Switzerland of Ohio Local School District High School Course Catalog

2020-2021 School Year

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Introduction

This Course Description Guide will give you an idea of the courses offered at the high school level. A student should choose courses based upon his/her needs in the future. **While every attempt will be made to offer each course, not all courses are taught each year because of the lack of requests for some courses or due to the lack of a highly-qualified teacher.**

Although the selection of the proper courses is the student's responsibility, students should seek the advice of counselors, teachers, and parents.

The Switzerland of Ohio Local School District wants to help students make the best choice for them. Parents are requested to become involved in the selection of courses for their children.

Students are to schedule so they have no more than one study hall.

Parents are requested to call the school if they have any questions.

Class of 2021-22 Graduation Requirements

Ohio's High School Graduation Requirements
Classes of 2021 and 2022

It's Your Future. Get Ready.

Before you know it, you'll be receiving your high school diploma. Ohio is giving you new ways to show the world what you can do with it.

As a student entering ninth grade between **July 1, 2017** and **June 30, 2019**, Ohio's new high school graduation requirements give you more flexibility to choose a graduation pathway that builds on your strengths and passions – one that ensures you are ready for your next steps and excited about the future.

Cover the basics

You must earn a minimum total of 20 credits in specified subjects and take your required tests. Then, decide how you will round out your diploma requirements.

English language arts	4 credits
Health	½ credit
Mathematics	4 credits
Physical education	½ credit
Science	3 credits
Social studies	3 credits
Electives	5 credits

Other Requirements
You also must receive instruction in economics and financial literacy and complete at least two semesters of fine arts. Your district may require more than 20 credits to graduate.

You have the option to show you are ready by meeting the **original three graduation pathways** below that were available when you entered high school.

Show you are ready

Use at least one pathway to show that you are ready for college or a job.

1. Ohio's State Tests
Earn at least 18 points on seven end-of-course state tests. End-of-course tests are:

Algebra I or Integrated Math I   English I
Geometry or Integrated Math II   English II
American Government   Biology
American History

Each test score earns you up to five graduation points. You must have a minimum of four points in math, four points in English and six points across science and social studies. Your school and district receive grades on the Ohio School Report Cards for all students' scores and participation on state tests.

OR

2. Industry credential and workforce readiness
Earn a minimum of 12 points by receiving a State Board of Education-approved, industry-recognized credential or group of credentials in a single career field and earn the required score on WorkKeys, a work-readiness test. The state of Ohio will pay one time for you to take the WorkKeys test.

OR

3. College and career readiness tests
Earn remediation-free scores in mathematics and English language arts on either the ACT or SAT.

The Ohio Department of Higher Education works with Ohio's universities to set the remediation-free scores for the ACT and SAT tests. Periodically, for a variety of reasons, these scores may be adjusted. For all high school juniors, the remediation-free scores set by Feb. 1 of their junior year will be used to meet their graduation requirement. The most up-to-date information regarding remediation-free scores can be found on the Department's graduation requirements webpage.

OR
(see reverse side)

Ohio | Department of Education

You can meet **new requirements** by demonstrating competency and readiness for a job, college, military or a self-sustaining profession.

Show competency

Earn a passing score on Ohio's high school Algebra I and English II tests. Students who do not pass the test will be offered additional support and must retake the test at least once.

Is testing not your strength? After you have taken your tests, there are three additional options to show competency!

Option 1.

Demonstrate Two Career-Focused Activities*:

Foundational
Proficient scores on WebXams
A 12-point industry credential
A pre-apprenticeship or acceptance into an approved apprenticeship program

Supporting
Work-based learning
Earn the required score on WorkKeys
Earn the OhioMeansJobs Readiness Seal

*At least one of the two must be a Foundational skill

Option 2.

Enlist in the Military
Show evidence that you have signed a contract to enter a branch of the U.S. armed services upon graduation.

Option 3.

Complete College Coursework
Earn credit for one college-level math and/or college-level English course through Ohio's free College Credit Plus program.

AND

Show readiness

Earn two of the following diploma seals, choosing those that line up with your goals and interests. These seals give you the chance to demonstrate academic, technical and professional skills and knowledge that align to your passions, interests and planned next steps after high school.

At least one of the two must be Ohio-designed:

- ☐ OhioMeansJobs Readiness Seal (Ohio)
- ☐ Industry-Recognized Credential Seal (Ohio)
- ☐ College-Ready Seal (Ohio)
- ☐ Military Enlistment Seal (Ohio)
- ☐ Citizenship Seal (Ohio)
- ☐ Science Seal (Ohio)
- ☐ Honors Diploma Seal (Ohio)
- ☐ Seal of Biliteracy (Ohio)
- ☐ Technology Seal (Ohio)
- ☐ Community Service Seal (Local)
- ☐ Fine and Performing Arts Seal (Local)
- ☐ Student Engagement Seal (Local)

Want to learn more? Contact your school counselor or visit education.ohio.gov/graduation

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Class of 2023 and Beyond Graduation Requirements

Third, show readiness

Earn two of the following diploma seals, choosing those that line up with your goals and interests. These seals give you the chance to demonstrate academic, technical and professional skills and knowledge that align to your passions, interests and planned next steps after high school.

At least one of the two must be Ohio-designed:

- ☐ OhioMeansJobs Readiness Seal (Ohio)
- ☐ Industry-Recognized Credential Seal (Ohio)
- ☐ College-Ready Seal (Ohio)
- ☐ Military Enlistment Seal (Ohio)
- ☐ Citizenship Seal (Ohio)
- ☐ Science Seal (Ohio)
- ☐ Honors Diploma Seal (Ohio)
- ☐ Seal of Biliteracy (Ohio)
- ☐ Technology Seal (Ohio)
- ☐ Community Service Seal (Local)
- ☐ Fine and Performing Arts Seal (Local)
- ☐ Student Engagement Seal (Local)

Want to learn more? Contact your school counselor or visit education.ohio.gov/graduation

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Number of Credits for Designated Grade Level

Pupils are assigned to homerooms according to his/her grade level as determined by the number of units which a pupil has earned. The minimum number of units required for assignments to each grade level above the ninth grade is as follows:

Grade 10 – 5 units required

Grade 11 – 10 units required

Grade 12 – 15 units required

Graduation – 21 units required

Honor Roll

The honor roll for all schools of the Switzerland of Ohio Local School District shall be:

Principal's List

A student must receive all A's to be on the principal's list. A student may not be on the principal's list if he/she receives any A-'s.

First Honors

To qualify for First Honors, the student must have a cumulative grade point average of 3.5 on a 4.0 scale. A grade of B- may be included but must be offset by higher grades in other subjects in order to meet the 3.5 average. No student is permitted on the honor roll with a grade below a B-.

Second Honors

To qualify for Second Honors, the student must have a cumulative grade point average of 3.0 on a 4.0 scale. A grade of B- may be included but must be offset by higher grades in other subjects in order to meet the 3.0 average. No student is permitted on the honor roll with a grade below a B-.

SOLSD Grade Letter Value and Grading Scale

LETTER	Value	Range
A	4.00	3.84 - 4.00
A-	3.66	3.51 - 3.83
B+	3.33	3.18 - 3.50
B	3.00	2.84 - 3.17
B-	2.66	2.51 - 2.83
C+	2.33	2.18 - 2.50
C	2.00	1.84 - 2.17
C-	1.66	1.51 - 1.83
D+	1.33	1.18 - 1.50
D	1.00	.84 - 1.17
D-	.66	.51 - .83
F	.0	.0 - .50

Numerical Letter Grade Value	
A	94 - 100
A-	92 - 93
B+	89 - 91
B	85 - 88
B-	83 - 84
C+	80 - 82
C	76 - 79
C-	74 - 75
D+	71 - 73
D	67 - 70
D-	65 - 66
F	0 - 64

Honors Diploma

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Ohio High School Honors Diploma

Criterion	Ohio Diploma	Academic Honors Diploma	International Baccalaureate Honors Diploma	Career Tech Honors Diploma	STEM Honors Diploma	Arts Honors Diploma (Includes dance, drama/theatre, music, and visual art)	Social Science & Civic Engagement Honors Diploma
Math	4 units, must include one unit of algebra II or equivalent	4 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content	4 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content	4 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content	5 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content[4]	4 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content	4 units, Algebra I, Geometry, Algebra II (or equivalent), and one other higher level course or 4 course sequence that contains equivalent or higher content
Science	3 units	4 units, including two units of advanced science[2]	4 units, biology, chemistry, and at least one additional advance science[2]	4 units, including two units of advanced science[2]	5 units, including two units of advanced science[2]	3 units, including one unit of advanced science[2]	3 units, including one unit of advanced science[2]
Social Studies	3 units	4 units	4 units	4 units	3 units	3 units	5 units
World Languages	N/A	3 units of one world language, or no less than 2 units of each of two world languages studied	4 units minimum, with at least 2 units in each language studied	2 units of one world language studied	3 units of one world language, or no less than 2 units of each of two world languages studied	3 units of one world language, or no less than 2 units of each of two world languages studied	3 units of one world language, or no less than 2 units of each of two world languages studied
Fine Arts	2 Semesters	1 unit	1 unit	N/A	1 unit	4 units	1 unit
Electives	5 units	N/A	N/A	4 units of Career-Technical minimum[3]	2 units with a focus in STEM courses	2 units with a focus in fine arts course work	3 units with a focus in social sciences and/or civics
GPA	N/A	3.5 on a 4.0 scale	3.5 on a 4.0 scale	3.5 on a 4.0 scale	3.5 on a 4.0 scale	3.5 on a 4.0 scale	3.5 on a 4.0 scale
ACT/SAT/Workkeys[1]	N/A	27 ACT/1280 SAT[3]	27 ACT/1280 SAT[3]	27 ACT/1280 SAT[3]/WorkKeys (6 Reading for Information & 6 Applied Mathematics)[7]	27 ACT/1280 SAT[3]	27 ACT/1280 SAT[3]	27 ACT/1280 SAT[3]
Field Experience	N/A	N/A	Complete a field experience and document the experience in a portfolio specific to the student's area of focus[5]	Complete a field experience and document the experience in a portfolio specific to the student's area of focus[5]	Complete a field experience and document the experience in a portfolio specific to the student's area of focus[5]	Complete a field experience and document the experience in a portfolio specific to the student's area of focus[5]	Complete a field experience and document the experience in a portfolio specific to the student's area of focus[5]
Portfolio	N/A	N/A	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[6]	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[6]	Develop a comprehensive portfolio of work based on the student's field experience or a topic that is related to the student's area of focus that is reviewed and validated by external experts[6]	Develop a comprehensive portfolio of work based on the student's field experience or a topic that is related to the student's area of focus that is reviewed and validated by external experts[6]	Develop a comprehensive portfolio of work based on the student's field experience or a topic that is related to the student's area of focus that is reviewed and validated by external experts[6]
Additional Assessments	N/A	N/A	N/A	Earn an industry-recognized credential or achieve proficiency benchmark for appropriate Ohio Career-Technical Competency Assessment or equivalent	N/A	N/A	N/A

NOTE: Items shaded in blue are changes that were made to the honors diploma system, including the entire STEM, Arts, and Social Science and Civic Engagement Honors Diplomas

1/24/17

Ohio High School Honors Diploma

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NOTES:

For the Academic, International Baccalaureate, and Career Tech Honors Diplomas, students who entered the ninth grade between July 1, 2013 and June 30, 2017 may choose to pursue the diploma by meeting the requirements of these criteria or the previous criteria. Students entering the ninth grade on or after July 1, 2017 must meet these criteria.

Completion of any advanced standing program, which includes Advanced Placement, International Baccalaureate, College Credit Plus, and may include Credit Flexibility, can be counted toward the unit requirements of an Honors Diploma.

Students must meet all but one of the criteria to qualify for an Honors Diploma, and any one of the criteria may be the one that is not met.

Diploma with Honors requirements pre-suppose the completion of all high school diploma requirements in the Ohio Revised Code including:

½ unit physical education (unless exempted), ½ unit health, ½ unit in American history, ½ unit in government, and 4 units in English. The class of 2021 and beyond will need to have ½ unit in world history and civilizations as well.

[1] Writing sections of either standardized test should not be included in the calculation of this score. The Locating Information test is not included in the calculation of the WorkKeys score.

[2] Advanced science refers to courses that are inquiry-based with laboratory experiences and align with the 11/12th grade standards (or above) or with an AP science course, or with an entry-level college course (clearly preparing students for a college freshman-level science class, such as anatomy, botany, or astronomy).

[3] Program must lead to an industry recognized credential, apprenticeship, or be part of an articulated career pathway which can lead to post-secondary credit.

[4] The fifth mathematics and science credit for the STEM honors diploma may be fulfilled with a single course.

[5] Field Experience refers to experiential learning in either an internship or apprenticeship. Students will document their experiences by describing their understanding in a portfolio.

[6] The student portfolio is a collection of experiential learning and competencies based on the student's field experiences. Students will engage with professionals or scholars in the field while developing their own portfolio or ePortfolio of original work that documents their technical, critical and creative skills representative of their honors focus; students' work must be reviewed and evaluated by scholars or professionals within the field/area of study in which the students' work is focused, and the scholars or professionals must be external to the district staff; students will give a presentation to showcase the work and provide an analysis of it to the school and local community. If the student does not complete a field experience, the portfolio can be based on a collection of work related to the student's honors diploma area of focus.

[7] Students must score a minimum of a 6 on the Applied Mathematics WorkKeys Assessment and a minimum of 6 on the Reading for Information WorkKeys Assessment in order to meet the WorkKeys score requirement. The WorkKeys option applies only to the Career Tech Honors Diploma.

[8] These scores are based on the 2016 ACT and SAT assessments. Concordance tables outlining equivalent scores for past and future tests that differ from the 2016 versions will be published on the ODE website. Tables to concord SAT assessments taken prior to March 2016 can be found here. Further information on test concordance can be found here.

Last Day to Change Course Section

The last day to change from one section of a course to another will be three weeks from the start of the semester. Any change after that will be under special circumstances considered by the Principal and Guidance Counselor.

Last Day to Drop an Elective Course

The last day to drop an elective course will be one week following the distribution of report cards for the first nine-week grading period. This will be allowed only if there is no more than 1 study hall as a result of this change.

Make Up Credits

All courses that are failed during the freshmen, sophomore, and junior years, that are required for graduation, must be made up by May 1st of the senior year. Any required course for graduation that is failed during the senior year cannot be made up to allow the student to graduate with his/her class on the scheduled graduation date. No student will be eligible for credit recovery until the course grade has been finalized.

College Credit Plus (CCP) Courses

CCP replaces Ohio's Post-Secondary Enrollment Options program (PSEO) and all alternative dual enrollment programs previously governed by Ohio Revised Code Chapter 3365. CCP began with the 2015-16 school year.

CCP participation
• All public districts and public institutions of higher education (IHE) must allow college-ready students, grades 7-12, who qualify for college admission to participate. Students are required to demonstrate that they are college ready through ACT scores or other college readiness assessment. Colleges and Universities will set their own requirements. Colleges must have the same requirements for high school students as they do for entry year freshman at the college.

CCP courses must…
• Be the same as those offered on campus (included in IHE course catalogue)
• Be nonsectarian and non-remedial

• Apply toward a degree or professional certificate
• Be taught by instructors who meet BOR's academic credential requirements

*** If interested in College Credit Plus, please talk to your Guidance Counselor about how to apply, the required placement test/s, and a course schedule.***

Laude System

Students in the Class of 2019 and beyond will be recognized for achievement based on the new board-adopted Laude System.

Philosophy behind the Laude System

* To raise every student to his/her highest potential in the student's area of interest
* To recognize and encourage students to take the appropriate courses that would better prepare the student for the future
* To reward students for taking more rigorous courses and courses that matriculate to a specific career

Process for determining the level of distinction

* The student must have an unweighted 7-semester cumulative GPA of 3.2 and includes all students in the graduating class at both the home school and the career center.
* Student must earn a minimum of 4 honor points for predetermined courses. Students must successfully complete the course to earn honors points.
* A recognition of Summa Cum Laude, Magna Cum Laude, or Cum Laude will be given based on the student's score – see chart for points
* Three graduation speakers will be chosen, The Class President, and two students selected from the pool of Summa Cum Laude who are interested in and agree to speaking at the graduation ceremony. Those names will be placed on a ballot and the high school faculty will vote by secret ballot.
* Final Laude Scores are based on 7th semester Cumulative GPA and 8th semester honor points. If after the 8th semester final calculation, a student's 8th semester cumulative GPA qualifies them for a Laude distinction, the student will receive a certificate after graduation and their Laude Distinction will be noted on their final transcript.
* Honor point courses: All Honor courses, All AP courses, All CCP courses, Physics, Pre-Calculus, Calculus, Anatomy, Chemistry II, Foreign Language – 4th level, all Vocational Courses that articulate to college credit.

To calculate your Laude Score

1. Student must have a 3.2 unweighted and cumulative GPA or higher at the end of 7 semesters and at least 6 honor points. GPA will not be rounded up.
2. Any student with a GPA lower than 3.2 or less will not have honors points calculated towards a Laude score
3. You must have successfully passed and completed a class to receive the designated honor points.
4. Add the number of honor points you have earned.
5. Multiply your total number of honor points by your unweighted cumulative GPA rounded to the nearest thousandth.

Total honor points	**8**
7 semester unweighted GPA	**X 3.83**

X   (rounded to the thousandth)

Total Laude Score = 30.64

Calculating Your Laude Score Example:

Summa Cum Laude Distinction, with highest honor/distinction - 50 Laude Score or more

Magna Cum Laude Distinction, with great honors/distinction - 30 – 49.99 Laude Score

Cum Laude, with honor/distinction 19 – 29.99 Laude Score

National Honor Society

Any junior or senior student wanting to qualify for the National Honor Society must meet the following minimum requirements:

1. Must have a 3.5 cumulative unweighted and unrounded GPA after the first semester of the academic year
2. Must have 2 years of a Foreign Language
3. Must have completed Physical Science and Biology
4. Must have 2 years of a college-prep Math
5. Must have all necessary credits in English, History, Health, and PE
6. Must display outstanding qualities in the areas of academics, service, leadership, and character

Please see your school NHS Advisor for additional school NHS chapter requirements .

Kiwanis Scholarship Banquet

Please see the 9-12 student handbook or your guidance counselor for more information concerning the Kiwanis Scholarship Banquet.

Advanced Placement (AP) Courses

Advanced Placement (AP) Courses

District policy for enrollment in an AP Course in school or online
Effective beginning the 2019-20 School Year

Requirements to enroll into an AP Course

1) **Enrollment in an AP Course:**
   a) A student may enroll in an AP course in school or online if they have achieved a "B" or higher grade average in a prior corresponding course and
   b) Student has achieved a 4 or higher on the State Test from a corresponding course or
   c) Student has achieved a college readiness score on the ACT/SAT tests.
      i) Examples: If a student is applying for an AP English course, they must have had a "B" average for the English course the year prior
      ii) If a student is applying for an AP History course online, they must have a "B" average in a prior history course.
   d) If the student wants to take an AP course online that is not offered in the district (Ex: AP German, AP Psychology, AP Calculus), then the student must have obtained a "B" average in the closest corresponding course as determined by administration.
      i) Examples: If a student wants to take AP German online, they must have a "B" average in the prior year's Language Course.
      ii) If a student wants to take AP Psychology online they must have a "B" average in the prior year's Social Studies Course.
   e) A student must also complete the following requirements prior to being placed in the AP course.
      i) Complete a pre writing sample for AP English, AP History/Government Course.
         (1) Writing sample will be graded on a district created rubric and students must receive a minimum of a 3 or higher for the writing sample. Rubric will be on a 0 to 5 scale.
      ii) Complete a Basic Knowledge sheet for AP Science and Math courses.

        (1) Basic Knowledge sheet will allow the student to show they have the basic knowledge in order to take the exam. Sheet will be graded and student must achieve and 80% or higher.

      iii) Writing Samples and Basic Knowledge Sheets will be turned into the AP coordinator once completed. Student names will be removed and a number will be assigned to each student. Teachers from a different building if available will grade the sheets without knowing who the student is. Writing samples and Basic Knowledge sheets should be completed and turned in by using a word processing program.

  f) No student can be placed in an AP course without meeting three out of four requirements.

    i)   B or higher in previous course or related course

    ii) 4 or higher on a State tests ex: End of course or Next Generation

    iii) College readiness score on the ACT or SAT

    iv) Writing Samples or Basic Knowledge sheet.

  g) Special considerations for a student's placement will be allowed with a majority consensus of the AP Coordinator, AP Teacher, Principal, and Superintendent.

  h) Acceptance into an online AP Course is also subject to any additional guidelines set forth by the organization offering the course.

2) Credit for the AP course:

  a) Laude System:

    i)   Students who take and complete an AP course in school or online, but do not take the corresponding National AP Exam for that course will receive 1.0 Laude point.

    ii) Students who take and complete a AP course in school or online and take the corresponding National AP Exam for that course will receive 1.25 Laude point.

    iii) Students who take and receive a AP exam score of 3 or higher will receive a 1.50 Laude point.

3) Adding or Dropping an AP Course:

  a) A student can add or drop an AP Course as long as they meet the district policy for doing so.

  b) If a student of the district wants to add a course after the school year starts, they will be responsible to understand and complete any prior assignments on his or her own.

  c) If a student moves into the district in the school year and wants to take an AP course, they will be informed of the coursework they have missed to better prepare them, but they will not be held responsible to complete the assignments if the student was not taking an AP course at the previous school.

  d) Course work from another AP course in a different district can be given if the student provides proof of work and the district offers that AP course.

