with information about the animals currently identified in the pet trade, their natural histories, and conservation efforts among other topics. Students who are taking or have passed Zoology are ineligible for this class.


Year:  
11th, 12th

Credit: .5 credit
Term: 1 semester
Adv. Astronomy
Course #4401
This elective science course is open to all 11th and 12th graders. It is intended to offer students an opportunity to experience an introduction to Astronomy. Students will have the opportunity to observe and become familiar with the various constellations and the different types of stars which make up these constellations, the planets in our own solar system and our own moon.

Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √

Adv. Geology
Course #4402
This elective science course is open to all 11th and 12th graders. It is intended to offer students an opportunity to experience an introduction to Geology. Students will study the earth through investigation of the changes that take place on, above, and in the earth. The study will include such topics as minerals, rocks, weathering, glaciers, caves, fossils, the geologic time periods, and map reading.

Year: 11th, 12th
Credit: .5 credit
Term: 1 semester
NCAA √

Adv. Physics
Course #4404
This course is designed to introduce the student to the physical concepts that provide the foundations for modern engineering and current technology. Topics include motion, forces, energy, machines, waves, sound, light and electricity. Students will learn to express the quantitative aspects of physics in mathematical equations. This course is strongly recommended for students interested in engineering, aerodynamics, density, pharmacy and research. This course meets the graduation requirement for a unit of physical science.

Prerequisite: Adv./Honors Algebra II (or co-requisite)
Year: 11th, 12th
Credit: 1 credit
Term: 2 semesters
NCAA √

AP Physics 1
Course #4405
This course provides students with an experience equivalent to a first-semester college course in algebra based physics. Topics include Newtonian mechanics, work, energy, power, mechanical waves, sound, and electric circuits. This class will be conducted primarily through inquiry based laboratory experiments and problem solving activities, reinforced with class discussion. AP Physics 1 requires a serious commitment from students and will require extensive work outside of class time. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. This course meets the graduation requirement for a unit of physical science.

Prerequisite: Adv./Honors Chemistry with a “B” or better
Adv. Pre-Calculus with a “B” or better or
Concurrent enrollment in Honors Pre-Calculus with “B” or above & teacher recommendation
Year: 11th, 12th
Credit: 1 credit
Term: 2 semesters
NCAA √
SCIENCE DEPARTMENT (cont.)

**Adv. Anatomy & Physiology**  
Course #4406  
This elective science course is designed for the student interested in understanding the structure and function of organs and tissues of the human body. This course is recommended for students considering biological and health-related careers such as medical doctor, nurse, and physical therapist. Activities include examinations of various types with microscopes, analysis of various physiologic concepts, and a **thorough** study of the anatomical structures.

**Prerequisite:** Advanced/Honors Biology with “B” or above & teacher recommendation  
**Credit:** 1 credit  
**Term:** 2 semesters  
**Year:** 11th, 12th  
**NCAA √**

**Honors Anatomy and Physiology**  
Course #4407  
This honors level elective science course is designed for the student interested in understanding the structure and function of organs and tissues of the human body. This course is recommended for students considering biological and health-related careers such as medical doctor, nurse, and physical therapist. Activities include examinations of various types with microscopes, analysis of various physiologic concepts, and a **thorough** study of the anatomical structures. Students in Honors Anatomy and Physiology will study many of the same topics as students in Advanced Anatomy and Physiology but with more depth analysis of topics and assessment.

**Prerequisite:** Honors Biology with “B” or above & teacher recommendation  
**Credit:** 1 credit  
**Term:** 2 semesters  
**Year:** 11th, 12th  
**NCAA √**

**Adv. Genetics**  
Course #4408  
This elective science course contains basic concepts of cell division, chromosomes, genes, and DNA structure. An emphasis will be placed on Mendelian genetics and problem solving. Mutations, populations, genetics and evolutionary genetics will also be discussed.

**Prerequisite:** Advanced/Honors Biology with “B” or above & teacher recommendation  
**Credit:** 1 credit  
**Term:** 2 semesters  
**Year:** 11th, 12th  
**NCAA √**

**Honors Genetics**  
Course #4409  
This honors level elective science course contains basic concepts of cell division, chromosomes, genes, and DNA structure. An emphasis will be placed on Mendelian genetics and problem solving. Mutations, populations, genetics and evolutionary genetics will also be discussed. Students enrolled in Genetics for honors credit will be responsible for the same topics as Genetics (Advanced), along with additional related concepts in most sections and rigorous tests and projects. Students in Honors Genetics will study many of the same topics as students in Advanced Genetics but with more depth analysis of topics and assessment.

**Prerequisite:** Honors Biology with “B” or above & teacher recommendation  
**Credit:** 1 credit  
**Term:** 2 semesters  
**Year:** 11th, 12th  
**NCAA √**
SOCIAL STUDIES DEPARTMENT

The State of Ohio requires students to earn a minimum of 3 Social Studies units for graduation (World History or its equivalent, American History, American Government). Students are required to take End of Course Exams after completion of American History and American Government. Students who are considering a four-year college program should check the admission requirements for their prospective institutions. Some colleges require additional social studies classes for certain programs.

Adv. Modern World History  
Modern World History is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for Modern World History. This course examines world events from 1600 to the present. It explores the impact of the democratic and industrial revolutions, the forces that led to world domination by European powers, the wars that changed empires, the ideas that led to independence movements, and the effects of global interdependence. Students will use historical thinking skills introduced in earlier grades to analyze primary and secondary sources from multiple perspectives to draw conclusions. These skills will be important to the success on future Ohio End of the Course exams in U.S. History and U.S. Government.

Prerequisite: None  
Year: 9th  
Credit: 1 credit  
Term: 2 semesters  
NCAA √

Honors Modern World History (CHS only)  
Modern World History is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for Modern World History. At the Honors level, students will be expected to participate in discussions, analyze primary sources, construct essays and complete outside readings to increase the depth of knowledge of world events from 1600 to the present. It explores the impact of the democratic and industrial revolutions, the forces that led to world domination by European powers, the wars that changed empires, the ideas that led to independence movements, and the effects of global interdependence. Students will use historical thinking skills introduced in earlier grades to analyze primary and secondary sources from multiple perspectives to draw conclusions. These skills will be important to the success on future Ohio End of the Course exams in U.S. History and U.S. Government.

Prerequisite: None  
Year: 9th  
Credit: 1 credit  
Term: 2 semesters  
NCAA √

AP World History (NWHS only)  
AP World History is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History, students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. to the present. Students develop and use the same skills practices and methods employed by historians; analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation and continuity and change over time; and developing historical arguments. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. This course meets the graduation requirement for World History. Attendance at the summer Pre-AP camp is mandatory for placement in this course.

Prerequisite: Teacher recommendation  
Year: 9th, 10th, 11th, 12th  
Credit: 1 credit  
Term: 2 semesters  
NCAA pending
AP Human Geography (CHS only)  
Course # 5120  
AP Human Geography is a course to introduce students to the systematic study of the patterns and processes that have shaped human understanding, use, and alteration of the Earth’s surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. This course meets the graduation requirement for World History. Attendance at the summer Pre-AP camp is mandatory for placement in this course.

Prerequisite: Teacher recommendation  
Year: 9th, 10th, 11th, 12th 
Credit: 1 credit  
Term: 2 semesters  
NCAA pending

Adv. American History  
Course #5201  
American History is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for American History. This course examines the history of the United States from 1877 to the present with an emphasis on historical documents. Topics covered will include industrialization, World Wars, the Great Depression, Cold War and Post-Cold War America. Students will examine how these events came to pass and their meaning for today’s citizens. Historical thinking skills introduced in earlier grades will be used to analyze primary and secondary sources from multiple perspectives to draw conclusions. These skills will be important to the success on the Ohio End of the Course exam in American History. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

Prerequisite: Adv. Modern World History  
Year: 10th 
Credit: 1 credit  
Term: 2 semesters  
NCAA √

Honors American History  
Course #5202  
American History is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for American History. At the Honors level students will be expected to participate in discussions, analyze primary/secondary sources, construct essays and complete outside readings to increase the depth of knowledge of events in the United States from 1877-present. This course examines the history of the United States from 1877 to the present with an emphasis on historical documents. Topics covered will include Industrialization, World Wars, the Great Depression, Cold War and Post-Cold War America. Students will examine how these events came to pass and their meaning for today’s citizens. Historical thinking skills introduced in earlier grades will be used to analyze primary and secondary sources from multiple perspectives to draw conclusions. These skills will be important to the success on the Ohio End of the Course exam in American History. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

Prerequisite: Adv./Honors Modern World History  
Year: 10th 
Credit: 1 credit  
Term: 2 semesters  
NCAA √
AP US History
AP U.S. History is designed to prepare students for the rigorous AP U.S. History exam. The students will explore American History from the Pre-Colonial Era (1491) to the present. The analysis of this time period will be largely expressed by students through their ability to create clear, concise, historical essays. Outside readings and research are extensive and are required. The emphasis of this course is for students to have curriculum and instructional experiences comparable to a college level course. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. AP U.S. History can be taken to fulfill the American History requirement or it can be taken as an elective course.

Prerequisite: Teacher Recommendation
Year: 10th, 11th, 12th

Adv. American Government
American Government is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for American Government. This course provides an opportunity for students to learn how the U.S. Government system functions and the role of citizens in our interdependent world. Topics covered will include Constitution/Amendments, structure and function of the federal government, role of the people, state and local governments, public policy and the economy. A unit on financial literacy is embedded within this course. Attention is given to developing student’s critical thinking skills including interpreting maps, charts and other statistical information. These skills will be important to the success on the Ohio End of the Course exam in American Government. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

Prerequisite: Adv./Honors U.S. History or AP U.S. History
Year: 11th

Honors American Government (CHS only)
American Government is a required course designed to prepare students for mastery of the Ohio Academic Content Standards for American Government. At the Honors level students will be expected to participate in discussions, analyze primary/secondary sources, construct essays and complete outside readings to increase the depth of knowledge of events in the United States Government. This course provides an opportunity for students to learn how the U.S. Government system functions and the role of citizens in our interdependent world. Topics covered will include Constitution/Amendments, structure and function of the federal government, role of the people, state and local governments, public policy and the economy. A unit on financial literacy is embedded within this course. Attention is given to developing student’s critical thinking skills including interpreting maps, charts and other statistical information. These skills will be important to the success on the Ohio End of the Course exam in American Government. This course is aligned with a required State End of Course Exam which counts toward a student’s cumulative graduation points.

Prerequisite: Adv./Honors Modern World & U.S. History
Year: 11th
AP US Government & Political Science  
Course # 5303  
AP U.S. Government and Politics is designed to prepare students for the rigorous AP U.S. Government and Politics exam. This course introduces students to key political ideas, policies, roles, and behaviors that characterize the United States governmental system. Financial literacy content is embedded within this course. Students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments. The emphasis of this course is for students to have curriculum and instructional experiences comparable to a college level course. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. AP U.S. Government and Politics can be taken to fulfill the American Government requirement.

**Prerequisite:**  Teacher Recommendation  
**Year:**  11th  
**Credit:**  1 credit  
**Term:**  2 semesters  
**NCAA** √

**SOCIAL STUDIES ELECTIVES**

**Adv. African American History**  
Course #5401  
This elective course is designed to thoroughly examine a variety of aspects regarding African-American contributions to American society. The experiences of the African American people have been a critical component throughout American History and in today’s society. This course offers a rich examination of the people and history of African Americans throughout our nation’s history.

**Prerequisite:**  None  
**Year:**  11th, 12th  
**Credit:**  .5 credit  
**Term:**  1 semester  
**NCAA** √

**Adv. Modern American Issues**  
Course #5402  
This elective course is designed to examine a wide variety of current events and contemporary issues and the way they impact our society. The focus of this course will be to analyze the effects of economics, politics, nature, and other topics that impact and inspire changes in society.

**Prerequisite:**  American Government*  
**Year:**  11th, 12th  
**Credit:**  .5 credit  
**Term:**  1 semester  
**NCAA** Pending

*Student can be concurrently enrolled in Am. Government

**Adv. Psychology**  
Course #5411  
This elective course focuses on the study of individual behavior and mental processes. The students will study individual and group behavior for the purpose of better understanding their own behavior and to increase their ability to relate well with others. Psychology topics include the study of the brain, abnormal behavior, intelligence, and personality.

**Prerequisite:**  Adv./Honors U.S. History  
**Year:**  11th, 12th  
**Credit:**  .5 credit  
**Term:**  1 semester  
**NCAA** Pending
SOCIAL STUDIES ELECTIVES (cont.)

Adv. Sociology  
Course #5410
This elective course focuses on the study of group behavior. The students will study individual and group behavior for the purpose of better understanding their own behavior and to increase their ability to relate well with others. Sociology topics include socialization, cultural development, social change, and gender roles.

Prerequisite: Adv./Honors U.S. History  
Year:  11th, 12th  
Credit:  .5 credit  
Term:  1 semester  
NCAA:  Pending

Adv. Economics  
Course #5405
This elective course provides students with the practical and theoretical knowledge that serves as a basis for economic decision-making. The students will study basic economic rules and micro- and macroeconomic concepts such as opportunity cost, economic systems, supply and demand, trade, and monetary and fiscal policy. Students will also learn about money, banking and investing, analyze the role of the United States government in the economy, and discuss the issues and challenges that face the American and global economies in the 21st century.

Prerequisite: Adv./Honors U.S. History  
Year:  11th, 12th  
Credit:  .5 credit  
Term:  1 semester  
NCAA:  √

Adv. Women in American History  
Course #5406
This course will focus on the social, political, and economic impact that women from all cultures have had on the growth, change, and development of the United States. The course will concentrate on the experiences of Caucasian, African American, and Native American women while acknowledging the lives of immigrant women who came to the United States looking for a better life. The course will be divided into units ranging from early and colonial experiences, to the role that women have played in American wars and conflicts, changes that women have brought to society, their contributions to our nation, and the evolution of the roles of females in the workplace.

Prerequisite: None  
Year:  11th, 12th  
Credit:  .5 credit  
Term:  1 semester  
NCAA:  √

AP European History  
Course #5407
This elective course is for students with a keen interest in European history. Students will demonstrate knowledge of basic chronology and of major events and trends from approximately 1450 to the Present. Students will develop an understanding of some of the principal themes in modern European history, an ability to analyze historical evidence and an ability to express historical understanding in writing. Outside research and readings are extensive and required. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring.

Prerequisite: Teacher Recommendation  
Year:  11th, 12th  
Credit:  1 credit  
Term:  2 semesters  
NCAA:  √
SOCIAL STUDIES ELECTIVES (cont.)

AP Psychology
Course #5408
This elective course is designed to prepare students for the AP Psychology test. The course involves an in-depth examination of psychology, the study of individual behavior and mental processes. Theorists, scientists, and practitioners are examined, as well as the brain, abnormal behavior, intelligence and personality, etc. The emphasis is for students to have curriculum and instructional experience comparable to college level courses. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring.

Prerequisite: Teacher Recommendation
Year: 11th, 12th
Credit: 1 credit
Term: 2 semesters
NCAA √
FOREIGN LANGUAGE DEPARTMENT
All foreign language courses are electives; however, four-year colleges, including the Ohio State college system, require a minimum of two or three years in the same language for admission. Many academic honors and award criteria require three years in the same language or two years in two languages.

Adv. Spanish I
Spanish I is designed to enable each student to attain and maintain proficiency in the language skills of listening, speaking, reading and writing within a minimum period of time. The language will be presented within the context of the Hispanic world and its culture. This course will make communication in Spanish relevant to the student's life.

Prerequisite: None
Year: 9th, 10th, 11th

Adv. Spanish II
This course enables the student to develop proficiency in the four skills of listening, speaking, reading and writing in a manner that makes language study a meaningful and enjoyable activity. It presents the language within the context of the contemporary Spanish speaking world and its cultures. The student will actively participate in the learning process through a variety of texts, audiotapes, workbooks and individualized activities and projects.

Prerequisite: Grade of C or higher in Adv. Spanish I
Year: 9th, 10th, 11th, 12th

Adv. Spanish III
This course will emphasize increased oral proficiency and aural comprehension. The student will continue to build upon the vocabulary, grammatical and linguistic skills studied in Spanish I and II. The student will also increase proficiency in reading comprehension. A variety of texts, audiotapes, workbooks, and individualized activities will be used.