SOLSD is working to increase the number of AP courses taught in our high schools. This requires our district to be approved by College Board for each AP course. Please see your counselor for courses that have been approved for the 2019-20 school year. For more information about AP visit ***apstudent.collegeboard.org***

Honors Course Policy

Honors Biology - District Policy or Prerequisite:

Students who want to enroll in a Biology Honors Course must meet 2 of the following requirements:

- Grade of B or Higher in a prior corresponding science course
- A score of Accelerated(4) or Advance(5) on a State Test the year prior in a Science course
- A Student has achieved a College readiness score on the ACT/SAT tests
- Achieved an 80% or higher practice exam for the honors course for students that do not have a score for an Ohio State tests in Science.
- Special considerations for a student's placement will be allowed with a majority consensus of the Coordinator of Gifted Services, Teacher of the Honors course, Principal, and Superintendent

Students are expected to earn a grade of "C" or higher. If a student is not meeting the minimum expectation within the first four weeks of the grading period, a conference will take place to include the teacher, parent, student, school counselor and/or principal to develop a plan for success. If the student, teacher, and parent recognize that the level of difficulty is such that the student is not successful, a level change should occur immediately. Should the student remain in the honors course at the end of the grading period the student is still not performing at the minimum grade requirement, the student will be withdrawn from the honors course and placed in the regular course.

Honors Math - District Policy

Students who want to enroll in a Math Honors Course must meet 2 of the following requirements:

- Grade of B or Higher in a prior corresponding Math course
- A score of Accelerated(4) or Advance(5) on a State Test the year prior in a Math course
- A Student has achieved a College readiness score on the ACT/SAT tests
- Special considerations for a student's placement will be allowed with a majority consensus of the Coordinator of Gifted Services, Teacher of the Honors course, Principal, and Superintendent

Students are expected to earn a grade of "C" or higher. If a student is not meeting the minimum expectation within the first four weeks of the grading period, a conference will take place to include the teacher, parent, student, school counselor and/or principal to develop a plan for success. If the student, teacher, and parent recognize that the level of difficulty is such that the student is not successful, a level change should occur immediately. Should the student remain in the honors course at the end of the grading period the student is still not performing at the minimum grade requirement, the student will be withdrawn from the honors course and placed in the regular course.

English Honors District Policy Prerequisite:

Students who want to enroll in an English Honors Course must meet 3 of the following requirements:

- Grade of B or Higher in a prior corresponding English course
- A score of Accelerated(4) or Advance(5) on a State Test the year prior in a English course
- A Student has achieved a College readiness score on the ACT/SAT tests
- Complete a pre-writing sample for the honors course and achieve a score of 3 or higher using the Pre-AP writing rubric.
- Special considerations for a student's placement will be allowed with a majority consensus of the Coordinator of Gifted Services, Teacher of the Honors course, Principal, and Superintendent

Students are expected to earn a grade of "C" or higher. If a student is not meeting the minimum expectation within the first four weeks of the grading period, a conference will take place to include the teacher, parent, student, school counselor and/or principal to develop a plan for success. If the student, teacher, and parent recognize that the level of difficulty is such that the student is not successful, a level change should occur immediately. Should the student remain in the honors course at the end of the grading period the student is still not performing at the minimum grade requirement, the student will be withdrawn from the honors course and placed in the regular course.

History Honors District Policy Prerequisite:

Students who want to enroll in a History Honors Course must meet 2 of the following requirements:

- Grade of B or Higher in a prior corresponding History course
- A Student must receive a score of 80% or higher on a pretest for the history course.
- Complete a pre-writing sample for the honors course and achieve a score of 3 or higher using the Pre-AP writing rubric.
- Special considerations for a student's placement will be allowed with a majority consensus of the Coordinator of Gifted Services, Teacher of the Honors course, Principal, and Superintendent

Students are expected to earn a grade of "C" or higher. If a student is not meeting the minimum expectation within the first four weeks of the grading period, a conference will take place to include the teacher, parent, student, school counselor and/or principal to develop a plan for success. If the student, teacher, and parent recognize that the level of difficulty is such that the student is not successful, a level change should occur immediately. Should the student remain in the honors course at the end of the grading period the student is still not performing at the minimum grade requirement, the student will be withdrawn from the honors course and placed in the regular course.

Pre-AP Writing Rubric

Score	Writing
4 Advanced The response demonstrates or includes:	● Cohesion and the highly effective use and command of language ● A logical structure, with an insightful claim, effective order, and clear transitions ● A strong command of the conventions of standard written English, with almost no errors.
3 Proficient The response demonstrates or includes:	● Cohesion and an adequate use and command of language ● A logical structure, with a plausible claim, effective order, and transitions ● An adequate command of the conventions of standard written English, with only slight errors that do not interfere with meaning
2 Partial The response demonstrates or includes:	● Little to no cohesion or command of language ● An inadequate structure, with an unclear claim and a lack of adequate transitions ● Several errors in the conventions of standard written English that interferes with meaning
1 Inadequate The response demonstrates or includes:	● A complete lack of cohesion or command of language ● A mission or inadequate structure, with no identifiable claim and few if any transitions ● Many errors in the conventions of standard written English that interferes with meaning
Score	Comments:

Rubric Take directly from the Pre-AP English Course Guide pgs. 40-41

Athletic Eligibility

Grades 9 - 12: To be eligible, a student-athlete must be currently enrolled in a member school and have earned at least a 1.75 GPA and received a passing grade in a minimum of five (5) one-credit courses, or the equivalent, in the immediately preceding grading period.

Eligibility for students selecting to participate in CCP must be certain that:

1.) The faculty members at the post-secondary institution understand that they will need to provide grades or a progress report at the time when the high school's grading period is over.

2.) The student-athlete is taking enough post-secondary course work exclusively or between the post-secondary institution and the high school combined to be equivalent to five one-credit courses. Calculating equivalency of credits in the post-secondary institution is conducted in the same manner as in the high school, based on the Carnegie unit. College courses for which three or more semester hours of credit are earned shall be awarded one Carnegie unit. Fractional Carnegie units will be awarded proportionately.

Examples of CCP options:

Example: 1st Nine-Week Grading Period
Subject School Credit & Duration Credit Equivalency (Must Equal 5 Units or Equivalent)
History High School 1 (year course) 1 x 1 = 1
Literature CCP 3 semester hours 1 x 2 = 2
Calculus CCP 5 semester hours 1 x 2 = 2
Biology CCP 3 semester hours 1 x 2 = 2
Total Credits 7 = eligible for 2nd grading period provided five credits passed. The factor of 2 is used for post-secondary institutions that are on the semester system.

Example 2: 4th Nine-Week Grading Period
Subject School Credit & Duration Credit Equivalency (Must Equal 5 Units or Equivalent)
French CCP 5 semester hours 1 x 2 = 2
Sociology CCP 3 semester hours 1 x 2 = 2
Computers CCP 2 semester hours .67 x 2 = 1.34
Geology CCP 3 semester hours 1 x 2 = 2
Total Credits 7.34 = eligible for 1st grading period of next school year provided five credits passed. The factor of 2 is used for post-secondary institutions that are on the semester system.

***Note that this student is taking all courses in CCP, which is acceptable. ***

A student enrolled in the first grading period after advancement from the eighth grade must have passed 75% of those subjects carried the preceding grading period in which the student was enrolled.

Summer school and other educational options may not be used to substitute for failure to meet the academic standards specified by the Ohio High School Athletic Association and the Switzerland of Ohio Local Schools.

If you have questions concerning your athletic eligibility, please see your Principal, Guidance Counselor, or Athletic Director as soon as possible.

Career Technical Education - Swiss Hills Career Center

Students at Beallsville High School, Monroe Central High School and River High School have the option of attending Swiss Hills Career Center during their sophomore, junior and senior years to receive career technical training. There are many opportunities for students. Students are encouraged to make choices based upon their needs and desires. Parents are encouraged to be part of this decision-making process by talking to administrators, counselors and Career Readiness Coordinator at the Career Center, Beallsville High School, Monroe Central High School and River High School.

Career Technical Pathway to College

All programs at Swiss Hills can lead to Post-Secondary Education in either a two-year or four-year college, depending on the entrance requirements of the particular college. In addition, college credit can be earned through specific CT courses.

SWISS HILLS CAREER CENTER

Our Objective:
> The primary objective of the Career Technical training programs at Swiss Hills Career Center is to assist students, businesses, and industry in promoting growth through quality education and training.

Our Vision:

Every Swiss Hills Career Center career tech program graduate is prepared for successful employment and ongoing education.

Our Mission:

The Mission of Swiss Hills Career Center is to prepare all students for lifelong learning through challenging academic education and technical literacy.

Our Commitment:

The Staff at Swiss Hills Career Center is committed to:
- ❖ Achieving excellence
- ❖ Delivering results
- ❖ Responding to our community needs
- ❖ Creating an environment for success

Swiss Hills Career Center provides:

- ❖ Options and Opportunities
- ❖ Real-world Learning
- ❖ Partnerships with business and industry
- ❖ Productive citizens

Advisory Committees:

Each Career Tech program has an Advisory Committee which is designed to assist in meeting the workforce development needs of the community and interests of the individual students. The dialogue between advisory committee members and career technical educators fosters a shared responsibility for preparing students for a place in the workforce and in society. Members may include former students, representatives of professional associations, community business and industry, and post-secondary institutions.

Certificate of Completion:

Each student who completes a Career Technical program with a minimum of a "C" average and a 90% attendance rate will qualify for a Certificate of Completion. The Certificate of Completion and a Career Passport will be awarded to successful program completers.

Early Placement:

Apprenticeships, Job shadowing, and "on the job" training are part of the experiences at Swiss Hills. Students meeting requirements are able to complete their high school diploma while advancing themselves in their chosen career field.

Prospective Swiss Hills Career Center Students

Students planning to attend Swiss Hills must have completed the following required subjects at Beallsville High School, Monroe Central High School or River High School by the end of the sophomore year: 2 credits of English; 2 credits of Social Studies; 2 credits of Science; 2 credits of Math; ½ credit of Health; ½ credit of Physical Education; and 2 credits of electives. While attending Swiss Hills, a student will receive either 6 or 7 credits for each year of the career tech program. **(If a student does not acquire the needed credits in the first two years of high school to attend Swiss Hills, the student will need to gain the necessary credit(s) through credit recovery or repeating the course the next school-year.)**

SWISS HILLS CAREER CENTER

- **The following list of Career-Technical Programs**

  are approved to be offered at Swiss Hills Career Center for 2019-20. These programs are subject to student enrollment.

  - Agricultural and Environmental Systems (Animal Science Pathway)
  - Business Administration & Management (Finance Pathway)
  - Construction Technologies (Structural Pathway and Design Pathway)
  - Engineering and Science Technologies (Engineering and Design Pathway)
  - Health Science (Allied Health and Nursing Pathway)
  - Hospitality and Tourism (Culinary Arts Pathway and Hospitality Pathway)
  - Human Services (Cosmetology Pathway)
  - Information Technology (Cybersecurity Pathway)
  - Law and Public Safety (Firefighting and Emergency Medical Services Pathway and Criminal Justice Pathway -SR ONLY PROGRAMs)
  - Manufacturing (Manufacturing Operations Pathway)
  - Transportation Systems (Ground Transportation Pathway)

Additional Career Tech Information

Tech Prep:
Each of our programs articulate with area colleges through the Ohio College Tech Prep Consortium. Students will be given college credit for some of the courses taken at Swiss Hills.

Career Technical Honors Diploma:

Students who complete an intensive career technical education curriculum may earn a diploma with honors from the home high school. Refer to the Switzerland of Ohio Local School District Student Handbook for details.

Industry Credentials:
Upon successful completion, students are able to earn an industry credential. They include:

WebXam & WorkKeys Tests - All programs
OHSA - Occupational Safety & Health Administration 10-Hour -   All programs
STNA - State Tested Nurse Assistant & First Aid/CPR -
  Medical Technologies
CCNA - Cisco Certified Network Associate- Networking
NATEF - National Automotive Technicians Education Foundation- Automotive Technology
AWS - American Welding Society -Welding Technology
State Board of Cosmetology License - Cosmetology
Microsoft Office Specialist - Business, Admin., & Mgt.
ServSafe - Restaurant Mgt.
ETA - Electronic Technician Association - Electronics

Career-Technical Student Organization (CTSO)

- BPA
- DECA
- FCCLA
- FFA
- SkillsUSA
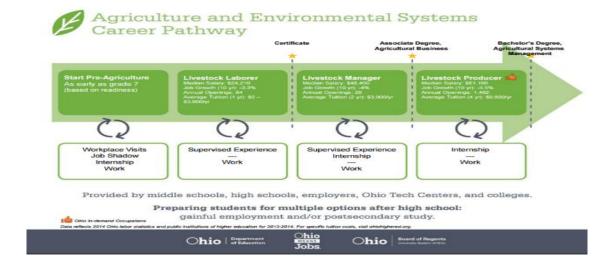
Scheduling for All High School Courses

Students are to request courses so they will not have more than one study hall. If a student does not request enough courses to fill his/her schedule, he/she will be assigned courses. Some freshmen who are taking P.E. may only be able to carry a maximum of 5.75 units of credit, but every other student must carry at least six (6) units of credit. Freshmen are required to take health. Pupils may carry additional units of credit only after conferring with their guidance counselor. **While every attempt will be made to offer each course, not all courses are taught each year because of the lack of requests for some courses or due to the lack of a highly-qualified teacher.**
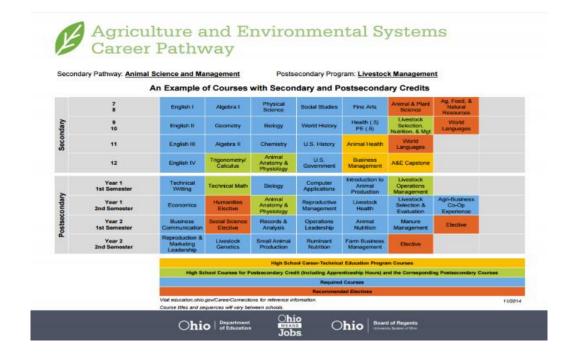
Career Connections

A Career Pathway is a collective look at education and training, wage and outlook information for related occupations. These pathways offer an overview of the various career options along with education and training that can begin as early as grade 7. Whether a student is interested in going to college, getting a certificate or working right after high school, career pathways can be customized for any ambition or plan. For additional career planning resources, visit **OhioMeansJobs.com.**

Another great resource for career planning is the **Ohio Department of Education Career Connections** page at http://education.ohio.gov/Topics/Career-Tech/Career-Connections/Career-Pathways Many pathways are available to explore by clicking on the area of interest.

Example:

Agriculture and Environmental Systems Career Pathway

Secondary Pathway: **Animal Science and Management**   Postsecondary Program: **Livestock Management**

An Example of Courses with Secondary and Postsecondary Credits

Secondary 7/8	English I	Algebra I	Physical Science	Social Studies	Fine Arts	Animal & Plant Science	Ag, Food, & Natural Resources
9/10	English II	Geometry	Biology	World History	Health (.5) PE (.5)	Livestock Selection, Nutrition, & Mgt	World Languages
11	English III	Algebra II	Chemistry	U.S. History	Animal Health	World Languages	
12	English IV	Trigonometry/Calculus	Animal Anatomy & Physiology	U.S. Government	Business Management	A&E Capstone	
Postsecondary Year 1 1st Semester	Technical Writing	Technical Math	Biology	Computer Applications	Introduction to Animal Production	Livestock Operations Management	
Year 1 2nd Semester	Economics	Humanities Elective	Animal Anatomy & Physiology	Reproductive Management	Livestock Health	Livestock Selection & Evaluation	Agri-Business Co-Op Experience
Year 2 1st Semester	Business Communication	Social Science Elective	Records & Analysis	Operations Leadership	Animal Nutrition	Manure Management	Elective
Year 2 2nd Semester	Reproduction & Marketing Leadership	Livestock Genetics	Small Animal Production	Ruminant Nutrition	Farm Business Management	Elective	

High School Career-Technical Education Program Courses
High School Courses for Postsecondary Credit (Including Apprenticeship Hours) and the Corresponding Postsecondary Courses
Required Courses
Recommended Electives

Visit education.ohio.gov/CareerConnections for reference information.
Course titles and sequences will vary between schools.

11/2014

Ohio | Department of Education   Ohio MEANS Jobs   Ohio | Board of Regents University System of Ohio

Course Pathways

The following charts help you to schedule your four-year plan to meet your graduation requirements. These pathway plans are recommendations for students as you create the best pathway to your future.

College Prep Pathway, Honor Diploma			
Grade 9	**Grade 10**	**Grade 11**	**Grade 12**
Choose: English 9 / Honors English 9	Choose: English 10 / Honors English 10	Choose: English 11 – literature and composition / AP or Honors English 11	Choose: English 12 - literature and composition / AP or Honors English 12
Grade 8 Algebra I / Choose: Geometry / Honors Geometry	Choose: Honors Algebra II / Algebra II	Pre-Calculus	Calculus
Choose: Physical Science / Physical Science	Choose: Biology / Honors Biology	Chemistry	Physics – required for Honors Diploma along with 4 credits in Science
Choose: World History	Choose: American History	Choose: American Government	Honors Diploma – 4 full credits in SS
PE 9/ Health 9	PE 10/Financial Management		
Computer Skills and Applications			Speech (semester course)
French I Or Spanish I	French II Or Spanish II	French III Or Spanish III	French IV Or Spanish IV
*many college require 2 years of a foreign language; an Honors Diploma requires 3 years of the same language or 2 of one language and 2 of another language			
ELECTIVES 5 electives are required for graduation	Elective suggestions below are based on the pathway area the student is considering at the college level, but in no way limits the elective choices to only those pathway choices		
Business & Technology Pathway	Intro to Computers	Interactive Media I (double period) *Design Technology *Creating and Editing Digital Graphics College Accounting I	Interactive Media II (double period) *Web Design *Multimedia and Image & Management Techniques College Accounting II
Health & Human Services		Forensics I & II / Psychology Sports Medicine / Sociology Anatomy & Physiology	
STEM		Forensics I & II / Earth & Space Science Botany / Ecology	Chemistry II Physics
General Electives Art I – IV / Theater I-IV / Vocal and Instrumental Music	Family Consumer Sciences / Current Events / Geography		

		Career Tech or Regular Diploma Pathway			
Grade 9	Grade 10	Grade 11		Grade 12	
		Home School	SHCC	Home School	SHCC
English 9	English 10	English 11	Career Tech English 11	English 12	Career Tech Eng 12
Algebra I or Integrated Math I	Geometry or Integrated Math II	Applied Algebra II A	Career Based Math or Applied Algebra II A	Applied Algebra II B	Applied Algebra A or Applied Algebra B
Physical Science	Biology	Chemistry or 2 semester courses from: Forensics I & II, Botany, Ecology, Earth/Space Science	Career Tech Science 11	Electives	American Government
World History	American History	American Government	Career Tech Program	Electives	Career Tech Program
PE 9/ Health 9	PE 10/Financial Management	Electives		Electives	
Computer Skills and Applications	Art I	Electives		Speech (semester course)	

ELECTIVES					
5 electives are required for graduation		Elective suggestions below are based on the pathway area the student is considering at the college level, but in no way limits the elective choices to only those pathway choices			
Business & Technology Pathway	Intro to Computers	Interactive Media I (double period) *Design Technology *Creating and Editing Digital Graphics College Accounting I		Interactive Media II (double period) *Web Design *Multimedia and Image & Management Techniques College Accounting II Computer Apps – MCHS	
Health & Human Services		Forensics I & II Sports Medicine Anatomy & Physiology	Psychology Sociology		
STEM		Forensics I & II Botany	Earth & Space Science Ecology	Chemistry II Physics	
General Electives Art I – IV Theater I-IV Vocal and Instrumental Music	Family Consumer Sciences Current Events Geography				

Alphabetical Listing of Course Area

This Course Description Guide will give you an idea of the courses offered at the high school level. A student should choose courses based upon his/her needs in the future. **While every attempt will be made to offer each course, not all courses are taught each year because of the lack of requests for some courses or due to the lack of a highly-qualified teacher.**

AGRICULTURAL AND ENVIRONMENTAL SYSTEMS CAREER FIELD AND PATHWAY

The Agricultural and Environmental Systems Career Field prepares students for careers in Agribusiness and Production Systems, Animal Science and Management, Bioscience, Horticulture, Natural Resource Management and Power Technology.

Agribusiness and Production Systems Pathway

Agribusiness and Production Systems program areas apply animal, plant and environmental sciences to the production, management, marketing, distribution and processing of agronomic crops and domesticated livestock. Communications, business principles and leadership skill development are essential to these program areas.

Careers for which this pathway prepares students include:

Farmer

Advisor

Grain Buyer

Surveyor

Livestock Buyer

Postsecondary majors for which this pathway prepares students include:

Agribusiness/Agricultural Business Operations

Agricultural and Extension Education Services

Agricultural Business and Management

Agricultural Economics

Agricultural Production Operations

Agricultural Public Services

Small Business Administration/Management

Applied Economics

Banking and Financial Support Services

Business/Corporate

Communications

Finance and Financial Management Services

Marketing/Marketing Management

Merchandising and Buying Operations

Agronomy and Crop Science/Crop Production

Entomology

Plant Pathology/Phytopathology

Plant Protection and Integrated Pest Management

Science Technologies

Animal Science and Management Pathway

Animal Science and Management program areas will prepare students for careers in training and marketing domesticated and exotic animals. Students will gain the necessary technical and academic skills in anatomy and physiology, nutrition, reproduction, health, genetics and behavior.

Careers for which this pathway prepares students include:

Veterinarian

Breeder

Zoologist

Ferrier

Trainer

Groomer

Postsecondary majors for which this pathway prepares students include:

Animal/Livestock Husbandry and Production

Diary Science
Equestrian/Equine Studies
Veterinary/Animal Health Technology/Technician and Veterinary Assistant
Zoology/Animal Biology

Bioscience Pathway

Bioscience program areas will prepare students for careers in plant/animal research and food processing. Students will gain the necessary technical and academic skills in chemistry, microbiology, genetics, testing, nutrition, safety/quality assurance, preservation and packaging to generate a variety of products.

Careers for which this pathway prepares students include:

Food Scientist	Geneticist
Lab Technician	Inspector

Postsecondary majors for which this pathway prepares students include:

Agricultural and Food Products Processing	Food Science
Biotechnology	Bioengineering and Biomedical Engineering
Food Science	Microbiology
Clinical Laboratory Science	Bioinformatics
Medical Technology	Molecular Genetics
Biochemistry	Biology/Biological/Biomedical Sciences

Horticulture Pathway

Horticulture program areas will prepare students for careers in landscaping and plant/floral design. Students will gain the necessary technical and academic skills in plant anatomy, nutrition, reproduction, genetics, health, production and marketing.
Careers for which this pathway prepares students include: Soil Scientist Nursery Technician Foreman Turf Manager Grower

Postsecondary majors for which this pathway prepares students include:

Applied Horticulture Science/Horticulture Operations	Ornamental Horticulture
	Plant Nursery Operations and Management
Botany/Plant Biology	Plant Sciences
Greenhouse Operations and Management	Turf and Turfgrass Management
Landscaping and Groundskeeping	

Natural Resource Management Pathway

Natural Resource Management program areas will prepare students for careers in environmental management, energy, parks and recreation, wildlife and forestry. Students will gain the necessary technical and academic skills in extraction, processing, protection, use and/or renewal of soil and water, mineral resources, plants, non-domesticated animals and aquatic life.

Careers for which this pathway prepares students include:

Environmental Scientist	Energy Engineer
Forester	Park Ranger

Biologist

Postsecondary majors for which this pathway prepares students include:
Ecology
Energy Management and Systems Technology
Environmental Control Technologies/Environmental Engineering Technology
Environmental Science
Environmental Health Engineering
Fishing and Fisheries Sciences and Management
Forestry/Forest Management/Forest Resources Management/Forest Technology
Urban Forestry
Hazardous Materials Management and Waste Technology
Mining Technology
Natural Resources Management and Policy
Natural Resources/Conservation
Petroleum Technology
Solar Energy Technology
Viticulture and Enology
Water Quality and Wastewater Treatment Management and Recycling Technology
Water Resources Engineering
Water, Wetlands and Marine Resources Management
Wildlife Biology
Wildlife, Fish and Wildlands Science and Management
Wood Science and Wood Products/Pulp and Paper Technology

Power Technology Pathway

Power Technology program areas will prepare students for careers in power equipment service. Students will gain the necessary technical and academic skills in maintenance, diagnosis and repair of equipment and systems.

Careers for which this pathway prepares students include:
Farm Mechanic   Service Technician
Equipment Operator

Postsecondary majors for which this pathway prepares students include:
Agricultural Engineering
Agricultural Mechanization
Agricultural Power
Machinery Operation
Diesel Mechanics Technology
Electrical and Electronic Engineering Technologies
Electrical and Power Transmission Installation
Heavy/Industrial Equipment Maintenance Technologies
Hydraulics and Fluid Power Technology
Industrial Electronics Technology
Industrial Mechanics and Maintenance Technology
Machine Tool Technology

Courses in Agribusiness & Production Pathway

Pathway Courses	Subject Code
Agriculture, Food and Natural Resources	010105
Animal and Plant Science	010125
Business Management for Agricultural and Environmental Systems (CTAG/College Credit 3-semester hours available)	010115
Mechanical Principles	010120
Agricultural and Environmental Systems Capstone	010190
Greenhouse and Nursery Management (CTAG/College Credit 3-semester hours available)	010610
Agronomic Systems (CTAG/College Credit 3-semester hours available)	010620
Energy Systems Management(CTAG/College Credit 3-semester hours available)	010715
Environmental Science for Agriculture and Natural Resources(CTAG/College Credit 3-semester hours available)	010720
Animal Health	010915
Livestock Selection, Nutrition, and Management	010920
Global Economics and Food Markets	010130
Animal Anatomy and Physiology	010945
Forestry and Woodland Ecosystems	010730
Science and Technology of Food (CTAG/College Credit 3-semester hours available)	011010
Meat Science and Technology	011020
Animal and Plant Biotechnology (CTAG/College Credit 3-semester hours available)	012010

Courses in Animal Science and Management Pathway

Pathway Courses	Subject Code
Agriculture, Food and Natural Resources	010105
Business Management for Agricultural and Environmental Systems (CTAG/College Credit 3-semester hours available)	010115
Agricultural and Environmental Systems Capstone	010190
Meat Science and Technology	011020
Animal Science and Technology (CTAG/College Credit 3-semester hours available)	010910
Animal Health	010915

Livestock Selection, Nutrition, and Management	010920
Companion Animal Selection, Nutrition, and Management	010925
Veterinary Science	010930
Equine Selection, Nutrition, and Management	010935
Zoo and Aquarium	010940
Animal Anatomy and Physiology	010945
Plant and Horticultural Science (CTAG/College Credit 3-semester hours available)	010155
Environmental Science for Agriculture and Natural Resources (CTAG/College Credit 3-semester hours available)	010720
Medical Terminology	072150

Courses in Natural Resources Management Pathway

Pathway Courses	Subject Code
Agriculture, Food and Natural Resources	010105
Business Management for Agricultural and Environmental Systems (CTAG/College Credit 3-semester hours available)	010115
Agricultural and Environmental Systems Capstone	010190
Electronic and Electrical Systems	010215
Hydraulics and Pneumatics	010225
Natural Resources (CTAG/College Credit 3-semester hours available)	010710
Energy Systems Management (CTAG/College Credit 3-semester hours available)	010715
Bio Energy	010716
Solar and Wind Energy (CTAG/College Credit 3-semester hours available)	010717
Oil and Gas Operations	010718
Environmental Science for Agriculture and Natural Resources (CTAG/College Credit 3-semester hours available)	010720
Environmental Systems Management	010725
Forestry and Woodland Ecosystems	010730
Park and Recreational Management	010735
Urban Forestry	010740
Wildlife and Fisheries (CTAG/College Credit 3-semester hours available)	010745

Agriculture, Food and Natural Resources
Subject Code: 010105
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☐RHS ☐SHCC

This first course in the career field is an introduction to Agricultural and Environmental Systems. Students will be introduced to the scope of the Agricultural and Environmental Systems career field. They will examine principles of food science, natural resource management, animal science & management, plant & horticultural science, power technology and bioscience. Students will examine the FFA organization and Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agriculture industry.

 This course is offered during the Freshmen year and can be taken in place of the Physical Science course. (Ohio Standards covered in the AFNR /Agri. Science course are the same as those in Physical Science.) Upper class students may take this course as an elective. A Web Exam is required upon completion of this course.

Animal and Plant Science
Subject Code: 010125
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply knowledge of animal and plant science to the agriculture industry. They will be introduced to the value of production animals relative to the agricultural marketplace. Students will engage in animal classification and selection, body systems, along with animal welfare and behavior in relation to the production of animals. Students will learn principles of plant anatomy and physiology, and the role of nutrition, deficiencies and growing environment on plant production. Throughout the course, business principles and professional skills will be examined.

Mechanical Principles
Subject Code: 010120
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will engage in the mechanical principles utilized in animal and plant production systems. They will learn electrical theory, design, wiring, hydraulic and pneumatic theory, along with metallurgy in relation to hot and cold metals. Students will apply knowledge of sheet metal fabrication applicable to the agricultural industry along with identify, diagnose, and maintain

small air-cooled engines. Throughout the course, students will learn critical components of site and personal safety as well as communication and leadership skills.

Agronomic Systems
Subject Code: 010620

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 50 or higher on the corresponding End of Course examination

Students will apply knowledge and skills required to research, develop, produce and market major agricultural and horticultural crops. Cultural and sustainable production practices will be examined while students apply scientific knowledge of plant development, nutrition and growth regulation. The knowledge and skills needed to manage water, soils, and pests related to agronomic crops will be assessed. Students will employ technological advances, communication, business, and management strategies appropriate for the industry.

Business Management for Agricultural and Environmental
Systems Subject Code: 010115

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
4. Successfully complete secondary course and earn a qualifying score of 63 or higher on the corresponding End of Course examination

Students will examine elements of business, identify organizational structures and apply management skills while developing business plans, financial reports and strategic goals for new ventures or existing businesses. Learners will use marketing concepts to evaluate the marketing environment and develop a marketing plan with marketing channels, product approaches, promotion and pricing strategies. Throughout the course, students will apply concepts of ethics and professionalism while implications of business regulations will be identified.

Global Economics and Food Markets
Subject Code: 010130

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will examine economic principles related to agriculture, food, and natural resources along with the operation and use of commodity futures and option markets. Students will learn economic principles with emphasis on their application to the solution of agricultural industry problems. They will examine future exchanges and commodity futures contracts, hedging

strategies, as well as put and call options. Throughout the course, students will become familiar with the causes and consequences of economic growth, globalization and development.

Agricultural and Environmental Systems Capstone
Subject Code: 010190
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students apply Agricultural and Environmental Systems 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.

Electronic and Electrical Systems
Subject Code: 010215

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will diagnose, test and repair the electronic and electrical components found in industrial power equipment. Students will learn the physical principles of electricity and apply this knowledge in the maintenance, diagnostics and repair of electrical and electronic systems. Students will learn the physical and mathematical principles of electronics, controllers and sensors and will learn the operation of onboard computers and programmable controllers. Site and personal safety along with business and employability skills are emphasized throughout the course.

Hydraulics and Pneumatics
Subject Code: 010225
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC
Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the corresponding End of Course examination

Students will learn to diagnose, repair and rebuild hydraulic systems and their components. Students will learn the physical and mechanical principles of both hydraulic and hydrostatic operating units. Topics include testing system components and properly maintaining hydraulic and hydrostatic circuits. Students will demonstrate contamination control and system cleanliness

in both hydraulic and hydrostatic operating systems. Throughout the course, site and personal safety procedures and business practices are reinforced.

Animal Science and Technology
Subject Code: 010910

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 50 or higher on the corresponding End of Course examination

Students will learn and apply responsible animal management principles and routine husbandry practices. Topics will include nutrition, feeding, and caring for animals, body/carcass composition evaluation, and applying marketing principles to the sale and distribution of animal products. Learners will investigate animal genetics and how it impacts principles of animal improvement, selection and marketing. Throughout the course, learners will develop business leadership, problem-solving and communication skills in relation to the science of animals.

Animal Anatomy and Physiology
Subject Code: 010945

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will examine the structure and function of the major organ systems as well as the function and principle of blood flow in animals. Students will study internal and external anatomical parts, their functions, and will investigate the relationship among these parts and systems within the body of animal. Throughout the course, students will apply the internal functions of anatomical structures to the business and industry principles of the animal industry.

Animal Health
Subject Code: 010915

GRADE OFFERING   ☐9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will examine causes, symptoms, and treatment of common diseases with emphasis on developing preventative health management plans. Topics will include the study of pathogens, and classifying types of diseases and disorders. Students will perform animal health assessments and compare to standard characteristics. Throughout the course, students will utilize principles of technology to manage information systems, and research issues affecting the industry.

Medical Terminology
Subject Code: 072150

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the End of Course examination.

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. Further, students will interpret and translate medical records and documents.

Companion Animal Selection, Nutrition and Management
Subject Code: 010925

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will identify and apply responsible animal science principles and routine husbandry practices to companion animals. Topics will include principles and practices of nutrient utilization, breeding programs and management of facility/housing design, meal plans and general care practices. Students will apply knowledge of companion animal care to enhance animal growth, enrichment, training, and education engagement programs. Throughout the course, students will follow practices for care and legal compliance in relation to classification of animals.

Livestock Selection, Nutrition and Management
Subject Code: 010920

GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will identify and apply principles and routine husbandry practices to production animal populations. Topics will include principles of nutrition, feed utilization, animal welfare, selection and management of facilities and herd populations. Students will apply knowledge of production animal care to enhance animal growth, selection of breeding stock, and management practices. Throughout the course, students will develop management plans reflecting practices for care and legal compliance.

Equine Selection, Nutrition and Management
Subject Code: 010935

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will identify and apply responsible animal science principles and management practices to equine populations. Topics will include equine nutrition, selection, reproduction and facility

design and management. They will apply knowledge of equine science to enhance animal growth, enrichment and training, along with providing educational and visitor engagement programs. Throughout the course, students will develop management plans that reflect the classification of animals and follows best practices for care and legal compliance.

Zoo and Aquarium
Subject Code: 010940

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply responsible animal science principles and routine husbandry practices to captive animal populations. Learners will apply knowledge of animal behavior, welfare, and husbandry principles to enhance exhibit design, animal enrichment and training plans, and educational engagement programs. Emphasis will be given to data collection and research techniques. Students will apply principles of responsible population control, disease risk and management, and problem solving/action planning techniques.

Veterinary Science
Subject Code: 010930

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn causes, symptoms, and treatment of common diseases with special emphasis on developing preventative health management plans and breeding programs. Topics include veterinary pharmacology, radiology and imaging techniques, principles of surgery, safe laboratory skills, and the concepts of ethics and professionalism in the work place. Students will develop skills in inquiry and statistical methods. Throughout the course, learners will utilize principles of technology to manage information systems, and research issues affecting the industry.

Science & Technology of Food
Subject Code: 011010

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the corresponding End of Course examination

Students will examine the research, marketing, processing and packaging techniques applied to the development of food products. Learners will examine nutrient content and their chemical makeup, while applying principles of chemistry to the development of food products. They will examine and implement food safety, sanitation, and quality assurance protocols. Government regulations and food legislation will be examined and the implications to food science and technology will be identified.

Animal and Plant Biotechnology

Subject Code: 012010

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 60 or higher on the corresponding End of Course examination

Learners will apply principles of chemistry, microbiology and genetics to plant and animal research and product development. Students will apply genetic principles to determine genotypes and phenotypes. Students will describe the parts and functions of animal and plant cells and their importance in biochemistry. They will perform restrictive enzyme digests, Polymerase Chain Reactions and apply principles of nucleic acid blotting. This course will examine applications of Central Dogma Theory and other Molecular-Genetics Technologies.

Meat Science and Technology

Subject Code: 011020

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply food chemistry and microbiology to processing, preservation, packaging, storage and marketing of meat products. Students will design and implement a quality assurance program that meets legal compliance and demonstrates knowledge of safe operation and maintenance of equipment and facilities. Students will evaluate carcass composition, assign quality grades, and examine valuedadded products. Throughout the course, students will demonstrate customer service and sales techniques while understanding the scope and importance of business and safety regulations.

Greenhouse and Nursery Management

Subject Code: 010610

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

5. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
6. Successfully complete secondary course and earn a qualifying score of 63 or higher on the corresponding End of Course examination

Students will learn the operational practices needed for the successful growth of nursery stock and/or greenhouse plants. They will learn essential greenhouse practices including water and fertilizer distribution, lighting, ventilation and temperature control. Students will learn pest and disease identification and control along with bio-security practices. Students will demonstrate knowledge of propagation methods, plant health, nutrition, and growth stimulation. Throughout this course, business and employability skills will be emphasized.

Natural Resources
Subject Code: 010710

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 68 or higher on the corresponding End of Course examination

Students will apply science principles and management practices to the protection of renewable and non-renewable natural resources. Students will learn fundamentals of land use as well as watershed, wildlife, fishery and forest management. Furthermore, students will learn management practices related to managing air and water quality along with requirements for managing solid and liquid waste. Throughout the course, students will apply communications, business principles and leadership skills.

Energy Systems Management
Subject Code: 010715

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
7. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
8. Successfully complete secondary course and earn a qualifying score of 61 or higher on the corresponding End of Course examination

Students will apply basic principles of energy accounting, thermodynamics and heat transfer, energy conversion and efficiency to heating, power generation and transportation. Students will apply the principles and practices needed for managing renewable and non-renewable energy resources. Throughout this course, future energy systems and energy use scenarios are investigated, with a focus on promoting the use of renewable energy resources and technologies.

Environmental Science for Agriculture and Natural Resources
Subject Code: 010720

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 59 or higher on the corresponding End of Course examination

Students will study relationships between organisms and their environment. Principles of biogeochemical cycles, air-water-land relationships, non-point pollution, and wetlands will be

applied. Students will examine fundamentals of resource development, agriculture sustainability, energy needs and pollution control. They will analyze and interpret data gathered from studies on the ecosystem. Throughout this course, students will develop responses to environmental problems and develop management strategies for responsible conservation and resource development.

Environmental Systems Management
Subject Code: 010725

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will analyze and interpret biological, chemical and physical properties of soil, water and air. They will determine the source and type of environmental contamination evaluate pollution control measures and monitor treatment processes for potable water, waste water and solid waste. Throughout the course, learners will develop and implement environmental plans using principles governing ecosystems in relation to resource development and industrial processes.

Forestry and Woodland Ecosystems
Subject Code: 010740

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply principles of botany, dendrology and silviculture to the management of forests and forest ecosystems. They will apply principles of timber cruising with surveying and mapping techniques to take forest measurements. Learners will develop the knowledge and skills necessary for forest reforestation, timber stand improvement, timber harvesting and forest product utilization. Learners will operate and maintain forestry equipment, apply fire management practices, and understand related regulations, laws, and policy issues.

Park and Recreational Management
Subject Code: 010735

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will design facilities, develop educational programs and manage resources for use in public recreation. Students will maintain and operate equipment for maintaining wildlife habitat and supporting a variety of public recreational activities and facilities. Throughout the course, students will develop marketing and programming skills for park development, apply management practices to park operations and learn the systems required to maintain public safety.

Urban Forestry
Subject Code: 010740

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply techniques and practices promoting the care and management of trees for residential and commercial purposes. Topics include principles of soil management, dendrology and pest management. Students will analyze budgets; and develop short and long-range

management plans that balance environmental and economic goals supporting sustainable land use patterns. Throughout the course, students will apply principles of rigging, advanced rope techniques, and chainsaw applications for tree pruning and removal.

Wildlife and Fisheries
Subject Code: 010745

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 65 or higher on the corresponding End of Course examination

Learners will apply the principles and practices of resource conservation and management to fish and wildlife populations. Students will learn proper wild animal handling techniques, principles of wildlife nutrition, inventory practices, water quality parameters and testing, and natural and artificial propagation. Learners will apply principles of facility design and layout for managing fish populations. Throughout the course, learners will research and evaluate the impacts of various land practices, legislation, and human activities on habitats and populations.

Oil and Gas Operations
Subject Code: 010718

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will develop the skills applicable for the exploration, extraction and production of petroleum, natural gas and coal. They will learn practices related to the exploration, leasing, surveying, drilling, geophysical logging and completion process. Students will become familiar with wellhead and surface production equipment. Throughout the course, students will learn sampling, analysis, monitoring and control techniques for effective environmental management in the extractive industries.

Bio Energy
Subject Code: 010716

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will be introduced to the scientific and technical processes of biofuel/bioenergy production. Learners will evaluate the energy conversion process and methods for optimizing the fermentation process. Students will identify the systems and components employed by fermentation systems and communicate safe handling techniques of biomass, effluent and biogas. Throughout the course, students will evaluate environmental impacts, life-cycle analysis, and economic analysis of bioenergy production.

Solar and Wind Energy
Subject Code: 010717
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2. Successfully complete secondary course and earn a qualifying score of 52 or higher on the corresponding End-of-Course examination.
3. A student may only earn credit for Wind Energy OR Solar Photovoltaic because both of these subject areas are included in the yearlong secondary course Solar and Wind Energy.
4. Students must complete the *prerequisite - College Algebra.*
5. Students will not receive credit for Solar Photovoltaic until they have completed the pre-requisite requirement for College Algebra.

Students will conduct Energy Site Assessments by using and interpreting resource maps, performance data, zoning requirements and interferences, installation timelines and price. They will read plans, lay out components and assemble electrical system components. Students will perform system checkouts and interpret results from mechanical and electrical diagnostic reports and compile and maintain system records. Throughout the course, students will apply safety regulations and identify and resolve public safety issues.

ARTS & COMMUNICATIONS CAREER FIELD PATHWAY & COURSES

The Arts and Communication Career Field prepares students for careers in Media Arts, Performing Arts and Visual Design.

The Media Arts program areas prepare students for careers in various fields of communication such as journalism and commercial photography and film. Students gain the necessary technical and academic skills to develop and distribute mass media content.