Prerequisite: Grade of “C” or higher in Adv. Spanish II
Year: 10th, 11th, 12th

Honors Spanish IV
This course further develops the student's knowledge of the history, life and culture of the Spanish-speaking world through conversation, contemporary and literary readings, projects, and cultural experiences. The course offers an extensive review of grammatical structures. The student will actively participate in the learning process through a variety of literature, grammar, audiovisual, workbooks, individualized activities, and projects.

Prerequisite: Grade of “C” or higher in Adv. Spanish III
Year: 11th, 12th

AP Spanish
This course is open to selected academically advanced seniors who have excelled in their earlier Spanish preparation and who wish to take a course that is equivalent to third-year college Spanish. It encompasses the proficiency of advanced language skills in speaking, listening, reading and writing in the Spanish language. An intensive study of the Hispanic language and culture, and selected Hispanic literary works will drive the course content. Summer assignments may be required and comprise a portion of the first period assessment. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring.

Prerequisite: Grade of “B” or higher in Spanish IV
Year: 12th
FOREIGN LANGUAGE DEPARTMENT (cont.)

Adv. French I  
Course #1211
French I is designed to enable each student to develop proficiency in the language skills of listening, speaking, reading and writing within a minimum period of time. The language will be presented within the context of the contemporary French-speaking world and its culture. This course will make communication in French relevant to the student's life.

Prerequisite: None  
Credit: 1 credit  
Year: 9th, 10th, 11th  
Term: 2 semesters  
NCAA √

Adv. French II  
Course #1212
This course enables the student to attain proficiency in the four skills of listening, speaking, reading and writing in a manner that makes language study a meaningful and enjoyable activity. It presents the language within the context of the contemporary French-speaking world and its culture. The student will actively participate in the learning process through a variety of texts, audiovisual materials, workbooks and individualized activities and projects.

Prerequisite: Grade of “C” or higher in Adv. French I  
Credit: 1 credit  
Year: 9th, 10th, 11th, 12th  
Term: 2 semesters  
NCAA √

Adv. French III  
Course #1213
This course will introduce the student to French literature as well as further develop an appreciation of the French culture. The student will continue to build upon the vocabulary, grammatical and linguistic skills studied in French I and II. The student will increase proficiency in oral and written expression through a variety of texts, audiovisual materials, workbooks, and individualized activities and projects.

Prerequisite: Grade of “C” or higher in Adv. French II  
Credit: 1 credit  
Year: 10th, 11th, 12th  
Term: 2 semesters  
NCAA √

Honors French IV  
Course #1214
This course further develops students’ knowledge of the history, life and culture of the French-speaking world through conversation, contemporary and literary readings, projects, and cultural experiences. The course offers an extensive review of grammatical structures. Students will actively participate in the learning process through a variety of texts, audiovisual materials, workbooks, and individualized activities and projects.

Prerequisite: Grade of “C” or higher in Adv. French III  
Credit: 1 credit  
Year: 11th, 12th  
Term: 2 semesters  
NCAA √

AP French  
Course #1215
This course is open to selected academically advanced seniors who have excelled in their earlier French preparation and who wish to take a course that is equivalent to third-year college French. It encompasses the proficiency of advanced language skills in speaking, listening, reading and writing in the French language. An intensive study of the language, culture, and selected literary works will drive the course content based on the AP French themes. Summer assignments may be required and comprise a portion of the first period assessment. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring.

Prerequisite: Adv. French IV with a “B” or higher  
Credit: 1 credit  
Year: 12th  
Term: 2 semesters  
NCAA √
FOREIGN LANGUAGE DEPARTMENT (cont.)

Adv. American Sign Language I
American Sign Language is a visual language with its own unique rules of grammar and composition. Students enrolled should feel comfortable communicating with gestures and facial expressions. At this level the student is introduced to basic sign vocabulary, fingerspelling, and non-manual grammatical signals (NMGS) including mouthing, shoulder raising and head tilting. The use of the target language, with no talking, can be expected. An understanding of culture and identity of both the global and local Deaf community will be incorporated into this course.

**Prerequisite:** None

**Year:** 9th, 10th, 11th, 12th

**Credit:** 1 credit

**Term:** 2 semesters

**NCAA:** √

Adv. American Sign Language II
American Sign Language 2 continues to study ASL grammatical structure, vocabulary, fingerspelling, use of signing space, conversational regulators and focusing on the development of receptive and expressive sign skills. At this level, students enrolled should feel comfortable communicating in the target language without talking. An understanding of the Deaf community as a distinct culture with its own history and language will be incorporated into this course.

**Prerequisite:** Grade of “C” or higher in Adv. Am. Sign Lang. I

**Year:** 10th, 11th, 12th

**Credit:** 1 credit

**Term:** 2 semesters

**NCAA:** √

Adv. American Sign Language III
American Sign Language 3 continues to study ASL grammatical structure, vocabulary, fingerspelling, use of signing space, conversational regulators and focusing on the development of receptive and expressive sign skills. At this level, students enrolled should feel comfortable communicating in the target language without talking. An understanding of the Deaf community as a distinct culture with its own history and language will be incorporated into this course.

**Prerequisite:** Grade of “C” or higher in Adv. Am. Sign Lang. II

**Year:** 11th, 12th

**Credit:** 1 credit

**Term:** 2 semesters

**NCAA:** pending

**American Sign Language will fulfill the foreign language requirement for an honors diploma but may not fulfill admissions requirements for all colleges and universities.**
ART DEPARTMENT
All art classes are elective; however, most four-year colleges require at least one fine arts credit for admission. All of the classes listed in this section meet college admission requirements.

**Adv. Art Foundations**
Course #1001
Art I is the foundation course for Drawing, Painting and Ceramics. The student is introduced to studio skills, art history, art criticism and aesthetics. The student will discover, through creative/critical problem solving, how to make art, as well as, how to experience and appreciate art in preparation for his/her role as an informed member of the arts audience. Students will be required to supply some materials in addition to a lab fee.

Prerequisite: None  
Year: 9th, 10th, 11th, 12th  
Credit: .5 credit  
Term: 1 semester

**Adv. Drawing**
Course #1002
Drawing is an introduction to basic drawing skills with a focus on studio based art making where all students will develop their art making ability through creative/critical problem solving. Drawing includes mediums such as graphite, marker, pen/ink, colored pencil, charcoal, etc. as well as continued study in philosophies of art, art history, vocabulary and art making techniques. Students may be required to supply some materials in addition to a lab fee.

Prerequisite: Art Foundations  
Year: 9th, 10th, 11th, 12th  
Credit: .5 credit  
Term: 1 semester

**Adv. Painting**
Course #1008
Painting is an introduction to basic painting skills with a focus on studio based art making where all students will develop their art making ability through creative/critical problem solving. Painting includes mediums such as tempera paint, acrylic paint, watercolor, ink wash, etc. as well as continued study in philosophies of art, art history, vocabulary and art making techniques. Students may be required to supply some materials in addition to a lab fee.

Prerequisite: Art Foundations & Adv. Drawing  
Year: 10th, 11th, 12th  
Credit: .5 credit  
Term: 1 semester

**Adv. Ceramics and Sculpture (NWHS Only)**
Course #1009
Ceramics is an introduction to basic three dimensional art with a focus on studio based art making where all students will develop their art making ability through creative/critical problem solving. Ceramics and Sculpture includes mediums such as clay, plaster, found objects, wood, etc. as well as continued study in philosophies of art, art history, vocabulary and art making techniques. Students may be required to supply some materials in addition to the lab fee.

Prerequisite: Art Foundations  
Year: 9th, 10th, 11th, 12th  
Credit: .5 credit  
Term: 1 semester

**Adv. Drawing and Painting II**
Course #1003
Advanced Drawing and Painting is an upper level course to motivate and develop student’s art making ability through creative/ critical problem solving skills. Students will focus on developing higher level studio based skills in mediums such as graphite, pen/ink, colored pencils, acrylic paint, watercolor, ink wash etc. as well as continued study in philosophies of art, art history, and vocabulary. Students will be required to supply some materials in addition to a lab fee.

Prerequisite: Art Foundations, Adv. Drawing,  
Adv. Painting & teacher recommendation  
Year: 11th, 12th  
Credit: 1 credit  
Term: 2 semesters
ART DEPARTMENT (cont.)

Adv. 3D Design (CHS Only)

This course is designed to focus students’ creativity on three-dimensional art with an emphasis on ceramics. The elements and principles of design and three dimensional forms will be explored, as well as, the history, techniques and artists that work in three dimensional media. Students will be required to supply some materials in addition to a lab fee.

**Prerequisite:** Art Foundations, Adv Drawing & teacher recommendation

**Year:** 11th, 12th

**Credit:** 1 credit

**Term:** 2 semesters

Advanced Design (CHS Only)

Advanced Design is an advanced level course for motivated and experienced art students. Students will explore additional art mediums such as clay, plaster, wire & metal, sculpture, enameling, batiking, etching and/or silk painting. Emphasis is on creative problem solving within a studio-based environment. These advanced art explorations will allow the student to develop artwork for portfolios for post-graduate art degrees. Students will be required to supply some materials in addition to the lab fee.

**Prerequisite:** Art Foundations, Adv Drawing, Adv Painting & teacher recommendation

**Year:** 11th, 12th

**Credit:** 1 credit

**Term:** 2 semesters

Adv. Senior Studio

Adv. Senior Studio requires self-motivation and independent problem solving on behalf of the student. Originality of thought and techniques is encouraged through in-depth or breadth of art experiences depending upon the individual student. Students are primarily independent, using the teacher as a resource and critic. Aesthetic experiences, statements, and creative works of art are encouraged. Emphasis is on creative problem solving, perceptual awareness, and development of personal philosophy about art and its value to them. Continued experience with art history, criticism and aesthetics issues will prepare the students for their role as informed participants in the arts audience, as well as provide help in the development of portfolios for those interested in pursuing a career in Art. Students will be required to supply some materials in addition to a lab Fee for work on their portfolios.


**Year:** 12th

**Credit:** 1 credit

**Term:** 2 semesters

AP Studio Art: Drawing Portfolio

Studio Art is a fast paced challenging course for the student interested in pursuing a career path in art. Students will focus on advanced visual problem solving and must be self-motivated with excellent art skills. Students will address all sections of the portfolio as outlined by the AP College Board. Units in all four components of art: history, aesthetics, criticism and studio will be explored. Slides will be required for the portfolio submission, and then sent to the College Board for evaluation. All students who request acceptance in this class are required to take the Advanced Placement exam in the spring. Summer work is required.


**Year:** 12th

**Credit:** 1 credit

**Term:** 2 semesters

**Enrollment Criteria:** Entrance to this course requires teacher recommendation.
MUSIC DEPARTMENT

All music department courses are electives; however, most four-year colleges require at least one fine arts Credit for admission. All classes listed in this section will satisfy such a requirement. Most of the performing group programs require placement by the director. Students interested in these groups must contact the appropriate music director for an audition or placement. Taking one of these classes will satisfy the graduation requirements.

INSTRUMENTAL MUSIC

**Students assigned a district owned instrument will be assigned a $30.00 maintenance fee.**

Adv./Honors Concert Band

Course #1301 - Adv.
#1322 - Hon.

This is a wind and percussion ensemble designed for performance of band literature. This course has an Honors Option and may be taken for Honors level credit. This is a year-long course; performance participation outside of school hours is mandatory.

Prerequisite: Prior School Band Experience  
Credit: 1 credit  
Term: 2 semesters

Year: 9th, 10th, 11th, 12th

Adv./Honors Percussion Ensemble

Course #1302 – Adv.  
#1321 – Hon.

This is an ensemble open only to percussionists. All percussionists should sign up for this class. The ensemble will explore and perform a large variety of musical genres from around the world in groups of varying size. This course has an Honors Option and may be taken for Honors level credit. This is a year-long course; performance participation outside of school hours is mandatory.

Prerequisite: Prior School Band Experience  
Credit: 1 credit  
Term: 2 semesters

Year: 9th, 10th, 11th, 12th

Adv./Honors Jazz Band

Course #1303 – Adv.  
#1304 – Hon.

This instrumental music course is designed to allow students to explore and perform the unique American Jazz style. The students will study jazz idioms including big band, stage band and jazz combos. The students will learn about the development of improvisational techniques, the history of jazz, including Dixieland, and will perform as an integral part of the music department. This course has an Honors Option and may be taken for Honors level credit. This is a year-long course; performance participation outside of school hours is mandatory.

Prerequisite: Audition or placement by Director  
Credit: 1 credit  
Term: 2 semesters

Year: 9th, 10th, 11th, 12th

Adv./Honors Wind Symphony

Course #1305 – Adv.  
#1306 – Hon.

Wind Symphony is an advanced wind and brass ensemble designed for performance of advanced band literature. Opportunities may be provided for students to participate in contests sanctioned by the Ohio Music Educators Association. This ensemble is for woodwind and brass sections only. This course has an Honors Option and may be taken for Honors level credit. This is a year-long course; performance participation outside of school hours is mandatory.

Prerequisite: Audition or placement by Director  
Credit: 1 credit  
Term: 2 semesters

Year: 9th, 10th, 11th, 12th
MUSIC DEPARTMENT (cont.)

INSTRUMENTAL MUSIC (cont.)

**Students assigned a district owned instrument will be assigned a $30.00 maintenance fee.**

Adv./Honors Concert Orchestra

Course #1307 – Adv.
Course #1308 – Hon.

Orchestra is a string ensemble designed to develop skills, aesthetic and musical values through the performance of intermediate and advanced orchestra literature. Opportunity is provided for students to participate in large group, solo, and ensemble contests. This course has an Honors Option and may be taken for Honors level credit. Performance participation outside of school hours is mandatory.

Prerequisite: Membership in 8th grade strings program, audition or placement by Director
Credit: 1 credit
Term: 2 semesters
Year: 9th, 10th, 11th, 12th

Adv./Honors Chamber Orchestra (CHS ONLY)

Course #1309 – Adv.
Course #1310 – Hon.

This is an advanced orchestra designed to further develop advanced performance skills and techniques. The Chamber Orchestra performs for festivals, district concerts and other social engagements. Students will study music and music theory in greater depth. Students will perform with the full orchestral group and string orchestra, as well as in ensembles and the chamber music genre. This course has an Honors Option and may be taken for Honors level credit. Performance participation outside of school hours is mandatory.

Prerequisite: Audition or placement by Director
Credit: 1 credit
Term: 2 semesters
Year: 9th, 10th, 11th, 12th

VOCAL MUSIC

Adv. Women’s Ensemble

Course #1313

This is an all-female accelerated vocal ensemble designed for performance of advanced choral literature ranging from pop to classical, employing choreography when appropriate. Opportunity may be provided for students to participate in contests sanctioned by the Ohio Music Educators Association as well as other adjudicated events. Performance participation outside of school hours is mandatory.

Prerequisite: None
Credit: .5 credit
Term: 1 semester
Year: 9th, 10th, 11th, 12th

Adv. Mixed Ensemble I and II

Course #1314 - Ensemble I
Course #1330 - Ensemble II

Mixed Ensemble is a single semester, non-auditioned choir designed to develop a deeper understanding of the elements of music, as well as the vocal musicianship and sight reading skills required for participation in advanced choral groups. Emphasis is placed on developing good vocal tone, intonation and breath support. One performance outside of school hours may be required.

Prerequisite: None
Credit: .5 credit
Term: 1 semester
Year: 9th, 10th, 11th, 12th
MUSIC DEPARTMENT (cont.)

VOCAL MUSIC (cont.)

Adv./Honors Concert Choir

Concert Choir is an accelerated SATB vocal ensemble designed for performance of advance choral literature with a focus on acaPELLA singing. Opportunity may be provided for students to participate in contests sanctioned by the Ohio Music Education Association as well as other adjudicated events. This course has an Honors Option and may be taken for Honors level credit. Performance participation outside of school hours is mandatory.

Prerequisite: Vocal Music Director Recommendation
Year: 9th, 10th, 11th, 12th

Adv./Honors Show Choir

Show Choir is an elite competition show choir whose performances feature singing, dancing, backdrops, costume changes, and a live band. Participation will require after school rehearsals, one week attendance at choreography camp, competitions, and community events. Membership is based on auditions, consisting of vocal and dance segments, as well as personal interviews. Auditions are held each spring for the coming school Year. This course has an Honors Option and may be taken for Honors level Credit. Performance participation outside of school hours is mandatory.