Careers for which this pathway prepares students include:

Technical Writer/Editor	Content Strategist
Videographer Announcer	Photographer
Audio Engineer Reporter/Journalist	

Postsecondary majors for which this pathway prepares students include:

Advertising	Journalism
Writing	Public Relations/Image Management
Communication	Photography
Film/Cinema/Video/Photographic Studies	Social Media/Emerging Technologies

Courses in Media Arts Pathway

Pathway Courses	Subject Code
Arts and Communication Primer	340001
Business of Arts and Communications	340006
Arts and Communication Capstone (Apprenticeship/Paid Work Placement Opportunities)	340009
Media Arts Primer	340110
Media Arts Writing	340115
Digital Image Editing (CTAG/College Credit 3-semester hours available)	340120
Motion Graphics	340125
Audio Broadcast	340130
Musical Engineering	340135
Video Broadcast	340140
Video Production	340145
Photographic Composition	340150
Photography Production	340155
Multi-Media Web Production	340160
Digital Cinema	340165
Musical Concept	340235

Digital Image Editing – 1.25 Credit - MCHS Offered in 2020-2021 School Year
Subject Code: 340120
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

    e) Students must pass the corresponding End-of-Course (WebXam[tm]) examination with a qualifying score of 44 or higher.
    f) Students must work with their secondary institution to ensure that their official high school transcript, official WebXam[tm] score, and the (CT)[2] Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
    g) Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

This class will utilize Adobe Photoshop (most current version available).

This course focuses on manipulating images for final output through print and Web-based production. Students obtain a brief perspective on analog image editing and delve into the world of editing digital photos, illustrations and other artwork. They learn to adjust resolution and exposure, modify color, compress data and format and manage files. Students will use problem-solving strategies and work collaboratively to complete the creative process with artists, printers and Web developers.

Video Production – 1.25 Credit - MCHS Offered in 2020-2021 School Year
Subject Code: 340145
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Photography Production - 1.25 Credit - MCHS Offered in 2020-2021 School Year
Subject Code: 340155
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students advance their digital photographic knowledge and skill using camera raw files with a focus on commercial use and knowledge of production software. Emphasis is on creative expression and client communication to increase marketability of product. Topics include white balance, saturation, contrast and color correcting. Students apply copyright and fair use guidelines.

Multi-Media Web Production - 1.25 Credit - MCHS Offered in 2020-2021 School Year
Subject Code: 340160
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Photographic Composition – 1.25 credit – MCHS GRADE 7-12 Offered in 2020-2021 School Year
Subject Code 340150
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Aesthetics and techniques are essential to producing a good photograph. This course focuses on capturing and manipulating images in digital photography with some skill development in printing and enlarging.

Topics include camera functions, mechanics of image capture, image manipulation, and print production. Students shoot photographs in various studio and indoor and outdoor settings.

Media Arts Primer – 1.25 Credits GRADE 7-10 Offered in 2020-2021 School Year
Subject Code: 340110

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

In this first course of the Media Arts pathway students will learn the basics of how to convey messages through journalism, commercial advertising and marketing. They review the accuracy and impact of words and visuals used in news, advertisements and commercials. They learn essential terminology and basic tools for delivering messages. They understand the content length, deadlines and responsibilities of various delivery channels.

Business of Arts and Communications
Subject Code: 340006

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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.

Arts and Communication Capstone
Subject Code: 340009

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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.

Arts and Communication Capstone
Subject Code: 340009

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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.

Media Arts Writing

Subject Code: 340115
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Copy for news stories, technical journals, advertisements and social media has similarities and differences. This course focuses on creating and adapting content for multiple purposes with print, radio, TV and the Web. Students conduct and synthesize research and interviews to write persuasive and unbiased copy. They evaluate and edit text for purpose, style, space limitations and accuracy. They accentuate messaging with design elements. Strategies to determine audience impact are engaged.

Motion Graphics
Subject Code: 340125
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

From script to storyboard and special effects, students develop products focused on a central theme and purpose. Using commercial and open-source digital animation software, they create an illusion of motion that extends beyond traditional frame-by-frame footage. They learn skills and techniques involving music, animation, text, voice, photos and videos. Products are adjusted for access through computers, mobile devices, game consoles, projectors, radio and TV.

Audio Broadcast
Subject Code: 340130
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2) Successfully complete secondary course and earn a qualifying score of 77 or higher on the corresponding end-of-course examination.

NOTE: The coursework identified in this CTAN is guaranteed to transfer and may apply toward a Bachelor of Arts (BA) or Bachelor of Science (BS) in a Media Arts degree. It is not guaranteed to count for credit to count toward a Bachelor of Fine Arts (BFA) in Media Arts.

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.

Musical Engineering
Subject Code: 340135
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students put music theory and basic music skill into practice as they engineer sound for live and recorded production. They create, capture, edit, mix and synchronize music into audio and video tracks of various formats. Topics include acoustics, reflection, absorption of sound and reverberation. Students create products based on research of audience sensitivity and need and do so in compliance with laws related to intellectual property and competition.

Video Broadcast
Subject Code: 340140
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Multi-Media Web Production
Subject Code: 340160
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2) Successfully complete secondary course and earn a qualifying score of 53 or higher on the corresponding end-of-course examination.

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.

Digital Cinema
Subject Code: 340165
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

 Inspiration, technique and trends are the focus of this single-camera, cinema-style course. Students engage in creative storytelling through concept development, scriptwriting and storyboarding. They learn to achieve the look of film through lighting and camera technique as well as double-system audio capture. Legal and ethical aspects such as copyright and fair use guidelines are learned.

BUSINESS AND ADMINISTRATIVE SERVICES, FINANCE AND MARKETING CAREER FIELD AND PATHWAYS

The Business Management and Administrative Services Finance and Marketing Career Fields prepare students for careers in various business disciplines across a variety of industries important to the economic vitality of the State of Ohio. Students may also pursue entrepreneurship within a specific discipline.

Business Management and Administrative Services Pathway

The Business Management and Administrative Services program areas will prepare students for technical and professional level careers in business management, human resources, operations management, distribution and logistics, supply chain and legal or medical office management.

Careers for which this pathway prepares students include:

Business Information Specialist	Project Coordinator
Customer Service Associate	Records Manager
Distribution Manager	Small Business Owner
Medical Billing and Coding	Supply Chain Associate
Associate Office Manager	Training Specialist
Product Associate	Transportation Manager

Postsecondary majors for which this pathway prepares students include:

Business Administration or Management	Medical Coding
Business Information Systems	Office Administration
Entrepreneurship	Operations Management
Human Resources Management	Project Management
International Business	Supply Chain Management

Finance Pathway

The Finance program areas will prepare students for technical and professional level careers in financial and operational accounting, financial and investment planning, banking, insurance and business financial management.

Careers for which this pathway prepares students include:

Benefits Manager	Customer Service Representative
Cash Manager	Financial Analyst
Claims Adjuster	Financial Planner
Compliance Associate	Loss Control Manager

Small Business Accounting   Treasury Associate

Postsecondary majors for which this pathway prepares students include:

Accounting   Financial Services
Business Analysis   Insurance Management
Economics   Information Systems
Finance   Real Estate and Urban Analysis

Courses in Business and Administrative Systems Pathway

Pathway Courses	Subject Code
Medical Terminology for Business	142050
Medical Terminology (CTAG/College Credit-3 semester hours available)	072150
Business Foundations	141000
Business Applications and Economics	141005
Business Administration Marketing	141010
Business Administration Finance	141015
Business Administration Strategic Management	141020
Management Principles	141025
Strategic Entrepreneurship (CTAG/College Credit 3-semester hours available)	141030
International Business	141035
Fundamentals of Business and Administrative Services	142000
Office Management (CTAG/ College Credit 3-semester hours available)	142005
Legal Environment of Business	142010
Medical Office Management (CTAG/College Credit 3-semester hours available)	142015
Operations Management (CTAG/ College Credit 3-semester hours available)	142020
Supply Chain Management (CTAG/ College Credit 3-semester hours available)	142025
Logistics Management (CTAG/ College Credit 3-semester hours available)	142030
Human Resource Management	142035
Business Informatics	142040
Business and Administrative Services Capstone (Apprenticeship/Paid Work Placement Opportunities)	142045
Financial Accounting	143005
Managerial Accounting	143015
Fundamentals of Financial Services	143020
Marketing Principles	144000

Digital Marketing and Management	144015
Finance Foundations	143000
Professional and Technical Sales	144030

Courses in Finance Pathway

Pathway Courses	Subject Code
Business Foundations	141000
Management Principles	141025
Strategic Entrepreneurship (CTAG/College Credit 3-semester hours available)	141030
International Business	141035
Human Resource Management	142035
Business Informatics	142040
Finance Foundations	143000
Financial Accounting	143005
Corporate Finance	143010
Managerial Accounting	143015
Fundamentals of Financial Services	143020
Financial Services Operations	143025
Finance Capstone (Apprenticeship/Paid Work Placement Opportunities)	143030
Marketing Principles	144000
Marketing Applications	144005
Fundamentals of Business and Administrative Services	142000
Professional and Technical Sales	144030

Financial Accounting – 1 credit
Course Code: 143005
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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.

Managerial Accounting
Course Code: 143015

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will use financial information to make strategic business decisions. They will monitor business profitability, measure the cost-effectiveness of expenditures, prepare budget and forecast reports, and set achievable business financial goals. Students will also use critical information on financial documents to determine risks to short-term and long-term business success. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Fundamentals of Financial
Services Course Code: 143020
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC
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. Technology, employability skills, leadership and communications will be incorporate in classroom activities.

Business Foundations – 1 Credit - will meet financial literacy requirement for graduation
Course Code: 141000
GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

Introduction to Business is a course consisting of various business procedures, a general knowledge of which can be helpful for all business subjects that follow. The purpose of this course is to introduce students to the many different aspects in the business field. This course explores the business transactions that affect our well-being as citizens, workers and consumers in the United States as well as in our global world economy and also includes other topics such as the use of credit, rate of interest, purchasing of insurance, budgeting, banking and the buying power of a dollar. Career exploration is a vital component of this course.

Financial Services Operations – 1 credit
Course Code: 143025
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will plan, organize, and carry out day-to-day activities unique to the banking, insurance and investment industries. They will learn to underwrite loan and insurance applications, handle problem accounts, and investigate and process insurance claims. Students will also evaluate risks faced by financial institutions and develop processes to promote ethically and legally compliant behavior throughout a banking, insurance or investment company. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Corporate Finance – 1 credit
Course Code: 143010
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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.

Finance Capstone
Course Code: 143030
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in a Finance 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.

Marketing Applications – 1 credit
Course Code: 144005
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will develop and implement marketing strategies and techniques across marketing functions: channel management, marketing research, market planning, pricing, product/service management and branding. They will use marketing operations procedures and activities to ensure marketing's efficiency and effectiveness. Students will generate, screen, and develop new product ideas. They will predict economic trends and conditions and determine how cultural intelligence can impact organizations. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Business Foundations – 1 credit
Course Code: 141000
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS   ☐SHCC

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.

Fundamentals of Business and Administrative Services – 1 credit
Course Code: 142000

GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☒RHS ☐SHCC

This is the first course specific to the Business and Administrative Services career field. It introduces students to the specializations offered in Business and Administrative Services. Students will obtain fundamental knowledge and skills in general management, human resources management, operations management, business informatics and office management. They will acquire knowledge of business operations, business relationships, resource management, process management and financial principles. Students will use technological tools and applications to develop business insights.

Management Principles – 1 credit
Course Code: 141025

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply management and motivation theories to plan, organize and direct staff toward goal achievement. They will learn to manage a workforce, lead change, and build relationships with employees and customers. Students will use technology to analyze the internal and external business environment, determine trends impacting business, and examine risks threatening organizational success. Ethical challenges, project management and strategic planning will also be addressed.

Human Resource Management – 1 credit
Course Code: 142035

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will develop human resources strategies to obtain, retain, and effectively use talent throughout the organization. Students will utilize technology to create job applications, job descriptions, and job profiles to support the talent acquisition process. They will learn to recruit applicants, administer employment assessments, conduct background investigations, and make and communicate hiring decisions. Students will also develop employee handbooks and establish performance improvement processes. Rewards and recognition practices, relationship management and compliance will be addressed.

Office Management – 1 credit
Course Code: 142005

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

2. Successfully complete secondary course and earn a qualifying score of 54 or higher on the corresponding End of Course examination

Students will apply techniques used to manage people and information in a business environment. Students will learn to build relationships with clients, employees, peers and stakeholders and to assist new employees. They will manage business records, gather and disseminate information, and preserve critical artifacts. They will also examine contracts, internal controls and compliance requirements. Business office tools and applications will be emphasized.

Medical Office Management – 1 credit
Course Code: 142015
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2. Successfully complete secondary course and earn a qualifying score of 67 or higher on the end-of-course examination.

Students will carry out procedures used to manage people and information in medical offices. Students will code medical procedures in accordance with applicable guidelines as well as use technology to convert patient information to electronic medical records. They will also manage the insurance billing and collection process, utilize a patient scheduling and registration system, and develop a compliance program. Medical office safety and security will be emphasized.

Medical Terminology – 1 credit
Course Code: 072150
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the End of Course examination.

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. Further, students will interpret and translate medical records and documents.

Legal Environment of Business – 1 credit
Course Code: 142010
GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will examine all aspects of business law including the judicial system, differences between types of laws and origins of laws, administrative and employment laws and laws impacting individuals as well as businesses. Students will also research real estate and debtor and creditor laws and regulations. Students will learn to support attorneys by conducting legal research and preparing fully-compliant legal documents. Compliance and contract law will be emphasized.

Operations Management – 1 credit
Course Code: 142020
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

3. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
4. Successfully complete course and earn a qualifying score of 60 or higher on the corresponding end-of-course examination.

Students will learn to plan, organize, and monitor day-to-day business activities. They will use technology to plan production activities, forecast inventory needs, and negotiate vendor contracts. Students will also calculate breakeven, set cost-volume-profit goals, and develop policies and procedures to promote workplace safety and security. They will design sustainability plans and use lean and six sigma principles to plan for quality improvement. Corporate social responsibility, ethics, risk management and compliance will be emphasized.

Supply Chain Management– 1 credit
 Course Code: 142025
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2. Successfully complete course and earn a qualifying score of 73 or higher on the corresponding end-of-course examination.

Students will determine how to facilitate the flow of goods from the point of origin to the point of consumption. Students will utilize technology to track supply chains and measure their effectiveness and efficiency. They also will identify opportunities to improve service levels, quality and costs through supply chains and select strategies for improving customer and supplier relationships. International business, business process analysis, project management, internal controls and compliance will be emphasized.

Logistics Management – 1 credit
Course Code: 142030
GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will develop plans and networks to move materials, information, products and services through organizations. Students will analyze transportation cost structures and reverse logistics' costs. They will utilize technology to evaluate warehouse size and space layouts. Students will also design receiving and fulfillment processes and develop preventive maintenance schedules. Requirements for the treatment, storage, and disposal of hazardous materials will be emphasized. Project management techniques and international business will be examined.

Strategic Entrepreneurship – 1 credit
Course Code: 141030
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Business Applications and Economics– 1 credit
Course Code: 141005
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will develop fundamental knowledge and skills in business administration. They will examine business activities, business processes and forms of business ownership. Students will acquire an understanding of economic principles such as supply and demand, division of labor and competition. They will identify current trends, issues and conditions impacting business and determine the impact of the global environment on business operations. Innovation, technology, leadership and communications will also be addressed.

Business Administration Marketing – 1 credit
Course Code: 141010
GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will obtain fundamental knowledge of marketing activities, including sales channels, marketing-information management, marketing research, market planning, marketing communications, pricing, product and service management, branding and selling. They will conduct marketing research, identify target markets, conduct market and competitive analyses, forecast sales, set marketing goals, establish a marketing budget and develop a marketing plan. Legal and ethical issues in marketing will be addressed. Employability skills, technology, leadership and communications will be incorporated in classroom activities.

Business Administration Finance – 1 credit
Course Code: 141015
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

 Students will develop knowledge and skills in financial analysis, financial reporting and corporate investments. They will predict corporate performance and profitable investments using financial statements, ratio analysis and other financial analysis techniques. They will calculate cash needs using the time value of money and track, record and summarize a business's financial transactions. Compliance, internal controls, business governance and personal financial management will be addressed. Technology, employability skills, leadership and communications will be emphasized.

Business Administration Strategic Management– 1 credit
 Course Code: 141020
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Business and Administrative Services Capstone
Course Code: 142045
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply knowledge, attitudes and skills that were learned in a Business and Administrative Services program in a more comprehensive and authentic way in this capstone course. 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.

International Business – 1 credit
Course Code: 141035
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will evaluate global business strategies and market-entry methods for conducting business internationally. They will use technology to determine the impact of government, economics, geography, history, ethics and digital communication tools on global trade. Management of sourcing and procurement, quality, distribution and supply chain in a global environment will be emphasized. Students will identify financing options for international operations. They will also analyze the competitiveness of U.S. companies in the international marketplace.

Marketing Principles – 1 credit
Course Code: 144000

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This is the first course in the Marketing career field. It introduces students to the specializations offered in Marketing. Students will obtain fundamental knowledge and skills in marketing communications, marketing management, marketing research, merchandising 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.

Professional and Technical Sales – 1 credit
Course Code: 144030

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students will demonstrate sales processes and techniques used in a business-to-business environment. They will develop, grow, and maintain positive business relationships. Students will monitor trends and the business environment to determine the impact on their sales, customers, and competitors. They will negotiate and adjust prices and sales terms. Students will manage sales activities and territories. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Digital Marketing and Management – 1 credit
Course Code: 144015

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply tools, strategies and processes to communicate digitally with targeted customers. They will create, implement, and critique online advertising, email marketing, websites, social media, mobile marketing, search-engine optimization, video or images and podcasts/webcasts. Students will apply project management techniques to guide and control digital communications efforts. They will also create and repurpose content for use in digital environments. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Finance Foundations – 1 credit
Course Code: 143000

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This is the first course specific to Finance. It introduces students to the specializations offered in the career field. Students will obtain fundamental knowledge and skills in accounting, banking services,

corporate finance, insurance, and securities and investments. They will acquire knowledge of financial analysis and application, business law and ethics, economics, international business and business relationships. Knowledge management and information technology will be emphasized. Employability skills, leadership and communications will be incorporated in classroom activities.

Financial Accounting – 1 credit
Course Code: 143005

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Managerial Accounting – 1 credit
Course Code: 143015

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will use financial information to make strategic business decisions. They will monitor business profitability, measure the cost-effectiveness of expenditures, prepare budget and forecast reports, and set achievable business financial goals. Students will also use critical information on financial documents to determine risks to short-term and long-term business success. Technology, employability skills, leadership and communications will be incorporated in classroom activities.

Fundamentals of Financial – 1 credit
Services Course Code: 143020

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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. Technology, employability skills, leadership and communications will be incorporate in classroom activities.
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CONSTRUCTION TECHNOLOGIES CAREER FIELD AND PATHWAY

The Construction Technologies Career Field prepares students for careers in designing, planning, managing, building and maintaining commercial, industrial and residential structures and

infrastructures. Students in the Construction Technology career field may continue into registered apprenticeship or traditional postsecondary programs. Apprenticeship opportunities may be found at the Ohio State Apprenticeship Council website (http://jfs.ohio.gov/apprenticeship/index.stml).

Design Pathway

Design program areas will prepare students for careers dealing with construction design, facility maintenance, construction management and site safety and heavy equipment operations.

Careers for which this pathway prepares students include:

Architectural Designer
Interior Designer
Civil Drafting Engineering
Project Manager
Custodian Site Manager

Facility Maintenance Technician/Manager
Site Safety Coordinator
Heavy Equipment Operator
Surveyor

Postsecondary majors for which this pathway prepares students include:

Architectural Drafting
Building/Construction Site Management/Manager
Construction Management

Heavy/Industrial Maintenance
Equipment Technologies
Interior Design

Structural Pathway

Structural program areas will prepare students for careers in occupations related to Carpentry and Masonry construction and maintenance.

Careers for which this pathway prepares students include:

Brick, Block and Cement Mason
General Contractor
Carpenter
Remodeler

Drywall Technician
Roofer
Flooring Specialists

Postsecondary majors for which this pathway prepares students include:

Building Construction Technology
Cabinetmaking and Millwork

Construction Trades
Structural Engineering

Courses in Structural Systems Pathway

Pathway Courses	Subject Code
Construction Technology – Core and Sustainable Construction	178000
Fundamentals of Architecture and Construction	178040
Principles of Woods Construction	178030
Carpentry and Masonry Technical Skills (CTAG/College Credit 3-semester hours available)	178001
Mechanical, Electrical and Plumbing Systems	178002
Structural Systems	178003

Structural Coverings and Finishes	178004
Masonry-Brick and Block	178005
Concrete and Residential Masonry	178006
Construction Electrical Systems	178007
Residential Electrical Systems	178008
Residential and Commercial Plumbing Systems	178011
Construction Safety and Crew Leadership (CTAG/College Credit 3-semester hours available)	178018
Plan Reading (CTAG/College Credit 3-semester hours available)	178019
Construction Management	178022
Remodeling/Renovation	178023
Heavy Equipment Operations	178026
NEW Construction Surveying and Site Logistics	178027
Construction Capstone	178029

Courses in Construction Design and Management Pathway

Pathway Courses	Subject Code
Construction Technology – Core and Sustainable Construction	178000
Fundamentals of Architecture and Construction	178040
Principles of Woods Construction	178030
Carpentry and Masonry Technical Skills (CTAG/College Credit 3-semester hours available)	178001
Mechanical, Electrical and Plumbing Systems	178002
Construction Electrical Systems	178007
Heating and Cooling Systems	178012
Construction Safety and Crew Leadership (CTAG/College Credit 3-semester hours available)	178018
Plan Reading (CTAG/College Credit 3-semester hours available)	178019
Architecture Design - Structural and Mechanical/Electrical/Plumbing	178020
Architecture Design - Site and Foundation Plans	178021
Construction Management	178022
Remodeling/Renovation	178023
Facility and Building Maintenance	178024
Heavy Equipment Operations	178026
NEW Construction Surveying and Site Logistics	178027

| Interior Design | 178028 |
| Construction Capstone | 178029 |

Construction Technology – Core and Sustainable Construction
Subject Code: 178000
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Carpentry and Masonry Technical
Skills Subject Code: 178001
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
4. Successfully complete secondary course.

This first course in the pathway will introduce to students the materials, methods, and equipment used in carpentry and masonry. 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. Current advancements in technology, safety, applicable code requirements and correct practices are learned.

Mechanical, Electrical and Plumbing Systems
Subject Code: 178002
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students learn physical principles and fundamental skills across mechanical systems in construction. Students will select materials, assemble, and test basic electrical circuits. Students will select materials and assemble simple copper and plastic plumbing applications for both supply and drains. They will perform simple maintenance of electric motors, electric fixtures and plumbing fixtures. Students will be able to select and install basic ductwork components and learn the operation and maintenance of heating and cooling equipment.

Structural Systems
Subject Code: 178003
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Structural Coverings and Finishes
Subject Code: 178004
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

 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.

Masonry-Brick and Block
Subject Code: 178005
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

The focus of this course will be on the technical aspects of masonry with emphasis on developing introductory skills in laying block and brick. They will learn the physical attributes of masonry materials and the tools required in masonry construction. Students will learn the principles necessary to construct structures with a variety of brick and block materials. Throughout the course, the safe handling of materials and personal safety are emphasized.

Concrete and Residential Masonry
Subject Code: 178006
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students will learn to read and interpret construction plans and drawings for masonry applications. They will learn to select materials based on physical attributes and job requirements. Students will set grades and construct forms, for concrete foundations, footings, and retaining walls. They will mix, reinforce, pour and finish concrete in various residential and commercial applications.

Construction Electrical Systems
Subject Code: 178007
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This introductory electrical course will emphasize electrical theory, materials, equipment. Students will explore the National Electrical Code and learn worksite safety. They will interpret schematics; construct basic circuits, use test equipment and electrical hand and power tools.

Residential Electrical
Systems Subject Code: 178008

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course will emphasize electrical theory, materials, equipment and general methods used in residential construction. Students will navigate the National Electrical Code, learn worksite safety and understand licensing and permitting requirements. They will interpret plans and job specifications and calculate loads and service requirements. Students will install, test and repair receptacle outlet, lighting and small appliance circuits. They will understand circuit protection concepts and install a subpanel. Specialty circuit installation will be addressed.

Pipefitting and Plumbing Systems
Subject Code: 178010

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course will emphasize the physical principles, general methods, materials and equipment used in the plumbing and pipefitting. Students will learn worksite safety and understand licensing and permitting requirements. They will interpret plans and job specifications and calculate service requirements. Students will rough in water supply and drainage lines following plumbing codes and municipal building standards. Additionally, students will install and maintain plumbing fixtures.

Residential and Commercial Plumbing Systems
Subject Code: 178011

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course focuses on the advanced residential and commercial plumbing systems. Students will plan, install, and maintain water supply, wastewater and fuel supply components following codes and municipal building standards.

Heating and Cooling Systems
Subject Code: 178012

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply principles of heating and cooling to the installation, troubleshooting and maintenance of residential and commercial Heating, Ventilation, and Air conditioning/Refrigeration (HVAC/R) Systems.

HVAC Refrigeration

Subject Code: 178013
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will install, troubleshoot and service residential and commercial refrigeration systems. Students will learn laws of thermodynamics, pressure and temperature relationships, the refrigeration cycle, and refrigerant management. Students will address hydronic systems, chilled water systems, package units, and cooling towers.

Sheet Metal
Subject Code: 178014
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

The fundamentals of the sheet metal trade are the emphasis of this course. Students will learn components of a ductwork system and use architect and engineer's scales to read and interpret construction drawings for material calculations and selection. Students will layout sheetmetal patterns using parallel line, radial line, and triangular development procedures. Students will, also fabricate edges, joints, seams, and notches; seal and insulate; and install ductwork systems and accessories.

Alternative Power Generation Systems
Subject Code: 178016
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn the technology and applications of solar and wind energy with an emphasis on installation and service processes. Content includes identifying the functions of photovoltaic, standby power and electric storage systems. Students will perform battery maintenance and implement principles and guidelines of energy analysis needed to carry out effective energy audits in accordance with standards and codes.

Powerline/Hi-Voltage Power Transmission
Subject Code: 178017
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course focuses on the principles of hi-voltage power transmission. Students use code to build, maintain and repair both aboveground and belowground electrical transmission systems. Students will apply specific rigging techniques and equipment to field situations. Emphasis is placed on safety around high voltage equipment.

Construction Safety and Crew Leadership
Subject Code: 178018
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course covers OSHA standards (30-hr OSHA) and requirements as they apply to the construction industry and crew/project management. Topics include safety and health hazards, safe practices, construction safety management, and crew management. Emphasis is on hazard identification, avoidance, control and prevention.

Plan Reading and Estimating
Subject Code: 178019

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

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 and develop an estimate of material, time, personnel, and equipment needs, availability, and cost. Using construction plans, students will identify problems or shortcomings related to the layout and installation of materials for the project.

Architecture Design – Structural and Mechanical/Electrical/Plumbing
Subject Code: 178020

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will use architecture design principles to organize and arrange structures to create a perspective of a building. Students will use orthographic/pictorial projection, freehand technical sketching and computer-aided drafting (CAD) skills to generate floor and wall plans, elevations, sections, details and schedules. Students will develop sets of structural framing and mechanical working drawings that include plumbing, HVAC and electrical power and lighting plans.

Architecture Design – Site and Foundation Plans
Subject Code: 178021

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students use advanced architectural design concepts to construct design models including perspective drawings for final presentations. Students use orthographic/pictorial projection, freehand technical sketching and computer- aided drafting (CAD) tools to create site foundation and section plans that include topographical details and schedules. Additionally, students

perform zoning analysis, develop preliminary plot plans, and construct grading and utilities plans that include legal descriptions and cut and fill volumes.

Construction Management
Subject Code: 178022
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course provides an integrated look at balancing the planning, estimating, and directing of construction operations. Students learn the process of creating and monitoring a construction project including standard agreements, bidding, estimates and project schedules. Students will learn to manage change orders, accident prevention and loss control, closeouts, and claims with an emphasis in production and quality control. Additionally, students will apply leadership, communications, and problem-solving skills to construction management.

Remodeling/Renovation
Subject Code: 178023
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Facility and Building Maintenance
Subject Code: 178024
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students are introduced to the maintenance and management processes used in public buildings and industrial facilities. Students will troubleshoot building and systems issues and provide solutions following applicable procedures and standards. Students will operate and maintain machinery and equipment used in grounds and facilities maintenance tasks. Throughout the course, the safe handling of materials, personal safety, prevention of accidents and the mitigation of hazards are emphasized.

Heavy Equipment Operations
Subject Code: 178026
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students perform heavy equipment operating techniques and perform operator level maintenance. Students will learn to survey using lasers, transits and machine control systems. Additionally, students learn the techniques and processes for clearing, grubbing, stripping,

excavating, backfilling, stockpiling, and cutting and spreading of fill material. Throughout the course, safety is emphasized.

Construction Surveying and Site Logistics
Subject Code: 178027
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students use surveying, topographic, satellite positioning, and geomatic instruments to locate and prepare a site for construction. Students establish lot and building lines as well as grade levels, and use site plans and elevation drawings to determine excavation needs. Students locate and mark underground and overhead services, identity soil conditions that may require shoring and position batter boards. Additionally, students identify the parameters for site selection, zoning regulations, and the process for filing building permits.

Interior Design
Subject Code: 178028
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students learn principles and elements of design as they relate specifically to interior spaces. Students develop functional and aesthetic design concepts with an emphasis in providing design solutions. Students select materials for appropriateness, quality, performance, and cost for interior applications. Students develop an estimate of material, time, personnel, equipment needs and cost and use presentation techniques, technical drawings and other visual materials to enhance and present interior designs.

Construction Pre-Apprenticeship/Capstone
Subject Code: 178029
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Construction programs 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.

Principles of Wood Construction
Subject Code: 178030
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will engage in the introductory skills utilized in working with various wood construction materials. They will l earn to use basic measuring tools, hand tools and machines, common to the wood industry, to construct basic projects. Additionally, students will examine

various wood construction materials and their properties. Throughout the course, students will learn components of site and personal safety.

Fundamentals of Architecture and Construction
Subject Code: 178040
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this first course in the career field, students will be introduced to the basic principles of architecture and construction. During this course, students will read and create construction drawings and use hand tools to create basic construction projects and models. Throughout the course, students will use hands-on skills and procedures in a laboratory setting. Additionally, students will investigate career opportunities in construction and architecture related fields.

FAMILY AND CONSUMER SCIENCES
PATHWAY AND COURSES

Family and Consumer Sciences (FCS) is a set of courses that draws from a range of disciplines and contexts (education, business, social, economic, cultural, technological, geographical, political) to achieve optimal and sustainable living for individuals, families and communities.

The FCS curriculum is structured in to one pathway. The pathway has been divided in to clusters of courses based on their subject content and standards. Courses listed below have been identified as the recommended FCS program of study, that was developed from industry validated skills from initial employment of the continuation of education.

Courses in Food and Nutrition

PATHWAY COURSES	SUBJECT CODE
Principles of Food	091205
Global Foods	091210
Food Sciences	091215
Culinary Fundamentals	091220
Principles of Nutrition and Wellness	091225
Introduction to Family and Consumer Sciences Education	091201

Courses in Human Services

PATHWAY COURSES	SUBJECT CODE
Personal Wellness and Development	093005
Personal Wellness	093010
Human Growth and Development	093015
Child Development	091025
Introduction to Family and Consumer Sciences Education	091201

Courses in Career and Individual Development

PATHWAY COURSES	SUBJECT CODE
Transitions and Careers	091410
Personal Finance Management	091052
Consumer Economics	091053
Career and College Readiness	091402
Leadership and Community Engagement	091403
Introduction to Family and Consumer Sciences Education	091201

Courses in Environmental Design

PATHWAY COURSES	SUBJECT CODE
Textile and Interior Design	091500
Interior Design, Furnishings and Management	091501
Textile Design, Construction and Maintenance	091505
Introduction to Family and Consumer Sciences Education	091201

Introduction to Family and Consumer Sciences – **.5 credit** (Recommended as an introductory course)
Course Code: 091201
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS   ☒MCHS ☒RHS   ☐SHCC

This first course will provide students with an overview of the four major content areas of Family and Consumer Sciences. Students will be introduced to child development, family relationship concepts and how they relate to family dynamics. Additionally, students will identify financial literacy and consumer economic principles. Students will understand

the concepts of design through textiles for personal and home use. Throughout the course, students will develop communication, leadership and career investigation skills.

Personal Financial Management– .5 credit
Course Code: 091052

GRADE OFFERING   ☐9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS   ☒MCHS   ☒RHS   ☐SHCC

Prerequisite: None – recommended for all sophomores
Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

   a) Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
   b) Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
   c) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.

In this course, students will develop personal financial plans for individual well-being. Throughout the course, students will develop financial literacy skills to provide a basis for responsible citizenship and career success. Additional topics will include analyzing services from financial institutions, consumer protection, investing and risk management.

Human Growth and Development – .5 Credit
Course Code: 093015

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☐RHS   ☐SHCC

In this course, students will analyze human growth and development throughout the lifespan. An emphasis will be placed on physical, cognitive, social and emotional growth and development. Additional topics will include human characteristics and traits, genetic defects, parenting styles and responsibilities and cultural differences within a family unit and community

Child Development– .5 credit
Course **Code: 091025**

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☒RHS   ☐SHCC

In this course, students will study the principles of child growth, development and behavior. An emphasis will be placed on the cognitive development of a child and sensory and motor skills. Additional topics will include childhood diseases, immunizations, theories of development, learning styles and evaluating childcare services.

Principles of Food– .5 credit
Course Code: 091205

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

In this course, students will gain knowledge in food selection criteria and apply preparation methods to promote a healthy lifestyle. Students will apply cooking methods, ingredient selection and nutritional information in the context of selected food dishes. Throughout the course, basic food safety and sanitation techniques will be emphasized.

Food Science (formerly known as Principles of Food II) - .5 Credit
Course Code: 091215
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

In this course, students will apply basic culinary practices and understand how flavor, texture and appearance are affected during food preparation. Students will evaluate chemical reactions as they occur in cooking methods and assess how to control high-risk food safety situation. Food safety and sanitation techniques will align to industry-recognized certifications.

Culinary Fundamentals
Course Code: 091220
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

In this course, students will apply fundamental culinary techniques, such as knife handling skills and the recognition, selection and proper use of tools and equipment. An emphasis will be placed on mise en place, the management of time, ingredients and equipment. Students will apply standard recipe conversions using proper scaling and measurement techniques.

Career & College Readiness– .5 credit
Course Code: 091402
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

In this course, students will develop effective learning strategies and skills to provide a strong foundation for successful lifelong learning. Throughout the course, students will research careers and occupations, review postsecondary admissions qualifications, develop interviewing skills and participate in internships. Additional topics will include principles and techniques of professionalism, networking, conflict-resolution, negotiation, leadership and entrepreneurship.

Global Foods – .5 credit
Course Code: 091210
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☐MCHS ☒RHS   ☐SHCC

In this course, students will compare cuisines, ingredients and preferred cooking methods of various cultures. The influence of traditions and regional and cultural perspectives on food choices and culinary

practices will be emphasized. Students will examine the issues and conditions that affect the availability and quality of food in the global market, and apply advanced cooking techniques, including the use of specialty and advanced equipment in the preparation of food dishes.

Personal Wellness – .5 credit
Course-Code: 093010

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☐MCHS ☒RHS ☐SHCC

In this course, students will analyze personal physical, emotional, social and intellectual growth for a healthy lifestyle. An emphasis will be placed on lifespan wellness by managing stress through relaxation, physical activity and sleep. Additional topics will include human growth development, mental health management, personal hygiene and preparing for emergency medical situations.

Principles of Nutrition and Wellness – 1 credit
Course Code: 091225

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students will use principles of nutrition to ensure a healthy body throughout the lifecycle. An emphasis will be placed on planning and preparing meals with an understanding of nutrients and their benefits, portion control and dietary needs. Additional information will include steroid and supplemental use, body weight and management and the implementation of physical activity to maintain a healthy lifestyle.

Personal Wellness and Development – 1 credit
Course Code: 093005

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course students will develop a personalized approach to healthy living. An emphasis will be placed on developing personal health for an adolescent that can be used as they transition through life. Additional topics will focus on problem-solving, work ethics, nutritional and food selections, family dynamics and personal health.

Leadership and Community Engagement
Course Code: 091403

GRADE OFFERING   ☐9   ☐10   ☒11   ☒12

BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

In this course, students will learn how to become an active community member and citizen. An emphasis will be placed on in-service learning, leadership training and teambuilding opportunities. Additional topics will include public policy issues, community and global engagement.

Transitions and Careers

Course Code: 091410
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students will analyze interests, aptitudes and skills to prepare for careers and transition through life. An emphasis will be placed on work ethics, team building, communication and leadership skills. Additional topics will include technology etiquette and career planning.

Textiles and Interior Design   credit Grades 7-10
Course Code: 091501
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course students will explore a broad range of topics relating to the various aspects and career opportunities available in the field of textiles and design. The emphasis will be given to textiles project development and developing strategies to maintain the home. Additional topics will include project collaboration, design techniques and environmental sustainability.

Interior Design, Furnishings and Management
Course Code: 091500
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

In this Family and Consumer Sciences career field course, students will examine design principles used in residential interiors. An emphasis will be placed on incorporating anthropometrics, ergonomics and psychological responses. Additional topics will include the selection and organization of furnishings, floors and wall coverings in living spaces, kitchens and baths. Textile Design, Construction and Maintenance Course Code: 091505 In this course, students will study the visual appearance of fabric and fashion design. Students will identify, analyze and apply production processes and techniques to textiles. Additional topics will include the maintenance and alterations of textiles products, including home interior accessories and garments.

The following list of courses are offered at our district high schools.

ENGLISH LANGUAGE ARTS

Suggested ELA Pathway:

➢ **Honors English 9** ⇨ **Honors English 10** ⇨ **AP English 11 or CCP English** ⇨ **AP English 12 or CCP English**

➢ **English 9** ⇨ **English 10** ⇨ **English 11** ⇨ **English 12**

English 9 – 1 credit
Course Code: 051

| GRADE OFFERING | ☒9 | ☐10 | ☐11 | ☐12 |
| BUILDING OFFERING | ☒BHS | ☒MCHS | ☒RHS | ☐SHCC |

Prerequisite: None

This course consists of Literature, Grammar, and Writing. The Literature portion of this class will consist of the genres of short stories, nonfiction, novels, poetry, drama, and Shakespearean drama. The Literature text also includes vocabulary, language lessons and activities. The Grammar portion of the class will consist of grammar review and reinforcement. The Writing portion of the class will consist of various forms of informal and formal writing; such as journals, written responses, and essays, along with a focus on the writing process.

Honors English 9 – 1 credit
Course Code: 0511

| GRADE OFFERING | ☒9 | ☐10 | ☐11 | ☐12 |
| BUILDING OFFERING | ☒BHS | ☒MCHS | ☒RHS | ☐SHCC |

Prerequisite: see Honors Course Policy

Honors English 9 is recommended for students who have demonstrated a strong aptitude and interest in reading, writing, speaking, listening, and cooperative learning activities. Ninth grade Honors English will study classic and contemporary literature. They will experience and analyze diverse genres of Language Arts. Poetry, novels, short stories, drama, research, presentations and essay writing will be the focus. Students will need to do an abundant amount of independent reading and will have many project-based assessments. Students should expect numerous writing assignments as well. The Switzerland of Ohio Local School District adopted text as well as a myriad of technological supplements that will be utilized in instruction to broaden and develop excellent communication skills. *Students will be required to read one or more novels over the summer months prior to freshman year. Students who take this class should be self-motivated.*

Freshman ELA Experience – 1 credit
Course Code: 0512 - Elective Credit
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: None

This course is intended to provide 9th grade students with a more intense focus on Ohio's New Learning Standards for English Language Arts. Students will be provided with intervention to improve ELA skills. Students will earn a full credit for completion and the course will count toward elective credits.

English 10 – 1 credit
Course Code: 053
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: English 9

This course consists of Literature, Writing and state ELA testing preparation. The Literature portion of the class will consist of the genres of short stories, nonfiction, novels, poetry, drama, and Shakespearean drama. The literature text also includes vocabulary, language lessons and activities. The literature text is set up much the same as English 9 text, and is a continuation and building of skills taught in the English 9 course. The writing portion of the class will consist of various forms of informal and formal writing; such as journals, written responses, and essays, along with a focus on the writing process. This course will include more frequent essay assignments than the English 9 course. Grammar concepts, though not a focus in this course, will be practiced and reinforced in less frequent intervals, and only as a review.

Honors English 10 – 1 credit
Course Code: 0531
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: see Honors Course Policy

This course will include the same components as English 10, but will require more independent work from each student. The course will also explore assignments in a more in-depth way, including discussions and projects. The course will also cover more novels and writing assignments than the regular course. This course will challenge students and prepare them for CCP or AP English courses. Students will further develop writing skills through completion of formal academic writing (compare/contrast, informative, persuasive and literary analysis) as well as informal and creative writing assignments (journal entries, short stories and poetry portfolios). Vocabulary acquisition and grammar instruction will be incorporated through reading, writing and extension activities. *Students in Honors*

English 10 may be required to complete a Summer Reading Project, as outlined by the individual instructor.

Sophomore ELA Experience – 1 credit
Course Code: 0532 - Elective Credit
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

This course is intended to provide 10th grade students with a more intense focus on Ohio's New Learning Standards for English Language Arts. This class is intended to provide sophomore students with a more intense focus in weaker areas to better prepare them for ELA courses throughout high school. Students will earn a full credit for completion and the course will count toward elective credits.

English 11 – 1 credit
Course Code: 055
GRADE OFFERING   ☐9   ☐10   ☒11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: English 10

Junior English acquaints students with American Literature from the beginning through the present time. Emphasis is placed upon understanding the material; reading it as a reflection of the times; realizing the importance of the historical and societal background; and studying the various genres of the time periods. Various writing assignments, formal and informal, are given throughout the year to develop and improve composition skills. Writing focuses on practical applications as well as a research paper utilizing MLA format. Vocabulary acquisition, literary analysis, and grammar skills are emphasized throughout the year. Students will submit journals from student and teacher-oriented topics. Students utilize the District approved text as well as various technological and tangible supplements.

AP English Language and Composition – 1 credit
Course Code: 070
GRADE OFFERING   ☐9   ☐10   ☒11   ☐12– based on availability of AP Instructor
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: See AP District Policy requirements

The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays

that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

Students placed in Advanced Placement Language and Composition 11 will be required to complete a Summer Reading Project, as outlined by the instructor.

English 12 – 1 credit
Course Code: 056
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: English 11

English 12 focuses on the study of British Literature. Students will explore literature from various time periods in order to understand how historical backgrounds and cultural values influence texts. As a college preparatory course, English 12 will require students to develop advanced comprehension and analysis skills. Vocabulary acquisition and grammar instruction will be incorporated throughout the year. Students will complete writing assessments through which they will demonstrate understanding of formal academic writing expectations, including MLA formatting. Focus is placed on developing college-level writing and analysis skills.