Prerequisite: Audition
Year: 9th, 10th, 11th, 12th

Adv. Music Appreciation

This course develops the appreciation of music through listening to and studying the different styles of music from jazz to hip hop and rap. The class explores visual arts, music, dance, theatre and literature through the major movements, time periods, and cultures.

Prerequisite: None
Year: 9th, 10th, 11th, 12th

Adv. Music Theory

This course involves the study of harmony and basic musicianship. Topics taught include melody, rhythm, analysis, dictation, sight-singing, and form. It is designed for students who may be considering music studies beyond the high school level.

Prerequisite: School Music Experience
Year: 10th, 11th, 12th

Honors Music Theory

This is a comprehensive honors level course of study in harmony and basic musicianship. Topics taught include melody, rhythm, analysis, dictation, sight-singing, and form. It is designed for students who are considering music studies beyond the high school level.

Prerequisite: Teacher Recommendation
Year: 10th, 11th, 12th
HEALTH/PHYSICAL EDUCATION

In order to meet graduation requirements, the Health course must be successfully completed. All students are required to take Physical Education I and 1 additional Physical Education course to meet graduation requirements. Any student who, during high school, has participated in interscholastic athletics, marching band or cheerleading for at least two full seasons is not required to complete any physical education courses as a condition to graduate.

Adv. Health
This is a blended class that combines traditional and online teaching. Students will work on-line in the new Blended computer labs. Topics covered in this course include Making Healthy Decisions, Health Agencies, First Aid/CPR, Preventing Disease, Human Sexuality and Opioid Abuse Prevention.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .5 credit
Term: 1 semester

Adv. Physical Education I
Physical Education is a semester-long course designed to promote physical fitness and healthy living habits. It places an emphasis on activities that promote lifelong fitness and healthy living. This course is required for graduation.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .25 credit
Term: 1 semester

Adv. Physical Education II
This course is designed to introduce students to a wide variety of sports that they make take part in for life. Students will practice skills, participate in lead up games and play sports. Students will learn the basic terminology, rules, safety and history about each sport.

Prerequisite: Physical Education I
Year: 9th, 10th, 11th, 12th
Credit: .25 credit
Term: 1 semester

Adv. Strength Training and Conditioning
This semester-long course will offer students learning opportunities in the areas of strength and cardiovascular conditioning. The students will perform basic strength training exercises using free weights and nautilus machines. The students will learn proper techniques and spotting methods.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .25 credit
Term: 1 semester

Adv. Basketball Officiating
This semester-long course will afford the student the opportunity to develop and/or improve fundamental skills in basketball with emphasis on offensive and defensive strategies, while providing cardiovascular conditioning. The student will learn officiating of basketball. The main emphasis will be on basketball officiating and learning the three-man rotation, which is used at the high school and college level.

Prerequisite: None
Year: 9th, 10th, 11th, 12th
Credit: .25 credit
Term: 1 semester
HEALTH/PHYSICAL EDUCATION (cont.)

Adv. Fitness and Nutrition
This semester-long course is designed to advance the areas of fitness and nutrition. The students will learn muscular anatomy, physiology, and healthy nutrition, as well as learning to monitor their progress through goal setting, nutrition and fitness record keeping. Students will be expected to do outside class work.

**Prerequisite:** None

**Year:** 9th, 10th, 11th, 12th

**Course #1406**  
Credit: .25 credit  
Term: 1 semester

Adv. Strength Training and Conditioning II (CHS only)
This is a semester long class that is designed to service the needs of students that want to strength train and condition. This class will also be available for students that are serious about physical fitness. This is a high intensity class. Students will develop individualized fitness plans specific to their goals and will be expected to keep a detailed dietary journal. Activities include but are not limited to strength training, aerobic activities, anaerobic activities, flexibility training, plyometrics, and cardiovascular conditioning.

**Prerequisite:** Teacher recommendation

**Year:** 10th, 11th, 12th

**Course #1407**  
Credit: .25 credit  
Term: 1 semester
NON-CORE ELECTIVES

Adv. RISE I– Raising Individual Student Excellence (CHS ONLY)  Course #1601
The purpose of RISE is to encourage and support Colerain High School minority students who exhibit academic potential to enroll in Honors and Advanced Placement courses, with the ultimate goal of attending college. Students will: maintain acceptable grades in at least ONE Honors or Advanced Placement class, take part in weekly tutorial sessions, participate in critical reading, writing, and thinking activities, organize and maintain a binder for all academic coursework, take organized and detailed notes, attend college informational sessions presented by CHS and local Universities regarding course offerings and financial aid during school hours, and a designated number of sessions outside of school hours. Freshman, sophomore, junior, and senior students will attend multiple free ACT/SAT tutorials provided after school by CHS.

Prerequisite: Completion of requirements in application packet & interview process, with teacher recommendation
Credit: 1 credit
Term: 2 semesters
Year: 9th, 10th, 11th, 12th

Adv. RISE II (CHS ONLY)  Course #1602
This course is designed to prepare students for success in post-secondary education. RISE II will build on and continue the skills presented in RISE I, including critical reading and writing, collaborative discussion, tutorial inquiry study groups, preparation for college entrance and placement exams, study skills, test taking strategies, note taking and research. A strong emphasis will be placed on college and career readiness. Ample authentic learning opportunities will be offered through field trips to local college campuses, and collaboration with local college students and successful businessmen/women. Students will engage in higher levels of writing, inquiry, collaboration, reading, and reflection strategies than in RISE I to prepare them for the rigorous level of work they will experience in college. Technology integration is a major component of RISE II, and students will be expected to have access to the Internet outside of school.

Prerequisite: Completion of requirements in application packet & interview process, with teacher recommendation
Credit: 1 credit
Term: 2 semesters
Year: 10th, 11th, 12th

ACT Preparatory Course  Course #1604
This course will focus on preparing students to excel on the ACT tests offered for college admissions and high school graduation. It will assist in the development of test taking skills, academic vocabulary building, advanced mathematical concepts, college level reading and writing skills, and general logic and critical thinking.

Prerequisite: Eng I, Alg I
Credit: .5 credit
Term: 1 semesters
Year: 10th, 11th, 12th

Ohio End of Course (EOC) Assessment Remediation  Course #1705
This course is designed to review course content in preparation for retaking one or more of Ohio’s End of Course Assessments (ENG 1, ENG 2, ALG 1, GEO, BIO, AM. HIST, AM. GOV). Students enrolling in this course should have previously taken the EOC Assessment and scored at the Limited (1) or Basic (2) level. Students will be awarded a pass or fail grade upon completion of this course.

Prerequisite: Admin./Counselor Recommendation
Credit: .5 credit
Term: 1 semesters
Year: 11th, 12th
NON-CORE ELECTIVES (cont.)

Adv. School Leadership (FMP)  
Course #1801  
This course is designed for the mentors who will facilitate activities for the Freshmen Mentor Program. The course is designed to develop leadership skills, conflict-resolution skills, listening skills, and mentoring skills. This course is open to juniors and seniors who are interested in being mentors. An application process is required before electing to take this course. This class meets every day during fourth bell and then two mentors are assigned to each FMP during their fourth bell class. There are also two dates in the summer required of students for training for this role.

Prerequisite:  Students accepted through recommendation process  
Credit: 1 credit  
Year:  11th, 12th  
Term: 2 semesters

Adv. Service Learning  
Course #1802  
This elective course provides students with the opportunity to voluntarily serve in, with, and for community-based institutions (school, government, hospital, nursing home, day care center, business, police, etc.). Students will select their field-service placement in collaboration with the program coordinator. This course is designed to allow students to experience co-op experience and participate in community service opportunities that can positively affect their community. Students will be required to keep a reflective journal as part of this course.

Prerequisite:  None  
Credit: .5 credit  
Year:  11th, 12th  
Term: 1 semester

Adv. Student Technology Support and Innovation I  
Course #1805  
The Student Technology Support and Innovation course is a hands on study of technology in an educational context. Students will be required to troubleshoot, assess problems, and define the best approach to addressing or solving a problem. In addition to solving problems for students and teachers, students will be required to complete projects that integrates computers, digital media, or programming. The course also asks students to have prior understanding of Chrome OS, Microsoft Windows OS iOS and Android or be willing to learn these operating systems. This course seeks students who are self-motivated learners and use inquiry to drive their exploration and experiment in order to reach greater discovery. The application process begins in the spring with teacher recommendations and formal interviews.

Prerequisite:  Students accepted through recommendation and interview process  
Credit: 1 credit  
Year:  10th, 11th, 12th  
Term: 2 semesters

Adv. Student Technology Support and Innovation II  
Course #1806  
The Student Technology Support and Innovation course is a hands on study of technology in an educational context. Students will be required to troubleshoot, assess problems, and define the best approach to addressing or solving a problem. In addition to solving problems for students and teachers, students will be required to complete projects that integrates computers, digital media, or programming. The course also asks students to have prior understanding of Chrome OS, Microsoft Windows OS iOS and Android or be willing to learn these operating systems. This course seeks students who are self-motivated learners and use inquiry to drive their exploration and experiment in order to reach greater discovery. The application process begins in the spring with teacher recommendations and formal interviews.

Prerequisite:  Students accepted through recommendation and interview process and Adv. Student Technology Support and Innovation I  
Credit: 1 credit  
Year:  11th, 12th  
Term: 2 semesters
ACADEMIC SUPPORT PROGRAMS

Knowing that every student is not always immediately successful in their classes, NWLSD has progressive levels of academic intervention to help keep students on track for graduation and beyond. All courses listed are weighted at the Advanced Level.

Eagle’s Gate
Eagle’s Gate is an intervention program targeting those students who are two or more credits behind in their academic progress and who haven’t found success in the regular school setting. The program uses web-based lessons and assessments, and is staffed by a teacher who provides direct instruction and monitors the online courses. Academic course credit is awarded as earned.

**Prerequisite:** None
**Year:** 10th, 11th, 12th
**Credit:** varies
**Term:** 1 semester

Career Based Intervention (CBI) Co-Op - Butler Tech (CHS Only)
The Career Based Intervention Program is a career-technical program designed for students experiencing academic or economic challenges. The CBI Program is designed to help students improve academic competence, increase student attendance, transition to the next grade level, graduate from high school, and transition to a career-technical program related to personal interests and/or post-secondary opportunities. This program provides students an opportunity to meet their academic needs for graduation while allowing students to maintain approved employment and/or a service learning project. Students are enrolled in online core subject courses. Students also participate in a course that focuses on job and life-related issues during the morning hours. Students are selected based on need and recommendation of counselors, teachers and administrators. Students can earn elective credits for approved employment or volunteer activities in approved programs during the afternoon hours of school. Emphasis is placed on developing appropriate work habits, attitudes and employer-employee relationships. All students are expected to have transportation to and from their place of employment.

**Prerequisite:** 16 years of age, with recommendation from a counselor, teacher, or administrator
**Year:** 10th, 11th, 12th
**Credit:** Up to 4 credits per year
**Term:** 2 semesters

Gen. CBI Career Connections – Butler Tech
Each student in the CBI/CC program participates in a Career Connections class taught by a certified CBIP Coordinator. In the Career Connections class students examine and develop important real-world skills like exploring career opportunities, career outlooks, career skills and career aptitudes, as well as the theories behind successful interviewing, resume writing and development, personal health and wellness, and current and future technologies.

**Prerequisite:** None
**Year:** 9th, 10th, 11th, 12th
**Credit:** 1 credit
**Term:** 2 semesters
COLLEGE CREDIT PLUS (CCP) – ON NWLSD CAMPUSES

CCP English Composition I
Course # 6521
In English Composition I students learn reflective, analytical and argumentative writing strategies, incorporating sources and personal experience. Students will negotiate between public and private rhetorical situations and purposes to achieve academic literacy. They will write multiple drafts using a recursive writing process as they work toward fluency in style and mechanics. Sinclair Course Number ENG 1101 (3 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP English Composition II
Course # 6522
In English Composition II students build on the skills in English Composition I, develop rhetorical literacy through research, critical reading and multigenre writing tasks. Through major and minor, cumulative and stand-alone assignments, students construct arguments and analyses, ethically incorporating academic sources while developing their own voices as writers and citizens.. Sinclair Course Number ENG 1102 (3 credits)

Prerequisite: Acceptance by Sinclair and completion of ENG 1101
Credit: 1 credit

CCP College Algebra
Course # 6523
In College Algebra students will study polynomial, radical, rational, exponential and logarithmic functions and their graphs; roots of polynomial functions, rational and polynomial inequalities; systems of linear and nonlinear equations; matrices; and applications. Sinclair Course Number MAT 1470 (3 credits)

Prerequisite: Acceptance by Sinclair
Credit: .5 credit

CCP Trigonometry
Course # 6526
In trigonometry students will study trigonometric functions of angles, solving right and oblique triangles, identities, trigonometric and inverse trigonometric equations, vectors, radian measure, graphs of trigonometric functions and inverse trigonometric functions, conic sections, sequences, and series. Sinclair Course Number MAT 1570 (3 credits)

Prerequisite: Acceptance by Sinclair and completion of MAT 1470
Credit: .5 credit

CCP Pre-calculus
Course # 6524
In precalculus students will study polynomial, radical, rational, exponential and logarithmic functions and their graphs, roots of polynomial functions, rational and polynomial inequalities, conic sections, systems of linear equations; sequences and series. Trigonometric functions of angles, solving right and oblique triangles, trigonometric identities and equations, vectors, radian measure, graphs of trigonometric functions, inverse trigonometric functions and applications. Sinclair Course Number MAT 1580 (5 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP Calculus and Analytic Geometry
Course # 6525
In precalculus and analytic geometry students will study Cartesian coordinate system, functions, limits and continuity of functions, the derivative and its applications, the integral and the Fundamental Theorem of Calculus. Derivatives and integrals involving piecewise, polynomial, rational, algebraic, exponential, logarithmic, trigonometric, inverse trigonometric and hyperbolic functions and their inverses Sinclair Course Number MAT 2270 (5 credits)

Prerequisite: Acceptance by Sinclair and completion of MAT 1580
Credit: 1 credit
COLLEGE CREDIT PLUS (CCP) – ON NWLSD CAMPUSES (Cont.)

**CCP American Federal Government**
Course # 6534
In American Federal Government students will study American political system at the national level, including process of government; democratic theory and development of the U. S. Constitution; citizen participation through voting; interest groups and political parties; structure, functions and powers of legislative, executive and judicial branches; issues of civil liberties and equal rights. Sinclair Course Number PLS 1120 (3 credits)

**Prerequisite:** Acceptance by Sinclair

**Credit:** 1 credit

**CCP United States History I**
Course # 6536
In United States History I students will study the development of the people of the United States in political, social, economic, and cultural areas from pre-Columbian America through Reconstruction. Sinclair Course Number HIS 1101 (3 credits)

**Prerequisite:** Acceptance by Sinclair

**Credit:** 1 credit

**CCP United States History II**
Course # 6537
In United States History II students will study the development of the people of the United States in political, social, economic and cultural areas from Reconstruction to the present. Sinclair Course Number HIS 1102 (3 credits)

**Prerequisite:** Acceptance by Sinclair and completion of HIS 1101

**Credit:** 1 credit

**CCP Western Civilization I**
Course #6538
Major trends in the development of Western culture, emphasizing political, economic, social and cultural achievements, from prehistory to the seventeenth century. Sinclair Course Number HIS 1111 (3 credits)

**Prerequisite:** Acceptance by Sinclair

**Credit:** 1 credit

**CCP Western Civilization II**
Course #6539
Major trends in the development of Western culture, emphasizing political, economic, social and cultural achievements from the seventeenth century to the present. Sinclair Course Number HIS 1112 (3 credits)

**Prerequisite:** Acceptance by Sinclair and completion of HIS 1111

**Credit:** 1 credit

**CCP Ecology**
Course #6550
In Ecology students will study general concepts in ecology and application to current environmental issues. Focus on evolutionary ecology, populations, communities, ecosystems and global ecology. Field experiences and lab techniques emphasizing data collection, analysis and interpretation. Sinclair Course Number BIO 2225 (4 credits)

**Prerequisite:** Acceptance by Sinclair

**Credit:** 1 credit
COLLEGE CREDIT PLUS (CCP) – ON NWLSD CAMPUSES (Cont.)

CCP General Chemistry I
Course # 6528
General chemistry I is a university-parallel course in chemistry for the science major. The first half of a comprehensive first-year survey of chemistry. Topics include the basics of matter, atoms and molecules, chemical reactions, bonding, molecular geometry and gases. Students registering for this course should have previously taken high school chemistry or equivalent. Sinclair Course Number CHE 1211/1251 (5 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP General Chemistry II
Course # 6529
General chemistry II is the second half of a university-parallel course in chemistry for the science or engineering major. Topics include states of matter, solutions, chemical reaction kinetics, chemical equilibrium, acid/base chemistry, electrochemistry and nuclear chemistry. Students registering for this course should have previously taken high school chemistry or equivalent. Sinclair Course Number CHE 1221/1261 (5 credits)

Prerequisite: Acceptance by Sinclair and completion of CHE 1211/12551
Credit: 1 credit

CCP Environmental Geology
Course #6551
Environmental Geology is an introduction to minerals, rock cycle, Plate Tectonics. Use/misuse of natural resources, waste disposal, pollution. Analysis of natural hazards: floods, volcanism, earthquakes, mass wasting, and others. Consequences of human activities: population growth, sustainability; mitigation and remediation strategies and processes. Laboratory component stresses use of scientific method, critical thinking, and problem solving. Sinclair Course Number GLG 1401 (4 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP Introduction to Physics
Course #6549
Introduction to Physics is a survey of motion, forces, energy, thermodynamics, properties of matter, electricity and magnetism for non-science majors. Sinclair Course Number PHY 1100 (4 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP College Physics I
Course # 6530
College Physics I is an algebra-based university-parallel sequence in mechanics, including vectors, statics, work and energy, momentum, rotational motion, elasticity, fluids and thermodynamics. Sinclair Course Number PHY 1141 (4 credits)

Prerequisite: Acceptance by Sinclair
Credit: 1 credit

CCP College Physics II
Course # 6531
College Physics II is an algebra-based university-parallel course in oscillations, waves, sound, optics, electricity, magnetism and electromagnetism. Sinclair Course Number PHY 1142 (4 credits)

Prerequisite: Acceptance by Sinclair and completion of PHY 1141
Credit: 1 credit
COLLEGE CREDIT PLUS (CCP) – ON NWLSD CAMPUSES (Cont.)

CCP Elementary French I                                      Course # 6544
Elementary French I is a foundation for gaining basic knowledge of French grammar, speaking, writing, reading and cultural knowledge. This course is designed to be taken following the completion of French II and is considered a substitute for first semester of French III. FRE 1101 will be taken first semester and immediately followed by FRE 1102 in second semester of the same year. Summer assignments may be required and will make up a portion of the first quarter grade. Sinclair Course Number FRE 1101 (4 credits)

Prerequisite: Acceptance by Sinclair                              Credit: 1/2 credit

CCP Elementary French II                                      Course # 6545
Elementary French II is a continuation French grammar skills, verbs in the future conditional and subjunctive tenses, speaking, writing, reading and cultural knowledge. This course is designed to be taken following the completion of FRE 1101 and is considered a substitute for second semester of French III. Sinclair Course Number FRE 1102 (4 credits)

Prerequisite: Acceptance by Sinclair and have completed FRE 1101                Credit: 1/2 credit

CCP Intermediate French I                                      Course # 6546
Intermediate French I reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required. This course will follow the completion of FRE 1101 and FRE 1102 and is considered a substitute for first semester of French IV. FRE 2201 will be taken first semester and immediately followed by FRE 2202 in second semester. Summer assignments may be required and will make up a portion of the first quarter grade. Sinclair Course Number FRE 2201 (3 credits)

Prerequisite: Acceptance by Sinclair and have completed FRE 1101 & 1102                Credit: 1/2 credit

CCP Intermediate French II                                      Course # 6547
Intermediate French II continues to review and extend basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required. This course is designed to be taken following the completion of FRE 2201 and is considered a substitute for second semester of French IV. Sinclair Course Number FRE 2202 (3 credits)

Prerequisite: Acceptance by Sinclair and have completed FRE 1101, 1102 & 2201                Credit: 1/2 credit

CCP Elementary Spanish I                                      Course # 6540
Elementary Spanish I is a foundation for understanding, speaking, reading and writing Spanish. Work outside of class and/or in the language laboratory is required. This course is designed to be taken following the completion of Spanish II and is considered a substitute for first semester of Spanish III. SPA1101 will be taken first semester and immediately followed by SPA 1102 in second semester of the same year. Summer assignments may be required and will make up a portion of the first quarter grade. Sinclair Course Number SPA 1101 (4 credits)

Prerequisite: Acceptance by Sinclair                              Credit: 1/2 credit
COLLEGE CREDIT PLUS (CCP) – ON NWLSD CAMPUSES (Cont.)

CCP Elementary Spanish II
Elementary Spanish II is a continuation of the foundation for understanding, speaking, reading and writing Spanish. Work outside of class and/or in the language laboratory is required. This course is designed to be taken following the completion of SPA 1101 and is considered a substitute for second semester of SPA III. Sinclair Course Number SPA 1102 (4 credits)

Prerequisite: Acceptance by Sinclair and have completed SPA 1101
Credit: 1/2 credit

CCP Intermediate Spanish I
Intermediate Spanish I reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required. This course will follow the completion of SPA 1101 and SPA 1102 and is considered a substitute for first semester of Spanish IV. SPA 2201 will be taken first semester and immediately followed by SPA 2202 in second semester. Summer assignments may be required and will make up a portion of the first quarter grade. Sinclair Course Number SPA 2201 (3 credits)

Prerequisite: Acceptance by Sinclair and have completed SPA 1101 & 1102
Credit: 1/2 credit

CCP Intermediate Spanish II
Intermediate Spanish II reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required. This course is designed to be taken following the completion of SPA 2201 and is considered a substitute for second semester of Spanish IV. Sinclair Course Number SPA 2202 (3 credits)

Prerequisite: Acceptance by Sinclair and have completed SPA 1101, 1102 & 2201
Credit: 1 credit

Northwest Local School District is excited to announce an expansion of our on-campus CCP course offerings with Cincinnati State for the 2019-20 school year. Additional course offerings may be available during the student scheduling process. As with all CCP courses, offerings at each high school building are dependent upon teacher approval by the higher education partner.
Butler Tech Elective Offerings at Northwest & Colerain High School

**Highlights:** Butler Tech offers a wide variety of elective and introductory courses at both Colerain and Northwest High Schools. Courses are designed to give you a sampling of the full pathway programs we offer, while teaching valuable skills for life. Courses are one period a day, taken at your high school and provide foundational knowledge in the field or pathway. Some provide opportunities for college credit.

CAREER TECHNICAL PROGRAMMING at Colerain High School in the COLERAIN HIGH SCHOOL CAREER TECH CENTER (CCTC)

**Electives and Career Based Intervention (CCTC)**
- Contemporary Cuisine
- Baking & Pastry Arts
- Career & College Readiness & Beyond (College & Beyond)
- Human Growth and Development (Child Development)
- CBI Connections
- Career Connections/Co-Op
- Exploring Career Pathways
- Remodeling and Carpentry
- Business Foundations using Google Apps and Microsoft 360
- Marketing
- Personal Financial Management
- Business Management and Strategies
- Business Co-op

**Introduction Courses (CCTC)**
- Intro to Healthcare Sciences (Lifespan Development)
- Intro to Dental Assisting and Healthcare (Lifespan Development)
- Manufacturing Engineering (Engineering or Precision Machine Pathway)
- Information Technology (Intro to Programming and Software)
- Intro to Precision Machining
- Security and Protective Services (Intro to Criminal Justice)
- Intro to Construction
- Intro to Engineering and Robotics (9th grade only)
- Diesel Engine Technology (Intro to Commercial Truck/Diesel)

**Technical Preparation Programs (CCTC)**
- Dental Assisting Tech Prep
- HealthCare Sciences Tech Prep
- Programming and Software Development Tech Prep
- Criminal Justice Tech Prep
- Diesel Engine Tech Prep
- Engineering & Design Associate’s Degree
- Precision Machining Tech Prep

2 bells Junior and 3 bells Senior – 5 credits
2 bells Junior and 2 bells Senior – 4 credits
2 bells Junior and 2 bells Senior – 4 credits
2 bells Junior and 2 bells Senior – 4 credits
3 bells Junior and 2 bells Senior – 5 credits
3 bells Junior and 3 bells Senior – up to 12 credits
3 bells Junior and 2 bells Senior – 5 credits
**CAREER TECHNICAL PROGRAMMING @ NORTHWEST HS (NWHS) in the NORTHWEST HS CAREER TECH CENTER (NWCTC)**

### Electives and Career Based Intervention (NWHS/NWCTC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culinary Fundamentals</td>
<td>1 semester</td>
</tr>
<tr>
<td>Contemporary Cuisine</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Baking &amp; Pastry Arts</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Career &amp; College Readiness &amp; Beyond</td>
<td>(College &amp; Beyond) 1 semester</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>(Child Development) 1 semester</td>
</tr>
<tr>
<td>Intro to Interior Design</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Career Connections</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>CBIP/Co-Op</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Business Foundations using Google Apps and Microsoft 360</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Marketing</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Personal Financial Management</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Medical Terminology for Business</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Business Co-op</td>
<td>2 semesters (year)</td>
</tr>
</tbody>
</table>

### Introduction Courses (NWCTC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Construction</td>
<td>2 semesters (year)</td>
</tr>
<tr>
<td>Multi-Media Web Production</td>
<td>(Digital Media) 2 semesters (year)</td>
</tr>
<tr>
<td>Nutrition and Wellness</td>
<td>(Sports Medicine) 2 semesters (year)</td>
</tr>
<tr>
<td>Intro to Cosmetology</td>
<td>2 semesters (year) (10th grade only)</td>
</tr>
<tr>
<td>Financial Foundation</td>
<td>2 semesters (year)</td>
</tr>
</tbody>
</table>

### Technical Preparation Programs (NWCTC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors Financial Services Tech Prep</td>
<td>2 bells Junior and 2 bells Senior – 4 credits</td>
</tr>
<tr>
<td>Construction Tech Prep</td>
<td>2 bells Junior and 2 bells Senior – 4 credits</td>
</tr>
<tr>
<td>Digital Media Tech Prep</td>
<td>2 bells Junior and 2 bells Senior – 4 credits</td>
</tr>
<tr>
<td>Sports Medicine/Exercise Science Tech Prep</td>
<td>2 bells Junior and 2 bells Senior – 4 credits</td>
</tr>
<tr>
<td>Cosmetology Tech Prep</td>
<td>3 bells Junior and 3 bells Senior – 6 credits</td>
</tr>
<tr>
<td>Medical Administrative Specialist</td>
<td>1 bell Junior and 1 bell Senior - 2 credits</td>
</tr>
</tbody>
</table>
## College Credit Plus Offerings at NWCTC and CCTC

**Butler Tech – These courses are part of Butler Tech programs offered on site at CHS/NWHS**

<table>
<thead>
<tr>
<th>Location</th>
<th>Course Name</th>
<th>College</th>
<th>College Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colerain HS</td>
<td>CCP SC Principles of Engineering</td>
<td>Sinclair</td>
<td>MET 1241</td>
<td>2</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Software Tools for Engineering Tech</td>
<td>Sinclair</td>
<td>MET 1161</td>
<td>1</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Prep Math for Engineering</td>
<td>Sinclair</td>
<td>MET 1111</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Intro to Drafting and Design Using Inventor</td>
<td>Sinclair</td>
<td>MET 1231</td>
<td>4</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Fundamentals of Tooling and Machine</td>
<td>Sinclair</td>
<td>CAM 1109</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Statics</td>
<td>Sinclair</td>
<td>MET 2201</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Ethics for Engineering Technology</td>
<td>Sinclair</td>
<td>MET 2711</td>
<td>1</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Engineering Design and Development</td>
<td>Sinclair</td>
<td>MET 1281</td>
<td>2</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC SolidWorks Basics</td>
<td>Sinclair</td>
<td>MET 1301</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Materials Science</td>
<td>Sinclair</td>
<td>MET 2151</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Thermodynamics</td>
<td>Sinclair</td>
<td>MET 2101</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC CAD Concepts Using AutoCAD</td>
<td>Sinclair</td>
<td>MET 1371</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Strength of Materials</td>
<td>Sinclair</td>
<td>MET 2251</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Fluid Mechanics</td>
<td>Sinclair</td>
<td>MET 2301</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Dynamics</td>
<td>Sinclair</td>
<td>MET 2351</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP SC Machine Design</td>
<td>Sinclair</td>
<td>MET 2401</td>
<td>3</td>
</tr>
</tbody>
</table>

### Advanced Manufacturing

<table>
<thead>
<tr>
<th>Location</th>
<th>Course Name</th>
<th>College</th>
<th>College Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colerain HS</td>
<td>CCP CS Manufacturing Processes 1</td>
<td>Cincinnati State</td>
<td>MET 111</td>
<td>3</td>
</tr>
</tbody>
</table>

### Information Technology and Programming

<table>
<thead>
<tr>
<th>Location</th>
<th>Course Name</th>
<th>College</th>
<th>College Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colerain HS</td>
<td>CCP CS HTML WITH CSS &amp; JAVASCRIPT</td>
<td>Cincinnati State</td>
<td>IT 110</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP CS COMP PROG FOUNDATIONS</td>
<td>Cincinnati State</td>
<td>IT 100</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP CS Information Technology Concepts</td>
<td>Cincinnati State</td>
<td>IT 105</td>
<td>3</td>
</tr>
</tbody>
</table>

### Business and Finance

<table>
<thead>
<tr>
<th>Location</th>
<th>Course Name</th>
<th>College</th>
<th>College Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colerain HS</td>
<td>CCP CS Business Management</td>
<td>Cincinnati State</td>
<td>MGT101</td>
<td>3</td>
</tr>
<tr>
<td>Colerain HS</td>
<td>CCP CS Marketing</td>
<td>Cincinnati State</td>
<td>MKT101</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Entrepreneurship</td>
<td>Cincinnati State</td>
<td>MGT 120</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Financial Accounting</td>
<td>Cincinnati State</td>
<td>ACC 101</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Personal Finance</td>
<td>Cincinnati State</td>
<td>FIN 100</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Business Finance</td>
<td>Cincinnati State</td>
<td>FIN 150</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Business Management</td>
<td>Cincinnati State</td>
<td>MGT101</td>
<td>3</td>
</tr>
<tr>
<td>Northwest HS</td>
<td>CCP CS Marketing</td>
<td>Cincinnati State</td>
<td>MKT101</td>
<td>3</td>
</tr>
</tbody>
</table>
All students can benefit from Family and Consumer Sciences courses. The classes are designed to meet the needs of all different types of learners. Students will learn skills for managing individual and family needs, problem solving, setting goals, and leadership. Students will experience a variety of teaching techniques: small group activities, presentations, hands on projects, classroom discussions, labs, field trips, and community involvement. In each course all students are required to complete a final semester culminating course project. Through integrated classroom activities students will be given the opportunity to participate in Family, Career, and Community Leaders of America (FCCLA), a youth leadership organization. A $25.00 one-time fee will be assessed for students enrolling in one or multiple FCS courses.