AP English Literature and Composition – 1 credit
Course Code: 071
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12– based on availability of AP Instructor
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: See AP District Policy requirements

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

Students placed in Advanced Placement Literature and Composition 12 will be required to complete a Summer Reading Project, as outlined by the instructor.

ELECTIVES

Communication/Speech - .5 credits
Course Code: 059 - Elective Credit

GRADE OFFERING ☐9 ☐10 ☐11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Required for all seniors

Communications is a one-semester course in which students will study, analyze and practice the techniques of formal and informal public speaking. Students will study the organizational patterns of formal academic speeches as well as compose and deliver a variety of speeches and presentations. Students will be required to use and professionally incorporate technology into their assignments, as well as, learn and practice proper viewing, listening and critiquing skills throughout the year. Students will be required to complete formal and informal writing assignments.

Theatre Arts I, II, III, and IV – .5 credits each
Course Code: 126, 1262, 1263, and 1264 - Elective Credit

GRADE OFFERING ☒9 ☒10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: None for Theatre Arts I. A grade of "B" or higher and/or teacher recommendation to proceed through 2, 3, and 4.

These courses are designed to provide an introduction to the nature of theatre as a performing art. It will also provide an introduction to the technical elements of theatrical production (e.g., sets, lights, costumes, and sound) and their relation to each other. The courses involve hands-on practical work. Students also consider the major types of theatrical organizations. These courses are intended to be taken in numerical order, requiring a grade of a "B" or higher to continue on to the next class. It is intended that the classes culminate in a live production at the end of each semester.

Yearbook – 1 credit
Course Code: 0581 - Elective Credit

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Teacher Recommendation

The Yearbook course is a yearlong course designed to create, publish and distribute the school's yearbook. Students in this course are required to learn basic elements of design, layout and photography; become familiar with the Jostens Yearbook Avenue and Photoshop programs; learn techniques of selling ads, and then sell ads in the business community and to senior parents; create layouts and complete pages of the yearbook; and distribute the yearbook to the school population. Outside class time is often required for members of the yearbook staff. All staff members must recognize they represent SOLSD, their respective high school, the Yearbook Staff, and the Yearbook Advisors. Students must sign a contract stipulating they will act appropriately and commit their time to the creation of the Yearbook.

Sports Medicine - .5 credits
Course Code: 087

GRADE OFFERING ☐9 ☒10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Health and Biology

The purpose of this course is to provide an overview of the measures for the prevention, management and rehabilitation of athletic related injuries. Students will study basic anatomy as it applies to athletic injuries, protective equipment taping and bracing to protect the injured area and different theories of evaluation and rehabilitation techniques as they apply to athletic injuries. Problems such as nutrition, physical examination, wound care, environmental conditions and therapeutic modalities are discussed.

ACT Prep - .5 credits – Grades 9-12
Course Code: 550A

GRADE OFFERING ☒9 ☒10 ☒11 ☒12

BUILDING OFFERING ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

ACT Prep Course Description: The ACT/College Prep course will emphasize ACT test-taking strategies, specifically math skills, language skills, reading skills, and science-reasoning skills. Students will study and practice listening and note taking techniques, test taking strategies, questioning and thinking skills, information retrieval, pre-ACT test practice, memory technique, reading in the content areas, vocabulary development, and college application completion with the central goal to increase both subtest scores and composite scores. All four ACT subtests will be reviewed: English, Math, Reading, and Science Reasoning.

Journalism - .5 credits
Course Code: 0559 and 05591 Journalism and Social Media I & 2

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

ENGINEERING AND SCIENCE TECHNOLOGIES CAREER FIELD AND PATHWAYS

Courses in Engineering and Design Pathway

Pathway Courses	Subject Code
Engineering Logic	175017
Principles of Manufacturing	176010
Energy Systems Management	010715
Biomedical Engineering	072115
Computer Hardware	145025
Computer Software	145030
Engineering Design (CTAG/College Credit 3-semester hours available)	175001
Engineering Principles (CTAG/College Credit 3-semester hours available)	175002
Manufacturing Operations (CTAG/College Credit 3-semester hours available)	175003
Robotics (CTAG/College Credit 3-semester hours available)	175004
Computer Integrated Manufacturing (CTAG/College Credit 3-semester hours available)	175006
Digital Electronics (CTAG/College Credit 3-semester hours available)	175007
Mechanisms and Drives	175008
Engineering Capstone (Apprenticeship/Paid Work Placement Opportunities)	175009
DC Electronic Circuits (CTAG/College Credit 3-semester hours available)	175105
AC Electronic Circuits	175100

Analog Based Electronic Device	175012
Pre-Engineering Technologies	175015
Machine Tools	176004
Industrial Robotics (Potential CTAG/College Credit 3-semester hours)	176025
Plan Reading (CTAG/College Credit 3-semester hours available)	178019
Architecture Design - Structural and Mechanical/Electrical/Plumbing	178020
Architecture Design - Site and Foundation Plans	178021
Welding Technologies (Potential CTAG/College Credit 3-semester hours)	176009
Aviation (CTAG/College Credit 3-semester hours available)	177013
Computer Numerical Control Technology with Industrial Mills and Lathes (Potential CTAG/College Credit 3-semester hours)	176007
Hydraulics and Pneumatics (CTAG/College Credit 3-semester hours available)	010225

Engineering Design (3D CAD Modeling and Print Reading) – **1.25 credit**

Course Code: 175001

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: None

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Successfully complete secondary course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a qualifying score on the end of course exam.

Students will learn the application of the engineering design process. Topics include work-processes, optimization methods, design optimization and risk management tools. Students will use 2D and 3D modeling software to help them design solutions to proposed problems, document their work and communicate solutions. Additionally, students will interpret industry prints and create working drawings from functional models. Emphasis is given to experimental problem solving in real systems. equipped with additive and subtractive prototyping devices including a laser engraver, 3D Printer, 3D Carving machine, CNC and vinyl printer/cutter. Students will design and model a CO2 powered F1 Race Car and race it on an 80' racetrack.

Engineering Principles (Mechatronics) -–   **1.25 credit**
Course Code: 175002
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Successfully complete secondary course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a qualifying score on the end of course exam.

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.

Industrial Robotics - – 1.25 credit
Course Code: 176025

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of completing the approved secondary program.
   a. Successfully complete the course.
Submitted course work must include proof of a laboratory component.

Computer Numerical Control Technology with Industrial Mills and Lathes - 1.25 credit
Course Code: 176007

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Successfully complete course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a passing score on the end of course exam.

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.

PAES Lab - 1 credit – Grades – MCHS, RHS
Course Code: PAESLAB
Prerequisite: Enrollment upon teacher recommendation in grades 7-12
Students in the Practical Assessment Exploration System (PAES) Lab will acquire knowledge and develop skills while exploring various jobs using real tools while developing proper work behaviors. This

will be presented through small tasks and problem solving situations focused on functional and vocational skills. Students will learn basic general work and life skills through a variety of assessment tools. Students will be engaged through hands-on learning that will provide a pathway to a possible career. Students will be given a variety of tasks to perform relating to a wide array of job skill sets including computer technology, construction/industrial, processing/production, consumer/service, and business/marketing.

Engineering Design – GRADE 7-12
Course Code: 175001
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
4. Successfully complete secondary course.
5. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
6. Earn a qualifying score on the end of course exam.

Students will learn the application of the engineering design process. Topics include work-processes, optimization methods, design optimization and risk management tools. Students will use 2D and 3D modeling software to help them design solutions to proposed problems, document their work and communicate solutions. Additionally, students will interpret industry prints and create working drawings from functional models. Emphasis is given to experimental problem solving in real systems.

Engineering Principles
Course Code: 175002
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Successfully complete secondary course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a qualifying score on the end of course exam.

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.

Manufacturing Operations
Course Code: 175003
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Successfully complete course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a passing score on the end of course exam.

Students will learn the production processes applied across manufacturing operations. Students will be able to demonstrate a broad array of technical skills with an emphasis given to quality practices, measurement, maintenance and safety.

Robotics
Course Code: 175004
GRADE OFFERING   ☐9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Successfully complete course.
2. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
3. Earn a passing score on the end of course exam.

Students will apply the knowledge and skills necessary to program and operate robots, using the teach pendant as the main interface point. Students will learn robotic operations and system configurations. Students will code, compile and debug programs using the robotic programming language.

Computer Integrated Manufacturing
Course Code: 175006
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 60 or higher on the corresponding End of Course examination

In this course, students will be introduced to all aspects of computer-integrated manufacturing. They will learn about robotics and automation, manufacturing processes, computer modeling, manufacturing equipment and flexible manufacturing systems.

Digital Electronics
Course Code: 175007
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

2. Matriculate to an institution of higher education with an approved or comparable program within 3 years of completing the approved secondary program.
   a. Successfully complete the course.
   b. Submitted course work must include proof of a laboratory component.

NOTE: 4 semester hours of credit can be earned for college course CTEET002- Digital Electronics (OET002)

 • Students must include proof of laboratory component with their submission.
Students are introduced to the process of combinational and sequential logic design. The system uses a precise sequence of discrete voltages, representing numbers, non-numeric symbols or commands for input, processing, transmission, storage or display. Engineering standards and methods for technical documentation will also be learned.

Mechanisms and Drives
Course Code: 175008

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☐RHS   ☐SHCC

Students will learn the principles and practices of machine operation and machine applications. They will learn how machine components such as gears, belts, sprockets, bearings, clutches, couplings, springs, etc. contribute to the application for which the machine is designed. They will also examine the basic drives of such mechanisms as electric motors and hydraulic & pneumatic actuators.

Engineering Capstone
Course Code: 175009

GRADE OFFERING   ☐9   ☐10   ☐11   ☒12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☒RHS   ☐SHCC

 The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in an Engineering 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.

Analog Based Electronic Devices
Course Code: 175012

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☐RHS   ☐SHCC

Students are introduced to semiconductor diode applications, other two-terminal devices, thyristors, transistors and field effect transistors. Course includes design and analysis of transistor and FET DC bias circuitry. Operational characteristics and applications of FET and diode switching circuitry are studied. Students will examine rectifier circuits, amplifier circuits and Zener voltage regulation. Emphasis is on component testing and troubleshooting. Pre-

Engineering Technologies
Course Code: 175015

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS   ☐MCHS   ☐RHS   ☐SHCC

Students will acquire knowledge and skills in problem solving, teamwork and innovation. Students explore STEM careers as they participate in a project-based learning process, designed to challenge and engage the natural curiosity and imagination of middle school students. Teams design and test their ideas using modeling, automation, robotics, mechanical and computer control systems, while exploring energy and the environment.

Engineering Logic
Course Code: 175017

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply the processes of digital circuit theory, combinational and sequential logic as it relates to circuit design and operation. Students will identify numbering systems, arithmetic and Boolean operations and apply simplification methods. Emphasis will be given to the analysis of wiring schematics and diagrams for accuracy and function. In addition, students will use electronic components to construct and troubleshoot digital circuits. AC

Electronic Circuits
Course Code: 175100

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn the fundamental principles of electricity with emphasis on AC (alternating current) circuits. They will use concepts of Ohm's Law, the Power Formula and Kirchhoff's Law with series, parallel and series-parallel circuit applications. The relationship between electricity and magnetism and motor theory will also be introduced. The student will master electrical safety, breadboard wiring, basic circuit troubleshooting, operation of function generator, digital multimeter (DMM) and oscilloscope.

DC Electronic Circuits
Course Code: 175105

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Students must matriculate to an institution of higher education with an approved or comparable program within 3 years of completing the approved secondary program.
2. Students must successfully complete the course with a qualifying cut score of 61 or higher on the End-of-Course examination from an approved high school program.
3. Students must include proof of laboratory component with their submission.
4. Students must complete the pre-requisite requirement for College Algebra at the matriculating institution.
   - Students will not receive post-secondary credit for DC Circuits until this pre-requisite is satisfied.

Students will learn the fundamental principles of electricity with emphasis on DC (direct current) circuits. They will use concepts of Ohm's Law, the Power Formula and Kirchhoff's Law with series, parallel and series-parallel circuit applications. The student will master electrical safety, breadboard wiring, basic circuit troubleshooting, operation of DC power supply and digital multimeter (DMM).

Machine Tools
Course Code: 176004

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Computer Numerical Control Technology with Industrial Mills and Lathes
Course Code: 176007

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
4. Successfully complete course.
5. Matriculate to an institution of higher education with an approved or comparable course no later than 3 years after completing the approved secondary program.
6. Earn a passing score on the end of course exam.

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.

Welding Technologies
Course Code: 176009

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education within 3 years of completing the approved program.
2. Successfully complete the course.
3. Earn a passing score on the end of course exam combined with the required performance based assessment.

Students will use fundamental welding principles involving shielded metal arc, oxyacetylene, gas tungsten and gas metal arc welding in the flat, horizontal and vertical positions. An emphasis is given to electrode selection, equipment setup, operating procedures, welding inspection and testing. Students will learn joint designs and layout and will be introduced to welding codes and standards. Additional topics include employability skills and an emphasis will be given to personal safety.

Principles of Manufacturing
Course Code: 176010

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS   ☐SHCC

 Students will apply knowledge and skills required in the application of standard manufacturing practices including planning, design and visualization. Students will learn and apply skills related to interpreting drawings, creating documentation and performing measurements. Additionally, students will use principles and techniques of Computer Numerical Control (CNC), employ scheduling, and practice project evaluation.

Industrial Robotics
Course Code: 176025

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

3. Matriculate to an institution of higher education with an approved or comparable program within 3 years of completing the approved secondary program.
   a. Successfully complete the course.
   b. Submitted course work must include proof of a laboratory component.

Students will apply the knowledge and skills to program, safely operate, and troubleshoot industrial Robots. The students will learn industrial robotic operations and system configurations. Throughout the course, students will code, compile, and debug programs using industrial robotic programming language.

Hydraulics and Pneumatics
Course Code: 010225
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the corresponding End of Course examination

Students will learn to diagnose, repair and rebuild hydraulic systems and their components. Students will learn the physical and mechanical principles of both hydraulic and hydrostatic operating units. Topics include testing system components and properly maintaining hydraulic and hydrostatic circuits. Students will demonstrate contamination control and system cleanliness in both hydraulic and hydrostatic operating systems. Throughout the course, site and personal safety procedures and business practices are reinforced.

Energy Systems Management
Course Code: 010715
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply basic principles of energy accounting, thermodynamics and heat transfer, energy conversion and efficiency to heating, power generation and transportation. Students will apply the principles and practices needed for managing renewable and non-renewable energy resources. Throughout this course, future energy systems and energy use scenarios are investigated, with a focus on promoting the use of renewable energy resources and technologies.

Biomedical Engineering
Course Code: 072115
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students learn medical interventions that extend and improve quality of life including gene therapy, use and development of prosthetics, rehabilitation techniques, and supportive care. Students will use 3D imaging, data acquisition software, and current scientific research to design and develop medical intervention products. Students

will demonstrate current and emerging strategies and technologies used for collecting, analyzing, recording and sharing information. In addition, students will develop leadership and team-building skills that promote collaboration.

Computer Hardware
Course Code: 145025
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1) Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2) Successfully complete the ODE secondary courses and receive a qualifying/passing score on the corresponding ODE "End of Course" examination(s).
   a) Course 1: Computer Software (145030), qualifying score of 60 or higher and
   b) Course 2: Computer Hardware (145025)] qualifying score of 55 or higher.
3) Or, the student must hold the current CompTIA A+ certificate (current exams #220-801 and 220-802 or current equivalent exam).

Students will learn to install, repair, and troubleshoot computer hardware systems. They will perform preventative maintenance practices and learn techniques for maintaining computer hardware security. Communication skills and professionalism in troubleshooting situations will be emphasized.

Computer Software
Course Code: 145030
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 60 or higher on the corresponding End of Course examination

Students will apply knowledge and skills of commercial and open source operating systems in portable, stand alone, and networked devices. Students will install a variety of operating systems manually and using remote assistance. They will learn to configure, modify, and troubleshoot operating systems. Desktop virtualization, system security, and operating system history will be addressed.

Aviation
Course Code: 177013
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

4. Successfully complete secondary course and earn a qualifying score of 74 or higher on the corresponding End of Course examination

In this first course, students apply knowledge of aviation theory and navigation to flight performance and planning. Students will apply principles of simple machines and fluid mechanics to aircraft operations. Identification of aircraft engines and airframe related systems will be emphasized. Weather theories and concepts are used to interpret weather-briefing documents. Additionally, students will distinguish among airport environments, and understand rules, regulations and orders relevant to the airport industry.

Plan Reading
Course Code: 178019
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete secondary course and earn a qualifying score on the End of Course examination.

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.

Architecture Design – Structural and Mechanical/Electrical/Plumbing
Course Code: 178020
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will use architecture design principles to organize and arrange structures to create a perspective of a building. Students will use orthographic/pictorial projection, freehand technical sketching and computer-aided drafting (CAD) skills to generate floor and wall plans, elevations, sections, details and schedules. Students will develop sets of structural framing and mechanical working drawings that include plumbing, HVAC and electrical power and lighting plans.

Architecture Design – Site and Foundation Plans
Course Code: 178021
 GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students use advanced architectural design concepts to construct design models including perspective drawings for final presentations. Students use orthographic/pictorial projection, freehand technical sketching and computer- aided drafting (CAD) tools to create site foundation and section plans that include topographical details and schedules. Additionally, students perform zoning analysis, develop preliminary plot plans

Art I – 1 Credit
Course Code: 021

GRADE OFFERING ☒9 ☒10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: None

In the first course in high school art, the student will be exposed to a variety of media as well as what it takes to skillfully use that media. Using the elements of art and the principles of design as a framework, students will investigate a variety of experiences and concepts. Students explore various two dimensional and three dimensional art media using a variety of expressive and technical ideas.

Art II – 1 Credit
Course Code: 022

GRADE OFFERING ☐9 ☒10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: Art I

In this course, the art student will continue to expand his/her knowledge of the visual arts by learning new techniques and methods, to handle new media and to further his/her understanding of familiar media. In this course, the student will also begin to concentrate on specific media and areas of the visual arts for which he/she feels a preference.

Art III – 1 Credit
Course Code: 023

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: Art I and Art II

In this course, the student will begin to work on an individual basis. By the time the student has reached this level, he/she has become acquainted with and fairly competent in the various media. The student in this class will expand his/her knowledge of the various media and continue with the refinement of techniques.

Art IV– 1 Credit

Course Code: 024

GRADE OFFERING ☐9 ☐10 ☐11 ☒12

BUILDING OFFERING ☒BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: **Art I, Art II, and Art III**

In this final course, the student will work on a very individualized basis. At this level, the student is thoroughly acquainted with the media and techniques available in the Art classes. From this point, the student will work more selectively on problem-type projects of his/her own choosing. Through experimentation, the student will determine the scope and length to which to carry out the project.

Drawing and Painting– 1 Credit
Course Code: 0231
GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: **Art I and Art II**

A continuation of the elements and principles of art, this class is used to develop the skills and sensitivity of drawing in a variety of methods and techniques. Students will increase awareness of composition and skills. This course will rely on the study of theories, methods, and painting techniques for landscapes, still-life and varied compositions with special emphasis on the elements and principles of art in painting. Watercolor, acrylic and oils will be used throughout.

Ceramics I– 1 Credit
Course Code: 0219
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: **None**

The purpose of this course is to give students an extensive experience into the introduction of ceramics. It is the study and use of ceramic procedures and techniques, including hand forming, slab building, tile-making, and an intro to wheel throwing and surface manipulation.

Ceramics II – 1 Credit – Grade 10 - 12 – MCHS
Course Code: 02192
GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: **Ceramics I**

This visual arts course is designed for the continued study and application of problems in wheel-throwing and handbuilding techniques. Students will understand more advanced processes of ceramics and demonstrate greater competency through successful completion of various three-dimensional projects. Students will be expected to show their work at various exhibitions and begin to build a portfolio of their work as a collection of actual pieces and in digital form.

Introduction to Photography I – 1 Credit
Course Code: 0221

GRADE OFFERING   ☐9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☐MCHS ☐RHS ☐SHCC

Prerequisite: **Art I**

Description: This class will be used to develop the skill of photography. Students will be learning photography basics such as aperture and shutter speed, as well as the rule of thirds, composition, studio lighting techniques, landscape and portrait photography. Students will also gain knowledge of basic photography editing tools by exploring Photoshop and other editing software.

AP Arts and Design – 1 Credit
Course Code: 065

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12

BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

FOREIGN LANGUAGE

Spanish Concentration

Spanish I – 1 Credit
Course Code: 065

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

Spanish I is an introductory course that concentrates on listening and speaking skills, with reading and writing appropriate for beginners. All students start at the Novice Low level. Students will be able to express likes, dislikes, wants, and desires in the target-language. They will also be able to describe people, places, and things. Culture within Latin America and Spain will be explored and compared with American culture through exposure to current events, art, music and dance, cinema, food, pastimes, values, holidays, architecture, and language. Participation is a must.

Spanish II – 1 Credit
Course Code: 066

GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Spanish I

Spanish II builds upon the skills students mastered at Spanish I. Emphasis is still centered around listening and speaking, but reading and writing are a bit more complex. Besides mastering the present tense, students will become familiar with and use the 2 past tenses in Spanish. Students will be able to express their daily activities, past activities, and immediate future plans / activities. Cultural activities will still be based upon current events, art, music and dance, cinema, food, pastimes, values, holidays, architecture, and language.
Participation is a must.