**Culinary Fundamentals**
Course #6201 (NWHS ONLY)
Students will be introduced to basic cooking skills, learn proper knife skills, food nutrition, basic food science principles, and cooking techniques such as sauté, poach, braise, and roast. Safe food handling and equipment usage are also introduced. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

- **Prerequisite:** None
- **Credit:** .5 credit
- **Year:** 9th, 10th, 11th, 12th
- **Term:** 1 semester
- **Fee:** $25 (FCCLA)
- **Possible Industry Credentials Earned:** ServSafe

**Contemporary Cuisine**
Course #6202
Are you hooked on cooking shows or are you a future Culinary Arts student? Get in on the latest culinary trends, flavors and plate presentations! Learn about cooking principles, methods and nutrition management strategies. Examine food science in preparation, cooking and presentation of foods and beverages. Safe food handling and equipment usage are also covered. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

- **Prerequisite:** Culinary Fundamentals (@NWHS only)
- **Credit:** 1 credit
- **Year:** 9th, 10th, 11th, 12th
- **Term:** 2 semesters
- **Fee:** $25 (FCCLA)

**Baking & Pastry Arts**
Course #6228
Are you the next Cake Boss or are you hooked on Cupcake Wars? Then this is the class for you! Cake decorating, cookies, baking bread, French pastries, and other baking techniques await. Learn food science principles that will make your baking a success. Safe food handling and proper equipment usage are also covered. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

- **Prerequisite:** Culinary Fundamentals (@NWHS only)
- **Credit:** 1 credit
- **Year:** 10th, 11th, 12th
- **Term:** 2 semesters
- **Fee:** $25 (FCCLA)
- **Possible Industry Credentials Earned:** ServSafe
### CAREER TECHNICAL PROGRAMMING

#### FAMILY AND CONSUMER SCIENCE – Butler Tech (cont.)

**Career and College Readiness (Life after High School)  **
- **Course #6203**
- What’s your next step after high school? Explore career and education opportunities that reflect your interests, personality, and abilities. Develop and practice leadership, team building, and communication skills. Learn workplace-appropriate Netiquette, communication skills, and business dining etiquette. Entrepreneurship, personal financial wellness, and consumer protection issues are topics of the course. Students will go on college visits and have guest speakers from colleges available. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

<table>
<thead>
<tr>
<th>Prerequisite:</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year:</td>
<td>10th, 11th, 12th</td>
</tr>
<tr>
<td>Fee:</td>
<td>$25 (FCCLA)</td>
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<tr>
<td>Credit:</td>
<td>.5 credit</td>
</tr>
<tr>
<td>Term:</td>
<td>1 semester</td>
</tr>
</tbody>
</table>

**Human Growth and Development (Child Development)  **
- **Course #6204**
- You will examine an overview of human growth and development during all stages of life. Physical, cognitive, social, and emotional developmental milestones will be emphasized. Additional topics covered are human characteristics, genetic defects, parenting styles and responsibilities, and cultural differences within a family unit and community. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

<table>
<thead>
<tr>
<th>Prerequisite:</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year:</td>
<td>9th, 10th, 11th, 12th</td>
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<tr>
<td>Fee:</td>
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</tr>
<tr>
<td>Credit:</td>
<td>.5 credit</td>
</tr>
<tr>
<td>Term:</td>
<td>1 semester</td>
</tr>
</tbody>
</table>

**Intro to Interior Design  **
- **Course #6205 (NWHS ONLY)**
- Interior Design influences so many things in our homes – from the paint colors in the stores to the furniture we buy. This course introduces you to the principles and elements of design in residential spaces. Learn about the elements of design; selecting and organizing furnishings, floorings, and wall coverings; and how the functionality and psychology influence design choices. Career opportunities in the fields of textiles and design will also be explored. Students will have the opportunity to be involved in Family, Career and Community Leaders of America (FCCLA) state and national organization.

<table>
<thead>
<tr>
<th>Prerequisite:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Year:</td>
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<tr>
<td>Fee:</td>
<td>$25 (FCCLA)</td>
</tr>
<tr>
<td>Credit:</td>
<td>1 credit</td>
</tr>
<tr>
<td>Term:</td>
<td>2 semesters</td>
</tr>
</tbody>
</table>
INTRODUCTION PATHWAY COURSES
Introduction courses are designed to give students an opportunity to explore various career fields in greater detail. Though, not required prior to entrance into a “Tech Prep” program, the course provide an excellent preview of what is expected in the selected career field. In most cases, introduction courses are designed for 9th and 10th graders.

Gen. Financial Foundations
Financial Foundations is a year-long course that provides students with an introduction to the exciting world of finance. Students investigate the business environment, our economy, money management, and business law in a fast-paced, interactive atmosphere. Students explore economics through hands-on projects that put these ideas into practice. Students learn how to budget their money, save and invest, protect themselves with insurance, and use credit wisely. And students learn how to navigate the legal system and contract law. Students also develop computer skills in Microsoft Word, Excel, PowerPoint, and Publisher. This class is designed as an introduction to Honors Financial Services Tech Prep.

Prerequisite: None  
Credit: 1 credit
Year: 9th, 10th  
Term: 2 semesters
Fee: $20 (BPA)

Gen. Intro to Construction Tech
Students learn blueprint reading as it relates to the architecture and construction. Students will use scaling, orthographic projections, dimensioning practices, symbols, notations, and abbreviations to perform area calculations and to interpret floor plan, section, and elevations. Using construction plans, students will identify problems or shortcomings related to the layout and installation of materials for the project.

Prerequisite: None  
Credit: 1 credit
Year: 9th, 10th  
Term: 2 semesters
Fee: $15 (SkillsUSA)

Multi-Media Web Production
The focus of this course is on merging different types of media on the Internet. Students combine text, still photography, audio, videography and graphic arts to create interactive Web pages. They demonstrate creative, digital storytelling accessible from multiple platforms. Students learn project management and marketing. They learn how to create Web content that is accessible by individuals with visual disabilities.

Prerequisite: None  
Credit: 1 credit
Year: 9th, 10th (others considered if space available)  
Term: 2 semesters
Fee: $20 (BPA)

Gen. Nutrition and Wellness
Students will increase their knowledge of comprehensive health and wellness. Students will be able to identify the components of fitness and communicate the relationship between physical fitness, physical performance, injury prevention, and nutritional intake. Students will evaluate an individual’s state of nutrition based upon the impact of personal choices and social, scientific, psychological and environmental influences. Further, students will calculate an individual’s kilocalorie burn rate and recommend an ideal diet and physical fitness plan.

Prerequisite: None  
Credit: 1 credit
Year: 9th, 10th  
Term: 2 semesters
Fee: $35 (HOSA)
Gen. Exploring Career Pathways
Course #6341
Explore and shadow the many different Butler Tech Programs during this semester class! Through hands-on learning and local business involvement, students will engage in career-related experiences to acquire skills in various career fields. Designed to provide experiences to begin career decision making. Teachers have the flexibility to select career fields related to Ohio’s in-demand jobs represented in the community. Students will identify career interests and skills to develop an understanding of how personal characteristics can impact career choice. An overview of all 16 Ohio career fields will be provided. Students will create a preliminary career plan using online tools, such as OhioMeansJobs, and will begin to develop an understanding of 21st century skills.

Prerequisite: None
Year: 9th
Fee: None
Credit: .5 credit
Term: 1 semesters
CAREER TECHNICAL PROGRAMMING @ CHS - CCTC

**Gen. Intro to Healthcare Technologies**

Course #6302 (CCTC)
The class gives students a basic foundation on topics related to communication, careers in the health field with an emphasis on Health Care Careers, employability skills, safety, common illnesses and disorders, health care prevention, human life cycle, legal/ethical issues, medical terminology, direct patient care. Students will build knowledge through class discussion, personal reflection, medical and scientific fact, as well as hands on lab participation.

**Prerequisite:** None  
**Credit:** 1 credit  
**Year:** 9th, 10th  
**Term:** 2 semesters  
**Fee:** $35 (HOSA)

**Gen. Intro to Dental and Healthcare**

Course #6303 (CCTC)
The class gives students a basic foundation on topics related to communication, careers in the health field with an emphasis on Health Care Careers, employability skills, safety, common illnesses and disorders, health care prevention, human life cycle, legal/ethical issues, medical terminology, direct patient care. The Dental Assisting program prepares students to work with dentists and dental laboratories. The training consists of learning computer assisted office practices and procedures, patient preparation and comfort, chairside assisting procedures, and the use of laboratory materials and equipment.

**Prerequisite:** None  
**Credit:** 1 credit  
**Year:** 9th, 10th  
**Term:** 2 semesters  
**Fee:** $35 (HOSA)

**Gen. Manufacturing Engineering**

Course #6304 (CCTC) (Formerly – Intro to Precision Machining and Formerly Engineering Technologies)
This hands on, project based course is applied across manufacturing operations. Students will learn the basics of Computer Assisted Drafting (CAD) with Industry Level Software – Solidworks. Students will be able to demonstrate a broad array of technical skills with an emphasis on hand tools and machines such as: milling machines, band saw, etc. Projects include balloon cars, spaghetti bridges, egg-drop, straw and paper towers, washer game, CO2 dragster cars, 20 oz. water bottle rockets and 1/8 inch scaled houses to name a few. Safety will be stressed and quizzed on.

**Prerequisite:** None  
**Credit:** 1 credit  
**Year:** 9th, 10th  
**Term:** 2 semesters  
**Fee:** $15 (TSA)

**Gen. Information Technology (Intro to Programming and Software)**

Course #6305 (CCTC)
This first course in the IT career field is designed to provide students with a working knowledge of computer concepts and essential skills necessary for work and communication in today's society. Students will learn safety, security, and ethical issues in computing and social networking. Students will also learn about input/output systems, computer hardware and operating systems, and office applications.

**Prerequisite:** None  
**Credit:** 1 credit  
**Year:** 9th, 10th  
**Term:** 2 semesters  
**Fee:** $15 (BPA)
**CAREER TECHNICAL PROGRAMMING @ CHS - CTC**

**INTRODUCTION PATHWAY COURSES (cont.)**

<table>
<thead>
<tr>
<th>General Security and Protective Services (Intro to Criminal Justice)</th>
<th>Course #6306 (CCTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite:</strong> None</td>
<td><strong>Credit:</strong> 1 credit</td>
</tr>
<tr>
<td><strong>Year:</strong> 9&lt;sup&gt;th&lt;/sup&gt;, 10&lt;sup&gt;th&lt;/sup&gt;</td>
<td><strong>Term:</strong> 2 semesters</td>
</tr>
<tr>
<td><strong>Fee:</strong> $15 (Skills USA)</td>
<td></td>
</tr>
</tbody>
</table>

Private Security is an ever-expanding industry that requires trained professionals that can detect, deter, and investigate crime. The course focuses on private security measures used to protect lives, property, and proprietary information. Students completing the Ohio Peace Officer Training Academy Private Security curriculum provided by an approved instructor will be eligible to sit for the OPOTA certification exam as a private security guard.

<table>
<thead>
<tr>
<th>General Intro to Construction Technologies (Plan Reading)</th>
<th>Course #6207 (CCTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite:</strong> None</td>
<td><strong>Credit:</strong> 1 credit</td>
</tr>
<tr>
<td><strong>Year:</strong> 9&lt;sup&gt;th&lt;/sup&gt;, 10&lt;sup&gt;th&lt;/sup&gt;</td>
<td><strong>Term:</strong> 2 semesters</td>
</tr>
<tr>
<td><strong>Fee:</strong> $15 (TSA)</td>
<td></td>
</tr>
</tbody>
</table>

Learn skills which are valuable not only on the job, but also in everyday life. This semester course offers the student a great opportunity to explore a variety of careers in the construction field such as; carpentry, surveying, landscaping, bricklaying, drafting, roofing, cabinetmaking, construction management pre construction and design and electrical repair and maintenance. Learn to safely use hand and power tools, draft and read blue prints, and apply various construction techniques. This course is an excellent opportunity for students to explore the world of construction while at the same time increasing their skills with tools. Students in the program have the opportunity to join the Career Technical Student Organization known as SkillsUSA.

<table>
<thead>
<tr>
<th>General Remodeling and Carpentry</th>
<th>Course # 6232 (CCTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite:</strong> None</td>
<td><strong>Credit:</strong> 1 credit</td>
</tr>
<tr>
<td><strong>Year:</strong> 9&lt;sup&gt;th&lt;/sup&gt;, 10&lt;sup&gt;th&lt;/sup&gt;, 11&lt;sup&gt;th&lt;/sup&gt;, 12&lt;sup&gt;th&lt;/sup&gt;</td>
<td><strong>Term:</strong> 2 semesters</td>
</tr>
<tr>
<td><strong>Fee:</strong> $15 (TSA)</td>
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</table>

Welcome to HGTV Colerain!!! This course will introduce to students the materials, methods, and equipment used in carpentry and masonry industry. Students will organize a project work sequence by interpreting plans and diagrams within a construction drawing set. They will layout and install basic wall, floor and roof applications. Students will perform introductory concrete applications including formwork, reinforcement, mixing, and finishing.

<table>
<thead>
<tr>
<th>General Intro to Engineering &amp; Robotics</th>
<th>Course #6308 (CCTC – (9&lt;sup&gt;th&lt;/sup&gt; Grade Only))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite:</strong> None</td>
<td><strong>Credit:</strong> 1 credit</td>
</tr>
<tr>
<td><strong>Year:</strong> 9&lt;sup&gt;th&lt;/sup&gt;</td>
<td><strong>Term:</strong> 2 semesters</td>
</tr>
<tr>
<td><strong>Fee:</strong> None</td>
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</table>

This course will introduce students to fundamental engineering concepts and scientific principles associated with engineering design applications. Topics include mechanisms, energy, statics, materials, and kinematics. Additionally students will learn material properties and electrical, control and fluid power systems. Students will learn to apply problem solving, research and design skills to create solutions to engineering challenges.
Gen. Diesel Engine Technology  
Course #6309 (CCTC)
Introduction to Commercial Truck and Equipment is an entry level course that will give students an opportunity to become familiar with careers in the transportation industry. Students will be taught about a variety of ways technology can be used for transportation. Students will learn problem solving, critical thinking, leadership, teamwork, safety, health and environmental aspects, transportation fuels, and transportation systems technical skills sets for the commercial truck industry. Students in the program have the opportunity to join the Career Technical Student Organization known as SkillsUSA. *Students will be required to purchase appropriate safety equipment such as boots.

Prerequisite: None  
Year: 9th, 10th  
Fee: $15 (SkillsUSA)  
*cost based on purchase  
Credit: 1 credit  
Term: 2 semesters

Gen. Intro to Precision Machining  
Course #6340 (CCTC)
Introduction to Precision Machining is a yearlong course that provides an opportunity to learn the fundamentals of precision machining. Students will be exposed to milling, cutting, designing and manufacturing metal parts for fabrication.

Prerequisite: None  
Year: 9th, 10th  
Fee: $15 (SkillsUSA)  
Credit: 1 credit  
Term: 2 semesters

Gen. Exploring Career Pathways  
Course #6341
Explore and shadow the many different Butler Tech Programs during this semester class! Through hands-on learning and local business involvement, students will engage in career-related experiences to acquire skills in various career fields. Designed to provide experiences to begin career decision making. Teachers have the flexibility to select career fields related to Ohio’s in-demand jobs represented in the community. Students will identify career interests and skills to develop an understanding of how personal characteristics can impact career choice. An overview of all 16 Ohio career fields will be provided. Students will create a preliminary career plan using online tools, such as OhioMeansJobs, and will begin to develop an understanding of 21st century skills.

Prerequisite: None  
Year: 9th  
Fee: None  
Credit: .5 credit  
Term: 1 semesters
Butler Tech Junior-Senior Programs offered at Colerain and Northwest High Schools

Frequently Asked Questions

Where will my student’s diploma be from? When you complete all requirements for graduation, you will join us at graduation and graduate with a Colerain High School or Northwest High School Diploma.

Does taking a Butler Tech (BT) course/program impact my GPA negatively? No, it has no bearing on your GPA.

Can I still take CCP courses when I am a BT student? Yes, in fact many Butler Tech courses are CCP or CTAG college credit.

How much of my schedule is taken up from a BT program? If you take on-site Butler Tech program, typically 2 bells in your junior year and 2 bells in your senior year will make up your Butler Tech program.

What will my day look like? On-site, as a junior you will take your Butler Tech program courses 2nd and 3rd and academics the remaining periods. As a senior, you will take your Butler Tech courses in the afternoon.

Can I still participate in extracurriculars/sports at my high school? Yes, taking a Butler Tech program onsite or offsite does not impact this.

Do we have transportation to and from my BT program? Yes!

Will my transcript be affected by Butler Tech courses? No, your transcript will look the same as a full time NWLSD student.

Additional Off-Site FAQs

If school is cancelled at Northwest do I still have to report to Butler Tech? No, Northwest will not provide transportation if the school is closed for a snow day. Attendance at Butler Tech will be excused on those days.

If Northwest is on early release do I get picked up from Butler Tech early? Yes

Can I attend half day? No, students will spend the entire day there.

Can I attend only one year? They are all 2 year programs.