Spanish III – 1 Credit
Course Code: 067
GRADE OFFERING ☐9 ☐10 ☐11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Spanish II

Spanish III builds upon the skills students mastered at Spanish II. The class is mostly conducted in Spanish (gradually increases throughout the year). Student work becomes more independent in nature; reading, writing, listening and speaking continue to be integral parts of their course work. Students must read and understand selected pieces of literature and write reflections on various topics. Students will master the 2 past tenses and will become familiar with the future and conditional tenses as well as the subjunctive mood. Students will continue their studies of the Spanish language, history, and culture.

Spanish IV – 1 Credit
Course Code: 068
GRADE OFFERING ☐9 ☐10 ☐11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Spanish III

Spanish IV is more advanced than the previous courses. The last year of the Spanish program focuses on preparing students for world language placement at the college level. The class is conducted mainly in Spanish. Students will continue to study literature, art, and cinema in the target-language. Students will continue to read other topics as well based on history, current events / issues, and cultural differences. All grammatical tenses will be covered in this course.

Latin American/Spanish Culture and Influence – 0.5 Credit
Course Code: 0655
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: None

This course will focus on the cultures and traditions of the Spanish-speaking world, involving the countries and regions within Latin America, Spain, and a part of Africa. As such, the curriculum will include customs, food, geography, history, art, music, film, literature, and current events. While no prerequisites are necessary to take this course, students should expect to be exposed to the Spanish language at times throughout the semester.

French Concentration

Studying French involves learning how to effectively communicate in a variety of cultural circumstances present in the current French speaking world. Whether in French I or French IV, students spend time learning how to actively listen, speak, write, and read in French. Authentic sources are used and emphasis is on what students CAN DO in the target language (French).

Each year, French students enjoy a field trip to experience French culture: usually, this involves a day trip to Pittsburgh. Students must be willing to fund-raise for this activity.

French I – 1 Credit
Course Code: 061
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

French I is an introductory course that concentrates on listening and speaking skills, with reading and writing appropriate for beginners. All students start at the Novice Low level. Simple grammar structures and phrases are learned; French culture throughout the world and American culture are compared; participation is a must. Families, traditions, education, pastimes, cuisine, holidays, music, art and cinema are explored throughout the year.

French II – 1 Credit
Course Code: 062
GRADE OFFERING   ☐9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: French I

French II builds upon the skills students mastered at French I. Emphasis is still centered around listening and speaking, but reading and writing are a bit more complex. Intermediate grammar concepts are taught at appropriate times. Cultural activities still emphasize family life, cuisine, cinema, holidays and values with a particular emphasis on the French speaking world outside of France.

French III – 1 Credit
Course Code: 063
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: French II

French III builds upon the skills students mastered at French II. Student work becomes more independent in nature; reading, writing, listening and speaking continue to be integral parts of their course work. Cultural activities become narrower in focus (comparing regional cuisines in France, for example) and students work toward a project that involves the French speaking world (travel flyers, business cover letters, poetry or stories, work-study abroad posters or slide shows).

French IV – 1 Credit – Grade Level 12
Course Code: 064

GRADE OFFERING   ☐9   ☐10   ☐11   ☒12

BUILDING OFFERING   ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: French III

The last year of the French program focuses on preparing students for world language placement at the college level. Grammar, French civilization, the French speaking world, and literature form the backbone of this course since the placement test at the college of their choice will be comprehensive.

Worldwide French Culture and Influence – 0.5 Credit
Course Code: 0615

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: None

This course will focus on the cultures and traditions in the French-speaking world across the globe: in Africa, North America, Europe (excluding France), the Caribbean, the South Pacific, and in Asia. As such, the curriculum will include customs, food, geography, history, art, music, film, literature, and current events. While no prerequisites are necessary to take this course, students should expect to be exposed to the French language at times throughout the semester.

HEALTH SCIENCE CAREER FIELD AND PATHWAYS

The Health Science Career Field prepares students for careers in Allied Health and Nursing, Exercise Science and Sports Medicine, Health Information Management and Medical Bioscience.

Allied Health and Nursing Pathway

Allied Health and Nursing program areas will prepare students with the mathematics, science and technical skills to provide clinical assistance in patient care, emergency interventions (CPR, first-aid, AED), nutrition, dentistry and surgery.

Careers for which this pathway prepares students include:

Dental Assistant
Patient Care Assistant
Licensed Practical Nurse (LPN)
Pharmacy Aide/Technician
Medical Assistant

Surgical Technician
Nurse Aide (including STNA)
Respiratory Technician
Phlebotomist
 Optometry

Postsecondary majors for which this pathway prepares students include:

Clinical Nutrition
Community Health and Preventative
Medicine
Occupational Health and Industrial Hygiene
Dental Laboratory Technology
Optics/Optical Sciences

Health Care Administration
Gerontology
Licensed Practical Nurse Training
Register Nursing
Surgical Technology

Exercise Science and Sports Medicine Pathway

Exercise Science and Sports Medicine program areas will prepare students with the mathematics, science and technical skills to assist with exercise and rehabilitative procedures for the human body.

Careers for which this pathway prepares students include:

Athletic Trainer
Physical Therapist
Assistant Personal Trainer

Occupational Therapist Assistant
Kinesiology and Exercise Science
Medical Massage Therapist

Postsecondary majors for which this pathway prepares students include:
Athletic Training Kinesiology and Exercise Science Foods, Nutrition and Wellness Studies

Health Information Management Pathway

Health Information Management program areas will prepare students with the mathematics, science and technical skills to create, manage and maintain confidential electronic health data and records.

Careers for which this pathway prepares students include:
Medical Coder/Biller Medical Records Technician Health Information Medical Records Assistant Medical Insurance Coding Specialist

Postsecondary majors for which this pathway prepares students include:
Health Information/Medical Records Administration
Health Information/Medical Records Assistant
Technology Medical Transcription

Medical Bioscience Pathway

Medical Bioscience program areas will prepare students with the mathematics, science and technical skills to apply biotechnology research and development to human health.

Careers for which this pathway prepares students include:

Biomedical Lab Assistant

Medical Lab Technician

Phlebotomist

Microbiology Generalist

Lab Technician

Postsecondary majors for which this pathway prepares students include:

Biological and Biomedical Sciences

Biotechnology

Biomedical Technology

Microbiology

Courses in Exercise Science and Sports Medicine Pathway

Pathway Courses	Subject Code
Exercise and Athletic Training (CTAG/College Credit 3-semester hours available)	072000
Health Science and Technology	072001
Bio-Statistics in Exercise Science and Sports Medicine	072005
Exercise Physiology and Biochemistry	072010
Nutrition and Wellness	072015
Fitness Evaluation and Assessment (CTAG/College Credit 3-semester hours available)	072020
Athletic Injuries and Prevention	072025
Sports Exercise Psychology	072030
Human Anatomy and Physiology	072040
Health Science Capstone (Apprenticeship/Paid Work Placement Opportunities)	072105
Medical Terminology (CTAG/College Credit 3-semester hours available)	072150
Medical and Dental Office Technology	072155

Courses in Allied Health and Nursing Pathway

Pathway Courses	Subject Code
Health Science and Technology	072001
Nutrition and Wellness	072015
Principles of Allied Health	072035
Human Anatomy and Physiology	072040
Human Pathophysiology	072045
Patient Centered Care	072050

Patient Centered Care and Diagnostics	072055
Lifespan Development and Medical Intervention	072060
Mental Health	072065
Surgical Support	072070
Dental Technology	072075
Medical and Dental Office Technology	072155
Dental Radiography	072076
Oral Diagnosis and Treatment Planning	072080
Pharmacology	072085
Respiratory Technology	072090
Opticianry and Vision Care	072095
Clinical Laboratory Techniques (CTAG/College Credit 2-3 semester hours available)	072100
Health Science Capstone (Apprenticeship/Paid Work Placement Opportunities)	072105
Medical Terminology (CTAG/College Credit 3-semester hours available)	072150
Emergency Medical Technician	170345
Health Information Technology (CTAG/College Credit 3-semester hours available)	072135
Health Information Management (CTAG/College Credit 2-semester hours available)	072140
Billing and Coding	072145

Courses in Health Information Management Pathway

Pathway Courses	Subject Code
Health Science and Technology	072001
Human Anatomy and Physiology	072040
Health Science Capstone (Apprenticeship/Paid Work Placement Opportunities)	072105
Health Information Technology (CTAG/College Credit 3-semester hours available)	072135
Health Information Management (CTAG/College Credit 3-semester hours available)	072140
Billing and Coding	072145
Medical Terminology (CTAG/College Credit 3-semester hours available)	072150
Medical and Dental Office Technology	072155
Data and Use	072160
Transforming Data into Information	072165
Transforming Information into Knowledge	072170
Problems and Solutions	072175

Courses in Medical Bioscience Pathway

Pathway Courses	Subject Code
Health Science and Technology	072001
Human Anatomy and Physiology	072040
Human Pathophysiology	072045
Health Science Capstone (Apprenticeship/Paid Work Placement Opportunities)	072105
Principles and Practices of Biomedical Technologies	072110
Biomedical Engineering	072115
Biochemistry of Health	072120
Biotechnology for Health and Disease	072125
Genetics of Disease	072130
Medical Terminology (CTAG/College Credit -3 semester hours available)	072150

Data and Use
Subject Code: 072160

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This foundational course focuses on the use of data and databases within the health field. Students learn what are data, how it is used and sources of data in the medical and health informatics field. They learn how to make sense of data and how data can be applied to our lives. Students will have the opportunity to interact with professionals in the health informatics field.

Transforming Data into Information
Subject Code: 072165

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students learn how to use data to address both patient and industry needs in the health-care field. Students use software to collect and analyze data, develop a health-care registry, create a mobile app mockup and develop forms and systems to solve health-care problems. They will learn how technology can be used to create better information to inform decision making, create information from data, improve public and individual health and to protect patient privacy.

Transforming Information into Knowledge
Subject Code: 072170

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This advanced course allows students to make improvements in the health-care field by designing solutions using the information, knowledge and technology tools available to health

informatics professionals. Students are engaged in the following activities: building a system of sharing information among health-care facilities; using social media tools to reduce diseases in foreign countries; exploring voice recognition software; using a motion-based video gaming console for rehabilitation; and exploring clinical decision rules for improving patient care.

Problems and Solutions
Subject Code # 072175

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this advanced course, students study and design solutions to problems facing health-care systems. Students learn how can the health-care system work more efficiently and economically, how health-care issues in rural locations can be addressed and how various community organizations work together to improve the health of the community? Students will have the opportunity to interact with professionals in the health informatics fields.

Patient Centered Care
Subject Code: 072050

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Principles of Allied Health
Subject Code: 072035

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this, first course 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.

Patient Centered Care and Diagnostics
Subject Code: 072055

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students establish and implement treatment plans while providing primary nursing care. Topics include pharmacology, phlebotomy, mental health nursing and acute care nursing. Students use diagnostic techniques to develop patient health assessments. Emphasis

is placed on the synthesis of information gathered through health history, observation, and the detection of deviations and variations from normal physical characteristics. In addition, students learn the legal and ethical principles needed to function within the scope of practice.

Lifespan Development and Medical Intervention
Subject Code: 072060

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students gain necessary skills and knowledge to meet the needs of individuals from infancy through the human life cycle in a safe, legal, and ethical manner using the nursing process. Topics include physical, psychological, and cultural variations associated with maturing and aging. Emphasis will be placed on regulatory compliance, patient assessment, patient safety, and medical interventions. Additionally, students use psychomotor nursing skills to assist in day-to-day patient care activities.

Mental Health
Subject Code: 072065

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students learn contemporary mental health theories related to psychiatric disorders and mental diseases. Students will differentiate between stress, anxiety, and crisis, and identify methods to maintain mental health, including problem-solving techniques, treatment and intervention strategies. Students will assess, plan, implement and evaluate the mental health needs of the client. Additionally, students will use therapeutic communication techniques and be able to discuss documentation guidelines and the plan of care with the patient.

Surgical Support
Subject Code: 072070

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student demonstrates knowledge and skill necessary to carry out delegated tasks associated with the safe and efficient operating room support functions and related procedures. Topics include surgical technology theory, patient care concepts, and sterilization techniques. Student will assist with the passing of instruments and the positioning of patients. Additionally, students will prepare patients for transport to and from surgery, maintain equipment and supplies, and prepare the operating room for surgery.

Emergency Medical Technician
Subject Code: 170345

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

 Emergency Medical Technicians are first responders who provide basic medical care to sick and injured people. In this course, students will learn the knowledge and skills necessary to provide lifesaving first aid. Students will assess, diagnose, and treat a variety of illnesses and injuries in the process of providing pre-hospital care. Students who successfully complete this

course at chartered institution will be eligible to take the National Registry Exam for Ohio EMT certification.

Dental Technology
Subject Code: 072075

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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 physician. Emphasis is given to terminology, instruments and equipment, and patient communication. Additionally, students maintain accounts and inventory, records and appointments.

Dental Radiography
Subject Code: 072076

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Oral Diagnosis and Treatment Planning
Subject Code: 072080

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students gain knowledge of 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. Students perform radiographs, impressions, pouring, trimming, and wax bites methods and techniques. Additionally, students educate the patient on dental procedures and comprehensive dental care.

Pharmacology
Subject Code: 072085

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

 Students will apply the principles of pharmacology in order to read, interpret and dispense prescriptions. They will learn how medications are classified and administered. Students will study the impact of drugs on different systems of the body, interaction of drugs, side effects and effectiveness in relation to dosages.

Respiratory Technology

Subject Code: 072090
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will be able to collaborate with the respiratory therapist to administer care to patients with heart and lung disorders requiring humidity, medial gas and aerosol therapies. Students will perform diagnostic tests, clean and maintain equipment. Students observe patient responses and progress. Students apply concepts of infection control, basic therapeutic and diagnostic modalities.

Opticianry and Vision Care
Subject Code: 072095
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

 In this course, students apply optometric examination techniques and applications. Topics include visual acuity, stereopsis, color vision, and Amlser grid. Additionally, students perform patient assessments; demonstrate medical interviewing techniques, collect health history content and prepare medical record documentations. Students will assist patients in frame selection and fittings and educate patient in comprehensive vision care.

Clinical Laboratory Techniques
Subject Code: 072100
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete secondary course and earn a qualifying score of 65 or higher on the End of Course examination

 Students will apply practical application of a wide range of clinical duties. Topics covered will include hematology, urinalysis, hematopoiesis processes, body chemistry, microbiology, and blood typing. Students will perform laboratory exercises illustrating principles of the cell and human physiology. Emphasis is given to safe handling, collection procedures, and preparation of specimens. Additionally, students will correlate and document clinical findings and maintain quality management in a clinical laboratory.

Health Information Technology
Subject Code: 072135
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2. Successfully complete secondary course and earn a qualifying score of 62 or higher on the end-of-course examination.

This course introduces electronic health information systems, designs, implementation, and application. Students gain knowledge and skills in techniques for managing and maintaining electronic health data and compilation, analysis, of healthcare statistics, research protocols and techniques. Topics include imaging technology, information security and integrity, data dictionaries, basic statistical principles, databases, registries, descriptive statistics, research protocol monitoring, including data collection and analysis, data sources/sets, archival systems, and quality and integrity of healthcare data
.

Health Information Management
Subject Code: 072140
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2. Successfully complete secondary course and earn a qualifying score of 57 or higher on the end-of-course examination

Students will collect and analyze health care data to prepare medical records. Topics include managing patient health information, administering computer systems for records management, and coding diagnosis and procedures for healthcare services. Students will analyze legal and ethical issues and the role of health records management in the industry.

Billing and Coding
Subject Code: 072145
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students develop, evaluate, and implement billing and record systems for health information data using various classification systems to code and categorize patient information. Topics include health record content and structure, diagnostic coding, legal and compliance requirements. Students will record transactions, process payments, and manage patient accounts. Further, students gain knowledge using coded data to produce and submit claims to insurance companies; reviewing and appealing unpaid and denied claims; and for handling collections on unpaid accounts.

Health Science Capstone
Subject Code: 072105
GRADE OFFERING   ☐9   ☐10   ☐11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS   ☐SHCC

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.

Exercise and Athletic Training
Subject Code: 072000
GRADE OFFERING   ⊠9   ⊠10   ⊠11   ⊠12
BUILDING OFFERING   ☐BHS ☐MCHS ⊠RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 56 or higher on the End of Course examination.

In this, first course students will apply procedures and techniques used in athletic training and in the care and rehabilitation of athletic injuries and therapeutic exercise. Topics include injury prevention, conditioning, and wound care techniques of the musculoskeletal system. Students will learn techniques in the analysis of mechanical factors related to human movement. In addition, current trends, technology, legal considerations, and the role of exercise science in relationship to other health fields will be emphasized.

Bio-Statistics in Exercise Science and Sports Medicine
Subject Code: 072005
GRADE OFFERING   ⊠9   ⊠10   ⊠11   ⊠12
BUILDING OFFERING   ☐BHS ☐MCHS ⊠RHS   ☐SHCC

Students will use fundamental qualitative analysis to study the human body's responses to exercise. Topics include respiratory response to exercise, metabolism and energy production, body composition, healing rate of tissues, and cardiovascular conditioning. Students will use therapeutic exercise and the application of modalities to restore or facilitate normal function or development. Developing and implementing exercise test protocols, and emergency procedures will be emphasized.

Exercise Physiology and Biochemistry
Subject Code: 072010
GRADE OFFERING   ⊠9   ⊠10   ⊠11   ⊠12
BUILDING OFFERING   ☐BHS ☐MCHS ⊠RHS   ☐SHCC

Students will learn to critically evaluate acute and chronic conditions associated to the human body's responses to exercise. Students will pre-screen individuals to identify the benefits and risks associated with physical activity. Students will coordinate exercise tests in order to measure body compositions, cardiorespiratory fitness, muscular strength/endurance, and flexibility. Emphasis is placed on developing conditioning programs that address preassessment needs, enhance mobility and build muscle strength.

Nutrition and Wellness
Subject Code: 072015

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

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.

Fitness Evaluation and Assessment
Subject Code: 072020
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 61 or higher on the End of Course examination.

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.

Athletic Injuries and Prevention
Subject Code: 072025
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

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.

Sports Exercise Psychology
Subject Code: 072030
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

Students apply practical and theoretical information as it relates to psychology of sport. Students analyze the reciprocal relations among physical activity, exercise behavior, and

biochemical and physiological adaptation. Topics include theories of behavior change, exercise psychology interventions, and the relationship between exercise and mental health. Further, students will identify psychosocial determinants and effects associated with adopting and maintaining an exercise program and develop strategies for promoting optimal performance in athletes.

Medical Terminology
Subject Code: 072150
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☒RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
4. Successfully complete secondary course and earn a qualifying score of 61 or higher on the End of Course examination.

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. Further, students will interpret and translate medical records and documents.

Human Anatomy and Physiology
Subject Code: 072040
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☒RHS ☐SHCC

In this course, students will demonstrate knowledge of body systems with emphasis on the interrelationships between structure and physical function. Students will analyze and evaluate how the body systems respond to physical activity, disease, and aging. Students will use data acquisition software to monitor abnormal physiology and body functions (e.g., muscle movement, reflex, respiratory, and voluntary actions). Further, students will analyze descriptive results of abnormal physiology and evaluate clinical consequences.

Medical and Dental Office Technology
Subject Code: 072155
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☒RHS ☐SHCC

Students will apply fundamental principles of communication, leadership, technology and management as it applies to the medical office setting. Students will demonstrate documentation and record keeping procedures set forth by national accrediting organizations.

Health Science and Technology
Subject Code: 072001
GRADE OFFERING ☒9 ☒10 ☒11 ☒12

BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS ☐SHCC

This first course in the career field 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.

Biomedical Engineering
Subject Code: 072115
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students learn medical interventions that extend and improve quality of life including gene therapy, use and development of prosthetics, rehabilitation techniques, and supportive care. Students will use 3D imaging, data acquisition software, and current scientific research to design and develop medical intervention products. Students will demonstrate current and emerging strategies and technologies used for collecting, analyzing, recording and sharing information. In addition, students will develop leadership and team-building skills that promote collaboration.

Biochemistry of Health
Subject Code: 072120
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

This course introduces biochemical methods, analysis, and techniques used in the bioscience research and development industry. Students will learn the chemistry of organic macromolecules, intermediary metabolism and the relationships to the human body. Topics also include structures, properties, functions, reactivity, and synthesis of simple organic molecules. Students will monitor, record, and maintain integrity of equipment and instrumentations; environmental conditions of the facility; and inventory.

**Principles and Practices of Biomedical Technologies – 1.25 Credit - Grades 9-12 - MCHS
Subject Code: 072110**
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this first course, students will use concepts, procedures, and equipment common to a professional medical laboratory. Students conduct problem-based studies, apply scientific methodology and use descriptive statistics to communicate and support predictions and conclusions. Students will follow procedures and protocols for handling, transporting, storing, and preparing specimens. Further, students will sample, monitor, and record environmental conditions of the facilities. Emphasis is given to demonstrating professional and ethical behavior associated with the medical field.