How can I apply? Got to: hsapplication.butlertech.org

When will I know if I got accepted to a Butler Tech program? Students will be notified in Mid-March by mail.
**Finance Pathway**

### College Credit

<table>
<thead>
<tr>
<th>Course</th>
<th>Industry Credential</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Semester Hours through Cincinnati State—CCP</td>
<td>Microsoft Certifications</td>
</tr>
</tbody>
</table>

**Program Highlights:** College-prep program for students who are looking for an exciting and challenging way to explore the world of business and finance. Students are able to discover what makes a company successful ... and learn how to start, finance, and grow their own business!

#### JUNIOR YEAR (Two Bells)

**Hon. Strategic Entrepreneurship**

Course #6210 (NWCTC)

Students will use innovation skills to generate ideas for new products and services, evaluate the feasibility of ideas, and develop a strategy for commercialization. They will use technology to select target markets, profile target customers, define the venture’s mission, and create business plans. Students will take initial steps to establish a business. Students will calculate and forecast costs, break-even, and sales. Establishing brand, setting prices, promoting products, and managing customer relationships will be emphasized.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

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**Hon. Financial Accounting**

Course #6211 (NWCTC)

Students will track, record, summarize, and report a business’s financial transactions. They will develop financial documents, project future income and expenses, and evaluate the accuracy of a business’s financial information. Students will also apply tools, strategies, and systems to evaluate a company’s financial performance and monitor the use of financial resources. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

- **Prerequisite:** 2.5 GPA, Passed Algebra I with a C or better; 11th grader 90% attendance rate
- **Year:** 11th
- **Fee:** $29 (BPA)

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**SENIOR YEAR (Two Bells)**

**Hon. Fundamentals of Financial Services**

Course #6212 (NWCTC)

Students will develop knowledge and skills needed in the banking, insurance and investment industries. They will analyze banking products and services, determine ways in which insurance reduces risk, and calculate insurable losses. Students will also learn to sell financial products and build positive relationships with clients and colleagues. They will use financial ratios to evaluate company performance and select profitable investments for clients.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

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**Hon. Corporate Finance**

Course #6213 (NWCTC)

Students will manage policy and strategy for corporate budgeting, investment, and financial planning. They will calculate profitability, predict business success and the likelihood of failure, and compare business performance within and across industries. Students will also develop and track the achievement of financial goals. They will determine how to balance risk with return and select strategies for recovering from risky situations and disasters. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

- **Prerequisite:** Strategic Entrepreneurship, passed Financial Accounting
- **Year:** 12th
- **Fee:** $29 (BPA)
**Business Pathway**

**Offered at Colerain High School and Northwest High School**

BT Business is designed much like a college business administration program. Students take approximately one course per year, beginning with an introduction to business. The program continues with courses in various business functions. Courses encourage students to become involved with business problems and concepts, which fosters enthusiasm and interest in the subject. Students utilize active learning strategies to solve business problems.

**Business Foundations using Google Apps and Microsoft 365**

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

Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.

**Prerequisite:** None

**Year:** 9th, 10th, 11th, 12th

**Fee:** $29 (BPA/DECA) Possible Industry Credentials Earned: Microsoft Office Specialist Word and/or Excel

**NORTHWEST ONLY:** Marketing Principles provides students a hands-on laboratory that integrates National Curriculum Standards in marketing, finance, hospitality or management. Through management and operation of a School Based Enterprise (SBE) the Northwest Knight School Spirit Shop, students are provided a realistic and practical learning experience that reinforces classroom instruction.

**Gen. Marketing**

This course introduces students to the specializations offered in Marketing (digital, sports and entertainment, hospitality and tourism). Students will obtain fundamental knowledge and skills in marketing communications, marketing management, marketing research, merchandising, promotion and professional selling. They will acquire knowledge of marketing strategies, market identification techniques, employability skills, business ethics and law, economic principles and international business. Technology, leadership and communications will be incorporated in classroom activities. Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.

**Course #6102**

**Prerequisite:** Gen. Introduction to Business

**Year:** 10th, 11th, 12th

**Fee:** $29 (BPA/DECA) Possible Industry Credentials Earned: RISE Up Customer Service and Sales

**College Credit**

| 9 Semester Hours Cincinnati State—CCP |

**Industry Credential**

Microsoft Certifications
Gen. Personal Financial Management  
Course #6103
Students will develop knowledge and skills in personal financial management, including financial services, insurance, budgeting, credit cards and borrowing, earning power, paychecks and taxes, securities and investments (types of stocks, nature of bonds, mutual funds), retirement, consumerism, business law and ethics. Students will learn to analyze financial statements (income statements and balance sheets), and understand the purpose of accounting in a business. They will calculate cash needs using the time value of money and track, record and summarize a business’s financial transactions will be addressed. Technology, employability skills, leadership and communications will be emphasized. Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.
Prerequisite:  Introduction to Business  
Credit: 1 credit
Year:  11th, 12th  
Term:  2 semesters
Fee:  $29 (BPA/DECA)

Medical Terminology for Business — Recommended grade level:  Junior  
Course #6106 (NW Only)
This course focuses on the development and use of a working medical vocabulary. Topics include medical terminology development, business relationships, compliance, and business practices. Students will use medical terminology for transcription, coding, and related medical management processes. Students will also focus on operation of a medical office and office-related skills.
Prerequisite:  Introduction to Business  
Credit: 1 credit
Year:  11th, 12th  
Term:  2 semesters
Fee:  $29 (BPA)
Pre Requisite:  Junior level; C+ in Bio and/or A& P, 2.5 GPA
Possible Industry Credential Earned:  AMCA Billing Coding Specialist,AMCA Electronic Health Records Certification

Gen. Business Management  
Course # 6104
Students will plan, actualize, and run a small business. They will define their business’s mission; develop the business’s vision, goals and objectives; and create a business plan. Students will also develop a budget and recruit, interview, select, hire, and manage employees. They will examine legal and ethical issues associated with management as well as management functions, levels and types. Project management technology, tools and processes will also be emphasized. Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.
COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State
Prerequisite:  Introduction to Business  
Credit: 1 credit
Year:  11th, 12th  
Term:  2 semesters
Fee:  $29 (BPA/DECA)

Gen. Entrepreneurship  
Course #6107 (CHS Only)
Students will use innovation skills to generate ideas for new products and services, evaluate the feasibility of ideas, and develop a strategy for commercialization. They will use technology to select target markets, profile target customers, define the venture’s mission, and create business plans. Students will take initial steps to establish a business. Students will calculate and forecast costs, break-even, and sales. Establishing brand, setting prices, promoting products, and managing customer relationships will be emphasized. Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.
COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State
Prerequisite:  Introduction to Business  
Credit: 1 credit
Year:  11th, 12th  
Term:  2 semesters
Fee:  $29 (BPA/DECA)
Gen. Business Co-op  
Course# 6004
This course is designed to provide students with advanced instruction to further develop their skills in a professional environment. Students will have an opportunity to explore a career in the business industry and implement the principles addressed throughout the business courses. Students will have the opportunity to participate in DECA or Business Professionals of America (BPA); business and marketing career tech student organizations.
Prerequisite: Must be currently enrolled in a Business course  
Credit: 1-3 credits
Year: 11th, 12th  
Term: 2 semesters
Fee: $29 (BPA/DECA)
JUNIOR YEAR (Two Bells)

**Gen. Construction - Core Sustainable Construction**
Course #6214 (NWCTC)
Students will learn principles in basic safety (10-hr OSHA), construction math, hand and power tool are and operation, blueprint reading, material handling, communication and employability skills. An emphasis will be placed on safe and green construction practices.

**Gen. Structural Systems**
Course #6215 (NWCTC)
Students will learn procedures and techniques required for layout and framing of walls and ceilings, including roughing-in door and window openings, constructing corners and partitions; bracing walls and ceilings; and applying sheathing.
Students will learn methods of roof, cold formed steel, and wood stair framing. Students will learn site and personal safety, material properties, design procedures, and code requirements for structural systems.

**Prerequisite:** 2.0 GPA, Passed Algebra I with a C or better; 11th grader 90% attendance rate

**Year:** 11th

**Fee:** $100 for student tool kits approximate depending on supplier and $32 (SkillsUSA)

SENIOR YEAR (Two Bells)

**Gen. Structural Coverings and Finishes**
Course #6216 (NWCTC)
This course will address applications of interior and exterior finish work. Students will identify material properties and select for appropriate application. Students will install thermal and moisture protection including roofing, siding, fascia and soffits, gutters, and louvers. Students will install drywall; trim-joinery and molding and apply wall, floor and ceiling coverings and finishes. Throughout the course, the safe handling of materials, personal safety, prevention of accidents and the mitigation of hazards are emphasized.

**Gen. Remodeling and Renovation**
Course #6217 (NWCTC)
Students will apply structural and mechanical skills to remodeling and renovations. In addition, students will learn the process of securing the required building permits, the management of subcontractors, and the coordination of formal building inspections. Students will troubleshoot design or logistics issues and provide possible solutions. Throughout the course, the safe handling of materials, personal safety, prevention of accidents and the mitigation of hazards are emphasized.

**Prerequisite:** Construction - Core Sustainable Construction, 12th grader Structural Systems

**Year:** 12th

**Fee:** $32 (SkillsUSA)

Possible Industry Credentials Earned: NCCER Core and Level 1, OSHA 10
JUNIOR YEAR (Two Bells)

Gen. Recording Arts  
Course #6218 (NWCTC)

Sound is essential to broadcast journalism and advertising. Students compare and contrast how sound alone and sound combined with visuals can entertain, inform and initiate action. They generate content, record, edit, mix and produce voice and music for airwaves, podcast and/or Internet. They adapt for analog and digital audio while adhering to Federal Communication Commission rules and regulations related to bandwidth and advertising.

Gen. Video Production  
Course #6219 (NWCTC)

This course focuses on video production for commercial use. Students plan and coordinate work with clients to produce projects on a tight timeline. They learn how to read and interpret a script, select and maintain equipment and combine graphics, text and special effects. Skills attained include pre-production documentation and planning; in-production audio and video recording; and post-production editing and distribution.

Prerequisite: 2.0 GPA, Passed Algebra I with a C or better; 11th grader 90% attendance rate  
Year: 11th  
Credit: 2 Credits – 11th  
Term: 2 semesters  
Fee: $29 (BPA)

SENIOR YEAR (Two Bells)

Gen. Entertainment Business  
Course #6220 (NWCTC)

A growing number of professionals make a living in industries related to arts and communications. From event management to tracking expenses, students learn the business side of visual, media and performing arts. Topics include marketing, branding, producing, promoting, booking, budgeting and merchandising, etc. Students learn and apply intellectual property rights, licensing, copyright, royalties, liabilities and contractual agreements. They learn how both profit and non-profit organizations businesses operate.

Gen. Digital Broadcasting  
Course #6221 (NWCTC)

This course focuses on video broadcast for the journalism industry. Skills attained include interviewing, image capture, color manipulation, audio and video blend, lighting and editing. Students critique news broadcasts and research content. They plan and shoot video for live and recorded use in a specific time slot while adhering to laws related to defamation, libel, copyright and privacy.

Prerequisite: Recording Arts  
Year: 12th  
Credit: 2 Credits – 12th  
Term: 2 semesters  
Fee: $29 (BPA)
JUNIOR YEAR (Two Bells)

**Gen. Medical Terminology**

This course focuses on the applications of the rules for constructing and defining medical terms with an emphasis on building a working medical vocabulary. Topics include using the appropriate abbreviations and symbols for anatomical, physiological and pathological classifications and the associated medical specialties and procedures. Students will decipher medical terms by identifying and using word elements with an emphasis on derivation, meaning, and pronunciation. This course includes the option for articulated college credit with a qualifying score on the end of course assessment.

**Course #6222 (NWCTC)**

**Prerequisite:** 2.0 GPA, Passed Algebra I with a C or better; 90% attendance rate

**Year:** 11th

**Credit:** 2 Credits – 11th grader

**Term:** 2 semesters

**Fee:** $35 (HOSA)

**Gen. Athletic Injuries and Prevention**

Students will identify signs and symptoms of injury and apply emergency procedures and techniques used in the immediate care of athletic-related trauma. Students will learn clinical and field evaluative processes, injury prevention techniques, conditioning techniques, treatment, taping, bracing, and rehabilitation of musculoskeletal injuries and conditions. Students will design and implement conditioning programs, including nutritional considerations and ergogenic aids. Emphasis is placed on the synthesis of information gathered through injury history, observation, and manual muscle testing.

**Course #6223 (NWCTC)**

**Prerequisite:** Medical Terminology

**Credit:** 2 Credits – 11th grader

**Term:** 2 semesters

**Year:** 12th

**Fee:** $35 (HOSA)

SENIOR YEAR (Two Bells)

**Gen. Fitness Evaluation and Assessment**

Students will complete comprehensive fitness evaluations and develop individualized training programs. Students will administer lab and field tests of cardiovascular endurance, body composition, joint flexibility and muscular strength, power, and endurance. Emphasis is placed on assessing body composition, neuromuscular flexibility, agility, balance, coordination, and proprioception. Additionally, students will identify components of physical fitness and communicate how physical activity impact health and wellness. This course includes the option for articulated college credit with a qualifying score on the end of course assessment.

**Course #6224 (NWCTC)**

**Prerequisite:** Medical Terminology

**Credit:** 2 Credits – 12th grader

**Term:** 2 semesters

**Year:** 12th

**Fee:** $35 (HOSA)

Possible Industry Credentials Earned: AMCA Physical Therapy Aid Certification
# Human Services Pathway

<table>
<thead>
<tr>
<th>College Credit</th>
<th>Industry Credential</th>
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</thead>
<tbody>
<tr>
<td>Articulated with Sinclair Community College</td>
<td>State Board of Cosmetology—License of Cosmetology (12 points)</td>
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</tbody>
</table>

**Program Highlights:** Become a Licensed Professional Cosmetologist while still in high school! This hands-on program teaches students all aspects of Cosmetology: Hair, Skin, Nails and Makeup Application. Students run a full-service salon senior year.

## JUNIOR YEAR (Three Bells)

### Gen. Microbiology and Infection Control
Course #6226 (NWCTC)

Students will learn basic bacteriology, infection control, and salon safety practices. Students will be able to recognize infectious disorders and contagious diseases, learn the dispensary requirements, product storage, and requirements of the laws and rules, which regulate the cosmetology industry in Ohio.

### Gen. Trichology
Course #6229 (NWCTC)

Students will learn the anatomy of the head and scalp, structure of the hair, and various techniques and procedures for analyzing hair, scalp disorders, and diseases. Students will be able to determine hair porosity, elasticity, density, texture, and growth patterns as well as conduct chemical tests for treated hair and ability to recommend corrective scalp procedures.

Prerequisite: 2.0 GPA, Passed Algebra I and Biology with a C or better; Grader 90% attendance rate

<table>
<thead>
<tr>
<th>Credit</th>
<th>Term</th>
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<tbody>
<tr>
<td>3 Credits</td>
<td>2 semesters</td>
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</tbody>
</table>

Year: 11th

Fee: $250.00 for student kit (Costs are approximate paid directly to supplier) $32 (SkillsUSA)

## SENIOR YEAR (Three Bells)

### Gen. Advanced Hair Cutting and Styling
Course #6227 (NWCTC)

Students will learn advanced cutting and formal styling using specialized equipment and techniques. This course offers enhanced training in current trends and razor techniques.

### Gen. Advanced Chemical Services
Course #6230 (NWCTC)

Students will learn advanced chemical services using specialized products and techniques. Students will do advanced coloring, dimensional coloring, corrective techniques, texturizing, and advanced chemical wave wrapping techniques.

### Gen. Human Services Capstone
Course #6231 (NWCTC)

The capstone course provides opportunities for students to apply knowledge, attitudes, and skills that were learned in the Cosmetology program in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.

Prerequisite: All Coursework for Cosmetology Junior and Chemistry

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<tbody>
<tr>
<td>3 Credits</td>
<td>2 semesters</td>
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</tbody>
</table>

Year: 12th

Fee: $150.00 for student kit (Costs are approximate paid directly to supplier) $32 (SkillsUSA)

Possible Industry Credentials Earned: Ohio Board Certified Cosmotologist
Dental Assisting Pathway

College Credit
Articulated with Sinclair Community College

Industry Credential
Dental Assistant Radiographer’s Certificate; 1st Aid/CPR (12 points)

Program Highlights: Students are career ready upon graduation. Students wanting to pursue post-secondary studies will have an excellent foundation in the dental field. Students work in a hands on environment and become certified before graduation.

Gen. Dental Technology #6312 (CCTC)
Students gain knowledge of dental history, professionalism and dental specialties, disinfection and sterilization, disease transmission and infection control, head and neck anatomy with a focus on the oral cavity and teeth. They will study bone structure, cosmetic dentistry, and tooth identification and numbering systems. Students gain knowledge of chemical and physical properties of dental materials, their indications for use, and proper manipulation of the materials.

Gen. Medical and Dental Office Technology Course #6311 (CCTC)
Students will apply fundamental principles of communication, leadership, technology and management as it applies to the medical/dental office setting. Students will demonstrate documentation and record keeping procedures set forth by national accrediting organizations, billing and insurance, payment plans, treatment plans and appointment setting.
Prerequisite: 2.0 GPA, Passed Algebra I with a C or better; 90% attendance rate
Credit: 2 Credits – 11th grader
Term: 2 semesters
Year: 11th
Fee: $35 (HOSA)

SENIOR YEAR (Three Bells)

Oral Diagnosis and Treatment Planning Course #6310 (CCTC)
Students will demonstrate knowledge and skills associated with the practice of dentistry. Topics include principles of dental procedures and comprehensive dental care; infection control in dentistry; and dental specialties including radiology and laboratory procedures. Students will perform chair-side assisting techniques including instrument sterilization, fluoride applications, dietary analysis, and assisting dentists. Emphasis is given to terminology, instruments and equipment, and patient communication.

Gen. Dental Radiography Course #6313 (CCTC)
Students will perform procedures to expose, process, and interpret dental radiographs. Students will apply knowledge of radiation physics, infection prevention and quality control standards that are appropriate to the clinical setting. Students will apply effective communication skills for interacting with diverse patient populations and proper procedure documentation according to business and industry standards.

Gen. Dental Sciences Capstone Course #6338 (CCTC)
The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Health Sciences program in a more comprehensive and authentic way. Capstones often include project/problem based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.
Prerequisite: Gen. Medical and Dental Office Tech. Medical and Dental Office Technology
Credit: 2 Credits – 12th grader
Term: 2 semesters
Year: 12th
Fee: $35 (HOSA)
Possible Industry Credentials Earned: State Of Ohio Dental Assisting, Radiographers Certificate
Health Pathway

College Credit
Articulated with Sinclair Community College

Industry Credential
State Tested Nursing Assistant (12 points)

Program Highlights: This program provides a vast curriculum that gives excellent foundational knowledge for students interested in any area of healthcare. Students complete 80 hours of training to become a STNA before they graduate!

JUNIOR YEAR (Two Bells)

Gen. Patient Centered Care
Course #6314 (CCTC)
Students will apply psychomotor nursing skills needed to assist individuals in meeting basic human needs. Students will implement interventions following a nursing assistant plan of care. Students will collect patient's vital signs including temperature, pulse rate, respiration rate, and blood pressure. Students will perform phlebotomy procedures with emphasis on infection prevention, universal precautions, proper patient identification, specimen acquisition, handling, and processing. Additionally, students will observe patients' physical, mental, and emotional conditions and document any change. Students will explore a wide range of health care delivery systems and the vast opportunities for employment in the health care industry. Students gain further understanding of the content by participating in the career tech organization, HOSA. This is a junior level course in the Health Technology Program. Students must successfully complete this course in order to advance to their senior level in the Health Tech Program.

Gen. Health Science and Technology
Course #6315 (CCTC)
This course provides students an overview of the opportunities available in the healthcare industry. Students will learn fundamental skills in effective and safe patient care that can be applied across a person's lifespan. They will also be introduced to exercise science and sports medicine, the field of biomedical research and the importance of managing health information.

Prerequisite:
2.0 GPA, Passed Algebra I with a C or better; grader 90% attendance rate

Year: 11th

Credit: 2 Credits – 11th
Term: 2 semesters
Fee: $35 (HOSA)

SENIOR YEAR (2 Bells)

Gen. Principles of Allied Health
Course #6316 (CCTC)
Students will apply knowledge and clinical skills necessary to assess, plan, provide, and evaluate care to patients in varied healthcare settings. Students will apply first aid principles and techniques needed for response to choking, cardiopulmonary resuscitation, and other life-threatening emergencies. Emphasis will be placed on regulatory compliance, patient safety, pathophysiology, and medical interventions. Additionally, this course introduces psychomotor skills needed to assist individuals in meeting basic human needs.

Gen. Patient Centered Care and Diagnostics
Course #6317 (CCTC)
Students will build on the knowledge and skills acquired from courses taken their junior year. Focus will be placed on recognizing normal changes throughout the life span and common diseases found in the aging population. In addition, students learn the legal and ethical principles needed to function within the scope of practice. Students gain further understanding of the content by participating in the career tech organization, HOSA. Upon successful completion of this course students will have the opportunity to take the state test to become a State Tested Nursing Assistant (STNA).

Pre-requisite Courses: Patient Centered Care, Health Science and Technology.

Prerequisite: Patient Centered Care and Health Science and Tech

Year: 12th

Credit: 2 Credits
Term: 2 semesters
Fee: $35 (HOSA)

Possible Industry Credential Earned: STNA License
Information Technology Pathway

### College Credit

**12 CCP & CTAG credits available with Cin. State**

### Industry Credential

**HTML, CSS, JavaScript, PHP, and SQL (no points by ODE)**

### Program Highlights:

Students learn to create video games, interactive websites and program applications. Program provides an excellent foundation to go into the IT field by providing college courses at the high school level at no cost to the student!

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**JUNIOR YEAR (Two Bells)**

**Gen. Visual Programming**

Course #6318 (CCTC)

Students will create event-driven programs using object oriented programming techniques for use in web based and standalone applications. Students will map out, design, and test computer applications, web applications, and mobile applications. Both commercial and open source programs and applications will be used. Students can earn 3 CTAG college credits for this course.

**Gen. Web Design**

Course #6319 (CCTC)

Students will learn the dynamics of the Web environment while pursuing an in-depth study of both Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). Web based protocols such as FTP, TCP/IP, and HTTP will be addressed. Students will create a website with tag text elements, special characters, lines, graphics, hypertext links, and graphical tables.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

**Prerequisite:** 2.0 GPA, Passed Algebra I with a C or better; 90% attendance rate

**Year:** 11th

**Fee:** $29

**SENIOR YEAR (Two Bells)**

**Gen. Programming**

Course #6320 (CCTC)

In this course, students will learn the basics of building simple interactive applications. Students will learn the basic units of logic: sequence, selection, and loop. Students will apply algorithmic solutions to problem-domain scenarios. Students will gain experience in using commercial and open source languages, programs, and applications.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

**Gen. Object Oriented Programming**

Course #6321 (CCTC)

Students will learn to represent programming concepts as "objects" that have data fields and associated procedures known as methods. Students will implement classes such as support static, instance method, inheritance, polymorphism, exception handling, and object serialization. A variety of commercial and open source programs and applications will be used, including Java and C++.

**COLLEGE CREDIT: CCP 3 Semester Hours at Cincinnati State**

**Prerequisite:** Visual Programming, Web Design

**Year:** 12th

**Fee:** $29
**Law & Public Safety Pathway**

**College Credit**

| 9 Sem Hours Sinclair CC and 3 Sem Hours CTAG | 2 Credits – 11th | Term: 2 semesters |

| **Program Highlights:** | Students will be trained on Crime Scene Investigation and Forensic Evidence Processing. Students visit Butler Tech police academy where they will participate in the shooting scenario simulators and driving simulators. At the end of two years, students will have a broad knowledge of all areas of law enforcement and the Criminal Justice system. |

**JUNIOR YEAR (Two Bells)**

### Gen. The American Criminal Justice System

- **Course #6322 (CCTC)**
  - This first course in the Criminal Justice pathway traces the history, organization, and functions of local, state, and federal law enforcement. Students will study criminal behavior and apply constitutional and criminal law to crime and punishment. Students will learn law enforcement terminology, classifications and elements of crime, and how various court systems are used to judge and punish offenders.

**Gen. Correctional System and Services**

- **Course #6323 (CCTC)**
  - The correctional Officer plays a critical role in the Criminal justice System. In this course students will learn institutional rehabilitation and community correction strategies that prepare them for work in a correctional setting. The student will learn the role and responsibilities of a correctional Officer including processing in mates, maintaining security in a correctional setting and understanding inmate mental health needs.

**Prerequisite:**

- 2.0 GPA, Passed Algebra I with a C or better; 11th grader 90% attendance rate
  - Credit: 2 Credits
  - Term: 2 semesters

**Fee:** $32

**SENIOR YEAR (Two Bells)**

### Gen. Police Work and Practice in Public Safety

- **Course #6324 (CCTC)**
  - In this course, students will learn the skills necessary to prevent, detect and react to crime. Students will learn self-defense and subject control techniques, methods to conduct patrols, surveillance, and traffic procedures. Students will understand the ethical and legal responsibilities of police officers on patrol. Additionally, students will learn the operations of police and emergency telecommunication systems.

### Gen. Investigations and Forensics in Criminal Investigations

- **Course #6325 (CCTC)**
  - Forensic Science uses a structured and scientific approach to the investigation of crimes including assault, abuse and neglect, domestic violence, accidental death and homicide. Students will learn the psychology of criminal behavior and apply it to investigative procedures. Students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis.

**Possible Industry Credentials Earned:** NIMS 100,200,700,800,
## JUNIOR YEAR (Three Bells)

### Gen. Truck Diesel Engines
Course #6329 (CCTC)

Students will inspect, diagnose, and repair diesel truck engines. Students will learn the principles of valve train assemblies, lubrication, intake, exhaust and fuel systems. Additionally, skill development in engine testing, inspection and repair of electronic fuel management systems are emphasized. Students will break down and assemble heavy truck engines and supporting systems.

### Gen. Truck Braking, Suspension, and Steering Systems
Course #6328 (CCTC)

Students perform inspections, troubleshoot malfunctions, and service truck undercarriage systems. Students identify poor performing air brake systems and replace malfunctioning components. Students will install leaf springs, shock absorbers and air suspension components. Students inspect and replace truck steering components and replace wheel bearings. Additionally, students will perform wheel alignment and tire inspections, diagnostics, and repair. Identifying workplace risk factors associated with repetitive motion and lifting, operating, and moving of a heavy object is emphasized.

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### SENIOR YEAR (Two Bells)

### Gen. Ground Transportation Maintenance
Course #6326 (CCTC)

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

### Gen. Ground Transportation Electrical/Electronics
Course #6327 (CCTC)

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

| Prerequisite: | Ground Transportation Maintenance  
Ground Transportation Electrical/Electronics |
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Engineering Pathway

College Credit
55 Semester Hours – CCP

Industry Credential
CSWA - Certified SolidWorks Associate; ACU - Autodesk

Certified User

Program Highlights: Earn an Associate Applied Science Degree in Mechanical Engineering Technology - Enter the Mechatronics Manufacturing Program through FESTO/Sinclair. Design, build, and compete in international robotics competition!

JUNIOR YEAR (Three Bells)
CCP Engineering Design
Learn the Engineering Design Process. Topics include work-processes, optimization methods, design optimization, and risk management tools. Use 2D and 3D modeling software to design solutions to solve proposed problems, document work, and communicate solutions. Interpret industry prints, and create working drawings from functional models.

CCP Engineering Principles
Development of student understanding of the engineering and engineering technology fields through applied math, science and technology principles. Introduction into the applied learning of mechanics, strength of materials, free body diagrams and forces.

CCP Computer Integrated Manufacturing
An introduction to the manufacturing processes used in the tooling and machining industry. This course will cover machine safety, mechanical hardware, hand tools, metrology, engine lathe, and milling. Setup and operation of computer numerical control (CNC) milling machines.

Prerequisite: 3.0 GPA; Passed Algebra I; Credit: up to 6 Credits
At least 90% attendance rate Term: 2 semesters
Year: 11th Fee: No Fee

SENIOR YEAR (Three Bells)
CCP Mechanisms and Drives
Learn the principles and practices of machine operation and machine applications. Learn how machine components such as gears, belts, sprockets, bearings, clutches, couplings, springs, etc. contribute to the application for which the machine is designed. Examine the basic drives of such mechanisms as electric motors and fluid power actuators.

CCP Robotics
Apply knowledge and skills necessary to program and operate robots, using programmable controllers as the main interface point. Students will learn robotic operations, implement sensors for intelligent systems. Code, compile, and debug programs using various robotic programming languages.

CCP Engineering Capstone
Assessment of achievement by Mechanical Engineering Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized.

Prerequisite: Completed all Junior Engineering Courses Credit: up to 6 Credits
Year: 12th Term: 2 semesters Fee: No Fee
JUNIOR YEAR (Three Bells)

Gen. Machine Tools
Course #6334 (CCTC)
This course introduces students to all aspects of machining applications in manufacturing. They will be able to perform routine calculations, interpret basic drawings, begin the process of performing accurate measurements and be able to plan simple machining processes. Students will learn the fundamental principles and practices of cutting, drilling and grinding using modern machine tools, hand tools and precision measuring instruments.

Gen. Machining with Industrial Milling Machines
Course #6335 (CCTC)
In this course, students are directed in the safe use of manual milling machines. Students apply their knowledge of product characteristics, perform necessary calculations, and use precision measuring instruments and layout equipment to mill products to print dimensions. Students will use these machine tools to shape, cut, drill and bore metal and other materials. Students will be able to identify operational problems and provide routine care and maintenance to the manual mill.

Prerequisite: 2.0 GPA, Passed Algebra I with a C or better; 90% attendance rate
Year: 11th
Fee: $32

SENIOR YEAR (Two Bells)

Gen. Machining with Industrial Lathes
Course #6336 (CCTC)
This course directs the student in the safe use of different types of manual industrial lathes. Students will use these machine tools to shape, pattern, bore, thread and polish metal and other materials. Students will apply their knowledge of product characteristics, perform necessary calculations, use precision measuring instruments and make all adjustments needed to fabricate products to print dimensions. Students will be able to identify operational problems and provide routine care and maintenance to the lathe.

Gen. Computer Numerical Control Technology with Industrial Mills and Lathes
Course #6337 (CCTC)
In this course, students will use computer numerical control (CNC) programming to mill products comprised of various materials. Students will prepare numerical control programs in positioning systems using standard industrial G and M codes. They will program computerized numerical control mills and lathes.

Prerequisite: Machine Tools
Machining with Industrial Milling Machines
Year: 12th
Fee: $32
Possible Industry Credentials Earned: Pre-Aprenticeship, NIMS Manufacturing Level 1
BUTLER TECH PROGRAMS AT OTHER CAMPUSES

10th Grade Academy
Butler Tech 10th Grade Academy is a year-long program for sophomores who performed well in elementary and middle school, but now need a boost to renew their passion for learning in high school. The program bridges the gap between “what” and “why” in connecting how high school academics can impact learning and earning potential in the future.

Students will apply their core academics using STEM (science, technology, engineering, and math) principles to sharpen their skills and gain a deeper understanding of their subject matter. By visiting Butler Tech’s many career labs, students will also experience first-hand how STEM principles are used in a variety of career settings.

Students completing the Butler Tech 10th Grade Academy should develop:
- A practical understanding of how school relates to future careers
- Improved skills in critical thinking and teamwork
- A new thirst for education and self-improvement
- A plan for what to do after high school graduation.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

Auto Collision
Do you find it easy to understand how the different parts of a car are built and have an interest in how a car body is put together? If so, a career in Auto Collision may be for you.

Students in this program will learn to straighten, repair, align and restore auto body components to their original shape and dimensions as well as estimate the cost of repairs. Duties may include parts replacement, straightening damaged body panels, welding, auto glass replacement, auto frame straightening, and damage analysis, estimating repair costs and refinishing damage.

Butler Tech Auto Collision Technology provides students with the knowledge and skills needed for careers in automotive dealerships and independent collision repair shops. Eventually, our students will have the ability to start their own business, work as adjusters for insurance companies, become factory representatives for industry suppliers or continue their education at a two- or four-year college.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

Automotive Technology
Because computers have made today's cars highly complex, the role of the automotive technician has become highly technical. Butler Tech Automotive Technology will teach you how modern technology is used to make cars run efficiently and with high quality. The need for quality-minded people to design, build and repair these vehicles of the future is, and will continue to be, in high demand.

Students will have the opportunity to blend the basic concepts of engines, electric circuits, computer technology and customer relations into today's professional, highly trained, automotive technician. Our two-year program gives students exposure to electrical, steering and suspension, brakes, and engine performance, along with power trains, HVAC and drive trains as time permits.

With these skills, you can continue into a two- or four-year college through one of the Tech-Prep programs we offer or start as an entry level technician right out of high school. Some students qualify to work with a mentor in an automotive dealership. This program is accredited by the National Automotive Technicians Education Foundation.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)
Biomedical Science

Biomedical Science is a Project Lead the Way (PLTW) program designed to stimulate interest in STEM (science, technology, engineering and math) subjects. Students in PLTW Biomedical Science will learn about diseases, forensics, DNA and how medical devices and advances in bioengineering are changing the face of healthcare. All students receive First Aid/CPR certification in their junior year. Students also have the opportunity to receive additional certifications such as a Pharmacy Technician if chosen as a capstone course. Most students in this program advance their education at a two- or four-year college upon graduation. UC Health West Chester Hospital and local biomedical companies offer the opportunity for students to job shadow or complete internships. Courses include: Principles of Biomedical Science, Human Body Systems, Medical Terminology, Medical Interventions, Biomedical Innovations.

Location: Butler Tech West Chester Campus (Bioscience Building)

Commercial Arts

The Commercial Arts program is for students who thrive in a creative and artistic environment — and who strive to be ready for college. Students will receive hands-on, basic art and design training, balanced with instruction in the most popular graphic computer programs used by today's professional designers.

Students work in a professional level studio with a Mac computer and up-to-date graphics software. They will learn a variety of drawing, sketching and rendering techniques. Color theory and color palette usage are also covered. They will create projects that build on the elements and principles of design using the Adobe Creative Suite. These include: advertisements, book covers, logos, magazine articles, package design and poster design.

New to the program is an AP 2D Studio design. Students are given the option to have their portfolios judged for possible college credit. Photoshop and Illustrator give students tremendous artistic power to create images with visual impact. Second-year students are assigned client-based projects, which give them vital real-world experience.

Eighty percent of our students go on to attend a two- or four-year art college. Upon completion of the program, each student will have a college-ready portfolio, focusing on best works. This gives a creative advantage over traditional high school students, and many of our students have been awarded scholarships based on the quality of their portfolios.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

Construction

Build your future in the ever-growing field of construction. Civil engineering, construction management, site coordination, material handling and independent contracting are just a few of the career opportunities available to those with carpentry skills. In Butler Tech Construction, students will hands-on experience by building and framing complete structures right in the classroom.

Some of the topics covered are: basic safety, construction math, introduction to hand and power tools, introduction to blueprints, basic rigging, floor systems, wall systems, roof framing, windows and doors, reading site plans and elevations, concrete and reinforcing materials, foundations and flatwork, concrete forms, manufactured forms, framing with metal studs, drywall installation and finishing, cabinet installation and interior door installation.

After Graduation students may enter directly into the career field or continue their education. Students who continue onto college will do so already possessing two years’ experience, and possible NCCER certification, putting them ahead of their peers. Students who complete the two-year program may also enter an apprenticeship program with two years of service time.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

Cosmetology

Cosmetology is both a science and an art. Students are trained to provide services on clients' hair, skin and nails to aid them in enhancing their appearance.
This program emphasizes hands-on learning. Students will work with specific tools, equipment and products associated with cosmetology. They will gain practical experience in a lab setting by performing hair, skin and nail services first on manikins, and then on other students.

The program looks and runs like an actual salon. In the senior year, students provide services to the public through appointments at The Salon, which prepares them to directly enter the real world of cosmetology. This program qualifies and requires students to take the State Board of Cosmetology exam to become a licensed cosmetologist.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

**Criminal Justice**
Are you someone who would put yourself in harm's way to help a stranger? In the Butler Tech Criminal Justice program, you will cover many areas of study to help you prepare for the wide variety of careers in the criminal justice field. And you will learn from the most experienced teachers: certified and commissioned police officers.

Junior year, you will learn the following subjects: arrest and search, report writing, court procedures, writing traffic citations, crime scene, civil disorder, surveillance, gangs, vehicle patrol, foot patrol, CPR/AED and gambling laws.

Senior year program includes the following topics: child abuse, prisoner booking, ethics and professionalism, forensic science, private security, Ohio Revised codes, riot control, communication, chemical agents, polygraph, bombs and explosives, arson, collecting evidence, line-ups and juvenile justice.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

**Culinary Arts**
Express your creativity in the world of fine food through the Culinary Arts program. Skills like menu planning and design, nutrition, food preparation and service, sanitation, safety, inventory control and calculation of food quantities are all topics that will be taught in this career-driven program.

Students enrolled in the program operate Cafe Lee, a practice restaurant, on the D. Russel Lee campus. Health and safety regulations require that a uniform be worn while in the culinary lab. A uniform consists of a standard chef’s coat, checkered chef's pants, closed-toe shoes and a chef's hat. Students will also purchase a professional knife kit.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

**Dance**
Students pursuing Dance at the School of the Arts will explore different styles of dance, including jazz, tap, musical theatre, lyrical, partnering and hip hop. They will participate in strength and flexibility training and learn about the careers and influence of notable dancers and choreographers.

Required courses include Dance and Business of Arts and Communications. Other choices include: Choreography; Acting Performance; Acting and Script Analysis; Costuming and Makeup; Musical Concepts; Musical Engineering; Musical Ensemble and Composition.

Location: Butler Tech Fairfield Township Campus (School of the Arts Building)

**Dental Science**
Dental Science program prepares students to work with dentists and in dental laboratories. The training consists of learning computer assisted office practices and procedures, patient preparation and comfort, chair side assisting procedures and the use of laboratory materials and equipment.

All students receive First Aid/CPR certification in their junior year and their Dental Radiography certification as a senior. Additionally, students complete the required coursework to sit for the Certified Ohio Dental Assistant (CODA) exam at the end of their senior year if they qualify.

Local dental offices provide opportunities for students to job shadow or intern to gain valuable knowledge and experience in the field.
Location: Butler Tech West Chester Campus (Bioscience Building)

Digital Media
Digital Media offers students a creative outlet centered in professional electronic media production. Students learn skills that help enhance their creativity in becoming young professionals in the expanding digital media field. During this two-year program, students develop the professional skills required to be effective directors, performers, writers, videographer, photographers, audio producers, video/audio editors, advertising executives and many other professions available in media production.

Digital Media is the first step to a post-secondary career path or moving into the rewarding field of media production as an employee or small business owner. Become part of Digital Media where our motto is “Don’t Change…Grow!”

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

Equine Science
Would you like to work with horses on a daily basis? The Equine Science Program puts real-life learning to use. Students work with horses through riding, training and providing regular health checks. These learning opportunities are all tied to the two-year program goals. Students will learn responsible equine management principles and routine husbandry practices, business management and legal compliance. When they complete the program, our students will have an understanding of the equine anatomy and be able to describe the physiology and function in its biological systems.

For the 20 horses on our campus, students will apply knowledge of health and nutrition when designing preventive health care plans, breeding plans and feed management programs. Safe handling, grooming, training, equipment selection/maintenance/use and emergency care techniques are developed and applied on a daily basis.

Students will evaluate responsible stewardship practices and develop production management strategies that emphasize the industry’s goals through good reproductive decision-making.

Finally, students will develop business leadership and communication skills critical to the application knowledge gained in the equine field. No riding or horse experience is necessary for students enrolling in this program, just a love of horses and a desire to learn more.

Location: Butler Tech Monroe Campus (Natural Science Building)

Exercise Science
If you are interested in fitness, nutrition, physical therapy, and how the body works, consider Exercise Science. Our students learn how to make the body stronger and help patients recover from injuries. All students receive First Aid/CPR certification in their junior year. Students design and implement exercise programs in our carefully designed, state-of-the-art exercise science lab. Students will be prepared to take the Personal Trainer Certification exam upon graduation.

UC Health West Chester Hospital offers the opportunity for these students to job shadow or intern to gain valuable knowledge and experience.

Courses include: Athletic Inquiry and Prevention, Exercise and Athletic Training, Fitness Assessment and Evaluation, Medical Terminology

Location: Butler Tech West Chester Campus (Bioscience Building)

Firefighting Technology
Join the ranks of our nation’s Firefighters and Emergency Medical Technicians through the Firefighting Technology program. Master firefighting skills through the 240 level 2 firefighting certification, as well as earning certification as an Emergency Medical Technician – Basic. Introduction to such advanced disciplines as hazardous materials response, vehicle extrication, rope rescue, and confined space rescue are provided as part of the exciting curriculum. Use your newly acquired skills to enter a Paramedic program, corporate emergency management, private or emergency ambulance operations, firefighting, fire safety inspection, or industrial safety management.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)
**Healthcare Science**
Healthcare Science is for students who want to earn an associate or bachelor’s degree in the health field after high school. This program gives students the opportunity to gain hands-on experience and earn college credit while still in high school.

All students receive First Aid/CPR certification in their junior year. By the completion of the program, students may earn certification as a State Tested Nurse Aide (STNA). There are many career options: directly entering the work force, continuing education or both. Butler Tech adult education programs help students earn their Licensed Practical Nurse (LPN) or Phlebotomy certifications if they choose to pursue these programs.

During both junior and senior year, students will have the opportunity to participate in career exploration and job shadowing at area medical institutions, such as UC Health West Chester Hospital, Atrium Medical Center and Butler County Care facilities.

Each student has the potential of earning up to 40 college credit hours. Scholarships to colleges are available upon successful completion of this program.

Location: Butler Tech West Chester Campus (Bioscience Building)

**Information Technology**
The Information Technology Tech Prep Academy offers hands-on, real world computer and networking training. This is a two-year program with the opportunity to go on to a two- or four-year college educational track with scholarship awards. The program focuses on applications and provides the student a chance to learn skills like: Application software; Computer networking; Telecommunications/electronics; Game design/animation and modeling; Network security; Operating systems; Cloud computing; Virtualization; Health IT; Interactive media

Students are provided certification training for CompTIA, telecommunications, Cisco, MAC OSX, Microsoft and LPI/RedHat/Unix. Discount vouchers are also available for the certification exam. You can earn up to 12-15 college credit hours in this program.

Butler Tech is committed to keeping the curriculum current and in pace with technology in order to meet the demands of the global economy. With the experiences gained, you could get that dream job through co-op, on-the-job training that may help pay your way through college.

**In this program, students will:** learn how to build, customize, upgrade and repair computers; participate in Project-Based Learning (PBL) activities. Students will build and/or design homebrew devices like seismographs, weather instruments, shortwave radio, smartphones/iPods, gaming consoles, robotics and other electronic engineering projects and create a gaming/animation program, design a website or learn to program.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

**Landscape Design & Construction**
Do you want to design, install and maintain creative natural living and recreational spaces? Landscaping is much more than the stereotype of cutting grass and spreading mulch. In our program, you will gain landscape industry knowledge through internships and real world projects and will learn basic construction skills for future use in the industry. Courses will provide you with opportunities to learn Landscape Design, Hardscape Installation, Landscape Systems Management and Turf Science and Management. Plumbing, electricity and flooring are just a few of the skills you will learn during your course of study.

Landscape Design & Construction places an emphasis on the business and design side of the landscape industry through a hands-on experience with the planning, design and installation of plants, brick pavers, hardscape, lighting design and water features.

Students will also gain knowledge in plant identification and the installation of dry stack stone, water features, brick pavers, landscape lighting, irrigation systems, and much more. Throughout all of the courses, an emphasis on business management practices, employability skills (interview skills, resume building and other soft skills) and safety procedures will be emphasized.

Location: Butler Tech Monroe Campus (Natural Science Building)
**Music (Instrumental or Vocal)**

Students pursuing Music at the School of the Arts will be part of a program that has a focus in rock, jazz and popular music. Technique courses are focused primarily on guitar, bass, drums, keyboards and vocals.

Required courses include Musical Concepts and Business of Arts and Communications. Other choices include: Musical Engineering; Musical Ensemble and Composition; Dance; Choreography; Acting Performance; Acting and Script Analysis; Costuming and Makeup.

Location: Butler Tech Fairfield Township Campus (School of the Arts Building)

**Precision Machining**

If you like working with your hands and have the ability to troubleshoot, design and work in a technical environment, Butler Tech Precision Machining may be the program for you.

Sporting equipment, automotive parts and many other things you use on a daily basis are made possible because of machine shops. As technology advances, the need for more sophisticated machinery becomes essential. The Precision Machining program provides students with skills necessary to create this new equipment and repair older models.

During the two-year program, students will work with metals to repair and make parts for tooling and also invent, design and create metal parts with state-of-the-art equipment.

Students cover many aspects of the industry, such as: Advanced manual machining, Blueprint reading, CNC machining, Milling, Reading measuring gauges, and Surface grinding.

After graduation, many students attend college to earn degrees in the engineering field. Students also directly enter the workforce or into apprenticeship programs. This program has a greater than 95 percent job placement rate.

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)

**Theatre**

Students pursuing Theatre at School of the Arts will be exposed to all aspects of technical theatre as well as the acting performance side of theatre, with specific opportunities to explore Musical Theatre.

Required courses include Acting Performance and Business of Arts and Communications. At least two other choices are required and include: Acting and Script Analysis; Costuming and Makeup; Dance; Choreography; Musical Concepts; Musical Engineering; Musical Ensemble and Composition.

Location: Butler Tech Fairfield Township Campus (School of the Arts Building)

**Veterinary Sciences**

The Butler Tech Veterinary Science program is a great way to “jump start” your career in the veterinary field. This program is for juniors and seniors in high school and is designed to give insight into the veterinary field and a head start into a competitive college program. You will learn about both small and large animals and receive a well-rounded education. The goal is to help you make a decision on the career path that is right for you.

The Veterinary Science program emphasizes hands-on learning, and students will work with the latest equipment and gain practical experience in the lab setting. Students will complete coursework through a variety of modules that mirror those they will study in college. They include: Safety/Animal Restraint and Handling; Intro to Animal Science; Careers in Animal Science; Medical Terminology; External Anatomy; Animal Behavior, Welfare and Husbandry; Preventive Animal Health; Pharmacology and Posology; Principles of Surgery; Hospital Procedures; Office Management; Preventive Animal Health; Disease and Parasites; and First Aid and CPR.

Students will also learn laboratory techniques in: Chemical Analysis of Blood; Microbiology; and Common Diseases and Disorders. A focus on professional career opportunities through our Senior Internship Program and Personal & Leadership Development provides a culminating experience for our students during their senior year.

Location: Butler Tech Monroe Campus (Natural Science Building)
Visual Arts
The Visual Design program at the School of the Arts covers the broad spectrum of career opportunities related to Visual Arts and Graphic Design. Students receive a basic exposure to all areas within Visual Design and graduate with a portfolio that can be used in job interviews and in the college application process.

All Visual Design students will take Business of Arts and Communication and three additional courses in the pathway, in addition to completing a senior year Capstone project in their preferred visual medium.

Courses include Visual Creation, Digital Print Design, Photographic Composition and more. The business side of the arts is also taught: marketing, branding, producing, promoting, booking, budgeting and merchandising, and more. Students learn and apply intellectual property rights, licensing, copyright, royalties, liabilities and contractual agreements.

For the Capstone project, students apply Arts and Communication program knowledge and skills in a more comprehensive and authentic way. Capstones are project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through partnerships, students combine classroom learning with work experience to benefit themselves and others. These can take the form of mentorship employment, cooperative education, apprenticeships and internships.

Location: Butler Tech Fairfield Township Campus (School of the Arts Building)

Welding Technology
No matter how sophisticated technology becomes, one thing remains constant in the construction, fabrication, and industrial maintenance world: metal must be joined to metal, and only skilled, qualified Welding Technicians can do this vital job.

Butler Tech Welding Technology offers the student a great opportunity to explore the vast possibilities in the Welding Industry. We offer in-depth training using the latest welding and metal fabrication technology being used in today's industry. Skilled welders are in high demand in the industry.

Students will learn and get hands-on experience in: Basic metallurgy, Blueprint reading, Flux Core Arc Welding (FCAW), Fundamentals of metal fabrication, Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), Materials science inspection and testing, OSHA safety regulations, Oxy-fuel cutting, Plasma cutting, Shielded Metal Arc Welding (SMAW), and Welding symbols interpretation

Location: Butler Tech Fairfield Township Campus (D. Russel Lee Building)