NEW for 2021-22

Genetics of Disease – 1.25 Credit - Grades 9-12 - MCHS
Subject Code: 072130

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students gain knowledge and skill in genetic principles and molecular methods of analysis. Topics include enzymology, protein purification, and gene expression and organization. Students perform bio-molecular applications using knowledge of nucleic acid structure and function, DNA replication, transcription, translation, chromosome structure and remodeling and regulation of gene expression in prokaryotes and eukaryotes. Additionally, students will use electrophoresis to separate nucleic acids and proteins to determine molecular weight.

Biotechnology for Health and Disease – 1.25 Credit - Grades 9-12 - MCHS
Subject Code: 072125

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course explores techniques for extracting, separating, and assaying carbohydrates, lipids, and proteins from biological samples. Topics include mechanisms for regulating metabolism and gene expression. Students will describe the morphology and process of reproduction of microorganisms important in clinical disease and biotechnology applications. Students will perform assays as a diagnostic tool to detect the presence of a pathogen. Further, students will perform separation techniques including chemical separations, centrifugation, distillation, and filtration and interpret results.

Biochemistry of Health – 1.25 Credit - Grades 9-12

Subject Code: 072120

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course introduces biochemical methods, analysis, and techniques used in the bioscience research and development industry. Students will learn the chemistry of organic macromolecules, intermediary metabolism and the relationships to the human body. Topics also include structures, properties, functions, reactivity, and synthesis of simple organic molecules. Students will monitor, record, and maintain integrity of equipment and instrumentations; environmental conditions of the facility; and inventory.

Biotechnology for Health and Disease – 1.25 Credit - Grades 9-12

Subject Code: 072125

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course explores techniques for extracting, separating, and assaying carbohydrates, lipids, and proteins from biological samples. Topics include mechanisms for regulating metabolism and gene expression. Students will describe the morphology and process of reproduction of microorganisms important in clinical disease and biotechnology applications. Students will perform assays as a diagnostic tool to detect the presence of a pathogen. Further, students will perform separation techniques including chemical separations, centrifugation, distillation, and filtration and interpret results.

Health Science Capstone 1-3 credits
Subject Code: 072105
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Students enrolled in this class must also be enrolled in one of the other Heath Science Career Field courses.

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in the 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.

Human Anatomy and Physiology - 1.25 credits
Subject Code: 072040
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

In this course, students will demonstrate knowledge of body systems with emphasis on the interrelationships between structure and physical function. Students will analyze and evaluate how the body systems respond to physical activity, disease, and aging. Students will use data acquisition software to monitor abnormal physiology and body functions (e.g., muscle movement, reflex, respiratory, and voluntary actions). Further, students will analyze descriptive results of abnormal physiology and evaluate clinical consequences.

Human Pathophysiology – 1.25 credit - Grades   MCHS

Subject Code: 072045
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

In this course, students will identify the causes, processes, and changes in body organs and tissues that occur with human illness. Topics include identification of clinical characteristics and effects of diseases, mechanisms causing alterations in cellular activity, maintenance of cellular tissue oxygenation, fluid and electrolyte balance, neuroendocrine control of the body, and diagnostic methodology. Students will

interpret and use clinical data and patient health history to assemble a comprehensive health assessment.

HOSPITALITY AND TOURISM CAREER FIELD AND PATHWAY

The Hospitality and Tourism Career Field prepares students for careers in various hospitality and tourism disciplines across a variety of industries important to the economic vitality of the State of Ohio. Students may also pursue entrepreneurship within a specific discipline.

Culinary and Foodservice Operations Pathway

Educational programs in culinary and foodservice operations prepare learners for careers in the art and science of food preparation and presentation as well as the skills needed for restaurant management.

Careers for which this pathway prepares students include:

Banquet Setup Employee
Caterer
Catering and Banquet Manager
Executive Chef
Food and Beverage Manager

Line Cook Pastry and Specialty Chef
Personal Chef
Restaurant Manager
Restaurant Owner
Sous Chef

Postsecondary majors for which this pathway prepares students include:

Catering
Culinary Arts
Culinary Science Technology

Hospitality Management
Restaurant and Foodservice Management
Restaurant Owner

Lodging and Travel Services Pathway

Educational programs in lodging and travel service prepare learners for careers in management, marketing and operations of lodging facilities, meetings and events and travel-related services.

Careers for which this pathway prepares students include:

Convention Service Manager
Destination Marketer
Director of Hospitality Sales
Executive Housekeeper
Front Desk Supervisor
Front Office Manager
Gaming and Casino Supervisor

General Manager
Meeting Planner
Reservationist
Rooms Division Manager
Tourism Marketing Specialist
Small Business Owner
Welcome Center Supervisor

Postsecondary majors for which this pathway prepares students include:

Administrative Management Technology
Hotel, Tourism and Event Management
Meeting and Events Planning

Gaming Management
Hotel and Restaurant Management

Courses in Culinary Arts Pathway

Pathway Courses	Subject Code
Hospitality and Tourism Capstone	330130
Hospitality Fundamentals (CTAG/College Credit 2-semester hours available)	330000
Fundamentals of Food Production (CTAG/College Credit 2-6 semester hours available)	330100
Baking and Pastry Arts (CTAG/College Credit 2-semester hours available)	330125
Restaurant Management (CTAG/College Credit 2-semester hours available)	330120
Dining Room Service and Operations	330110
Catering and Banquet Service Operations	330025
Contemporary Cuisine (CTAG/College Credit 2-semester hours available)	330105

Courses in Hospitality Pathway

Pathway Courses	Subject Code
Hospitality and Tourism Capstone	330130
Hospitality Fundamentals (CTAG/College Credit 2-semester hours available)	330000
Dining Room Service and Operations	330110
Catering and Banquet Service Operations	330025
Event and Food Planning	330021
Travel and Adventure Planning	330040
Front Office Management and Operations (CTAG/College Credit 2-5 semester hours available)	330030
Hospitality Management (CTAG/College Credit 2-semester hours available)	330035

Hospitality Fundamentals
Subject Code: 330000
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
9. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
10. Successfully complete secondary course and earn a qualifying score of 68 or higher on the corresponding End of Course examination to earn 2 semesters of college credit.

This first course in the career field will introduce students to culinary arts, foodservice operations, lodging, travel and tourism. Students will obtain knowledge of customer service principles and examine the impact of cultural, historical, social and technological developments on key segments of the industry. They will also apply safety and sanitation techniques to prevent and control injuries, illnesses and diseases in the workplace. Business law, employability skills, leadership and communications will be addressed.

Catering and Banquet Service Operations
Subject Code: 330025
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will design and manage catering and banquet operations. They will recommend types of food functions and food-and-beverage services to clients, create menus for special occasions and events, and determine financial requirements. Students will hire, train, and supervise staff; manage event logistics, operations and service providers; and oversee dining room operations. Customer service; food, equipment and site safety; and high-volume food production will also be addressed.

Fundamentals of Food Production
Subject Code: 330100
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
11. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
12. Successfully complete secondary course and earn a qualifying score of 68 or higher on the corresponding End of Course examination to earn 4 semesters of college credit.
13. Student must hold a current ServSafe® Manager Certification offered through the National Restaurant Association (NRA) for an additional 2 semester hours of college credit.

Students will prepare food products and beverages according to standardized recipes. They will apply plating and presentation principles to deliver attractive menu items, establish food specifications and prep lists, and develop ingredient and portion control guides. Safety and sanitation, standard knife skills, and culinary math will be emphasized. Employability skills, leadership and communications will also be incorporated.

Contemporary Cuisine
Subject Code: 330105
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC
Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

2. Student must hold a current ServSafe® Manager Certification offered through the National Restaurant Association (NRA) for an additional 2 semester hours of college credit.

Students will prepare regional and international food products and beverages according to standardized recipes. They will research and develop marketable new recipes, plan and design menus, and calculate food requirements and costs. Selection, use, maintenance and storage of commercial equipment, machines, tools and tableware will be emphasized. Food science, inventory management, food presentation, and safety and sanitation will also be addressed.

Dining Room Service and Operations
Subject Code: 330110
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply strategies and techniques to identify and meet dining guest needs. They will provide table and beverage service; maintain eating areas, meeting spaces and serving stations; manage online reservations and orders; and monitor table turns, wait lines and table assignments. Nutritional analysis, types of table service, safety and sanitation, cultural intelligence, employability skills and communications will also be addressed.

Restaurant Management
Subject Code: 330120
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 66 or higher on the corresponding End of Course examination
3. Student must hold a current ServSafe® Manager Certification offered through the National Restaurant Association (NRA) for an additional 2 semester hours of college credit.

Students will apply management principles to plan, organize and direct restaurant staff toward goal achievement. They will hire, train, and supervise employees; establish processes to facilitate restaurant operations; and plan and design menus. Students will also forecast and schedule food production, establish food specifications, select vendors, calculate costs, and purchase food and nonfood products. Other topics include food science, nutritional analysis, business law and ethics, economics and marketing.

Baking and Pastry Arts
Subject Code: 330125
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Student must hold a current ServSafe® Manager Certification offered through the National Restaurant Association (NRA) for an additional 2 semester hours of college credit.

Students will apply food-science principles to prepare and bake breads, desserts and pastries. They will also use specialized decorating and presentation techniques to decorate cakes, cookies, pastries, and other baked goods. Students will select quality ingredients, determine food costs, and research and develop marketable new recipes and food concepts. Personal safety, food safety, and equipment safety will be emphasized.

Hospitality and Tourism Capstone
Subject Code: 330130
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in the 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.

Event and Food Planning
Subject Code: 330021
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will design and organize meetings and events. They will analyze risks, identify needs and develop strategies for achieving event goals. Students will also set up event facilities, manage event activities and evaluate event success. Other topics addressed in the course include menu development, customer service, people management, simple food production, sales and marketing.

Catering and Banquet Service Operations
Subject Code: 330025
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

 Students will design and manage catering and banquet operations. They will recommend types of food functions and food-and-beverage services to clients, create menus for special occasions and events, and determine financial requirements. Students will hire, train, and supervise staff; manage event logistics, operations and service providers; and oversee dining room operations. Customer service; food, equipment and site safety; and high-volume food production will also be addressed.

Front Office Management and Operations
Subject Code: 330030

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 64 or higher on the corresponding end-of-course examination to earn 2 semesters of college credit for CTCF006 and 3 semester hours of college credit for CTCF008..

Students will develop knowledge and skills needed in the lodging industry. Students will perform frontoffice procedures such as reserving rooms, checking guests in and out, and orienting guests to the lodging property. They will also maintain guest rooms and public areas, develop a housekeeping plan, and establish a schedule for facilities maintenance. In addition, site safety and sanitation, customer service, people management, employability skills, leadership and communications will be emphasized.

Hospitality Management
Subject Code: 330035

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program
2. Successfully complete secondary course and earn a qualifying score of 64 or higher on the corresponding End of Course examination for 2 semesters of college credit.

Students will plan, organize, and monitor day-to-day lodging operations. They will use technology to maintain guest room status and accounts, manage lodging property finances, conduct marketing research, and communicate with current and prospective guests. Property sales, property management, people management and strategic planning will also be addressed.

Travel and Adventure Planning
Subject Code: 330040

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply knowledge of travel destinations, tourist attractions and events of interest to plan and coordinate travel and tourism activities for customers. They will analyze cultural, historical and environmental factors impacting travel and tourism; examine challenges, opportunities and trends associated with the industry; and develop strategies for promoting travel and tourism. Social media marketing, brand positioning, marketing research and employability skills will also be addressed.

Dining Room Service and Operations
Subject Code: 330110
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will apply strategies and techniques to identify and meet dining guest needs. They will provide table and beverage service; maintain eating areas, meeting spaces and serving stations; manage online reservations and orders; and monitor table turns, wait lines and table assignments. Nutritional analysis, types of table service, safety and sanitation, cultural intelligence, employability skills and communications will also be addressed.

HUMAN SERVICES CAREER FIELD AND PATHWAY

Pathway Cosmetology and Barbering Pathway

Students interested in personal care services will apply the skills and knowledge they learn to enhance clients' personal and professional images through physical and personal appearance services. Services will include but are not limited to, hair design and styling, skin and nail care.

Courses in Cosmetology Pathway

Pathway Courses	Subject Code
Human Services	172600
Cosmetology	172602
Human Services Capstone	174010
Microbiology and Infection Control	174115
Trichology	174120
Fundamentals of Hair Cutting and Styling	174125
Advanced of Hair Cutting and Styling	174130
Fundamentals of Chemical Services	174135
Advanced Chemical Services	174140
Hand & Foot Treatment Fundamentals and Enhancements	174145
Skin Care Fundamentals and Enhancements	174150
Salon Operations and Communications	174155

Microbiology and Infection Control
Subject Code: 174115

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

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.

Trichology Subject
Code: 174120

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

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 treatment.

Fundamentals of Hair Cutting and Styling
Subject Code: 174125

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will learn basic shampooing, conditioning and haircutting including trimming, wet styling and thermal styling techniques when working with natural and synthetic hair. Students will also learn infection control and safety along with the science of ergonomics.

Advanced Hair Cutting and Styling
Subject Code: 174130

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

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

Fundamentals of Chemical Services
Subject Code: 174135

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will apply basic skills, knowledge, and safety practices when giving permanent/chemical waves, curl re-forming, chemical relaxers and hair color techniques to include tinting, highlighting, bleaching, and foiling.

Advanced Chemical Services
Subject Code: 174140
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

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.

Hand & Foot Treatment Fundamentals and Enhancements
Subject Code: 174145
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will learn the knowledge and skills to perform both manicures and pedicures. They will learn how to maintain personal hygiene and infection control. Students will give plain/oil manicures, pedicures, and hand/arm & foot/leg massages. Enhanced hand and foot treatments using specialized products and techniques will be performed.

Skin Care Fundamentals and Enhancements
Subject Code: 174150
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will apply the principles of anatomy, skin analysis, infection control and safety to safe hair removal, skincare treatments, and facial massage. Students will use electrical and manipulative facial treatments including masks, packs, make-up techniques. Students will also learn advanced skin care treatments, targeted massage, and enhancement applications using specialized products and techniques.

Salon Operations and Communications
Subject Code: 174155
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Students will learn the fundamentals of managing a cosmetology salon. Students will learn about employment and customer liability, insurance, leases, record keeping, communication, and sales.

Human Services Capstone
Subject Code: 174010
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Human Resources 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.

INFORMATION TECHNOLOGY CAREER FIELD AND PATHWAY

The Information Technology Career Field prepares students for careers in Information Support and Services (ISS), Interactive Media (IM), Network Systems (NS) and Programming and Software Development (PSD).

Information Support and Services Pathway

Information Support and Services program areas will prepare students for careers dealing with information technology (i.e., operations, support, deployment/integration). Students will gain the necessary technical and academic skills to implement computer systems and software, provide technical assistance and manage information systems.

Careers for which this pathway prepares students include:

Application Support Specialist
Computer Support Specialist

Help Desk Technician
Product Support Engineer

Postsecondary majors for which this pathway prepares students include:

Computer and Information Sciences and Support Services
Computer Science

Computer Software and Media Applications
Information Services

Interactive Media Interactive Pathway

Media program areas will prepare students for careers using multimedia technology to develop online products for business, training, entertainment, communications and marketing. Students will gain the necessary technical and academic skills to create, design and produce interactive media products and services.

Careers for which this pathway prepares students include:

Desktop Publisher
Multimedia Specialist

Webmaster
Website Developer

Postsecondary majors for which this pathway prepares students include:

Digital Communication and Media/Multimedia
Digital/Multimedia and Information
Resources Design

Prepress/Desktop Publishing and Digital Imaging
Design Web/Multimedia Management and Webmaster

Network Systems Pathway

Network Systems program areas will prepare students for careers dealing with network systems analysis, planning and implementation. Students will gain the necessary technical and academic skills to design, install, maintain and manage network systems.

Careers for which this pathway prepares students include:

Network Technician   Systems Integration Advisor
Operations Technician   Cybersecurity Specialist

Postsecondary majors for which this pathway prepares students include:

Computer Engineering   Project Management
Integrated Media and Technology   Telecommunications

Programming and Software Development Pathway

Programming and Software Development program areas will prepare students for careers using technical and academic skills to design, develop, test, document, implement and maintain computer software and database systems.

Careers for which this pathway prepares students include:

Application Developer   Database Administrator
Application Support Specialist   Database Designer

Postsecondary majors for which this pathway prepares students include:

Computer Science
Information Science/Studies
Software Engineering
Video Game Development

Cybersecurity Pathway

The Cybersecurity program area will prepare students for careers using technical and academic skills to design, develop, implement, and test secure information technology systems.

Careers for which this pathway prepares students include:

Cybersecurity Specialist   Network Administrator
Security Administrator   Security Consultant/Specialist Computer
Network Technician   Technician

Postsecondary majors for which this pathway prepares students include:

Cybersecurity   Software Engineering
Computer Science   Digital/Computer Forensics
Information Systems

Courses in Information Support and Services Pathway

Pathway Courses	Subject Code
Information Technology	145005
Web Design (CTAG/College Credit 3-semester hours available)	145010
Information Technology Capstone (Apprenticeship/Paid Work Placement Opportunities)	145015

Computer and Mobile Applications	145020
Computer Hardware (CTAG/College Credit 3-semester hours available)	145025
Computer Software (CTAG/College Credit 3-semester hours available)	145030
Networking (CTAG/College Credit 3-semester hours available)	145035
Network Operating Systems (CTAG/College Credit 3-semester hours available)	145040
Network Security (CTAG/College Credit 3-semester hours available)	145050
Programming (CTAG/College Credit 3-semester hours available)	145060
Object Oriented Programming (CTAG/College Credit 3-semester hours available)	145065
Visual Programming (CTAG/College Credit 3-semester hours available)	145070
Systems Analysis and Design	145075
Database Administration	145080
Database Applications Development	145085
Video and Sound (CTAG/College Credit 3-semester hours available)	145110

Courses in Interactive Media Pathway

Pathway Courses	Subject Code
Information Technology	145005
Web Design (CTAG/College Credit 3-semester hours available)	145010
Information Technology Capstone (Apprenticeship/Paid Work Placement Opportunities)	145015
Computer and Mobile Applications	145020
Programming (CTAG/College Credit 3-semester hours available)	145060
Object Oriented Programming (CTAG/College Credit 3-semester hours available)	145065
Visual Programming (CTAG/College Credit 3-semester hours available)	145070
Systems Analysis and Design	145075
Game Design	145090
Design Techniques (CTAG/College Credit 3-semester hours available)	145095
Creating and Editing Digital Graphics (CTAG/College Credit 3-semester hours available)	145100
Multimedia and Image Management Techniques (CTAG/College Credit 3-semester hours available)	145105
Video and Sound (CTAG/College Credit 3-semester hours available)	145110
Animation (CTAG/College Credit 3-semester hours available)	145115
3-D Techniques (CTAG/College Credit 3-semester hours available)	145120
Interactive Application Development (CTAG/College Credit 3-semester hours available)	145125

Courses in Network Systems Pathway

Pathway Courses	Subject Code
Information Technology	145005
Web Design (CTAG/College Credit 3-semester hours available)	145010
Information Technology Capstone (Apprenticeship/Paid Work Placement Opportunities)	145015
Computer Hardware (CTAG/College Credit 3-semester hours available)	145025
Computer Software (CTAG/College Credit 3-semester hours available)	145030
Networking (CTAG/College Credit 3-semester hours available)	145035
Network Operating Systems (CTAG/College Credit 3-semester hours available)	145040
Network Management (CTAG/College Credit 3-semester hours available)	145045
Network Security (CTAG/College Credit 3-semester hours available)	145050
Computer and Mobile Applications	145020
Routing and Switching	145055
Programming (CTAG/College Credit 3-semester hours available)	145060
Object Oriented Programming (CTAG/College Credit 3-semester hours available)	145065
Visual Programming (CTAG/College Credit 3-semester hours available)	145070
Database Administration	145080
Video and Sound (CTAG/College Credit 3-semester hours available)	145110

Courses in Programming & Software Development Pathway

Pathway Courses	Subject Code
Information Technology	145005
Web Design (CTAG/College Credit 3-semester hours available)	145010
Information Technology Capstone (Apprenticeship/Paid Work Placement Opportunities)	145015
Computer and Mobile Applications	145020
Programming (CTAG/College Credit 3-semester hours available)	145060
Object Oriented Programming (CTAG/College Credit 3-semester hours available)	145065
Visual Programming (CTAG/College Credit 3-semester hours available)	145070
Systems Analysis and Design	145075
Game Design	145090
Design Techniques	145095

Pathway Courses	Subject Code
Creating and Editing Digital Graphics	145100
Multimedia and Image Management Techniques	145105
Video and Sound (CTAG/College Credit 3-semester hours available)	145110
Animation (CTAG/College Credit 3-semester hours available)	145115
3-D Techniques (CTAG/College Credit 3-semester hours available)	145120
Interactive Application Development (CTAG/College Credit 3-semester hours available)	145125

Courses in Cybersecurity Pathway

Pathway Courses	Subject Code
Information Technology	145005
Cybersecurity	146005
Computer Hardware (CTAG/College Credit 3-semester hours available)	145025
Computer Software (CTAG/College Credit 3-semester hours available)	145030
Networking (CTAG/College Credit 3-semester hours available)	145035
Network Operating Systems (CTAG/College Credit 3-semester hours available)	145040
Network Management (CTAG/College Credit 3-semester hours available)	145045
Network Security (CTAG/College Credit 3-semester hours available)	145050
Routing and Switching	145055
Programming (CTAG/College Credit 3-semester hours available)	145060
Cybersecurity Defense and Reinforcement	146010
Cybersecurity Testing and Response	146015
Information Technology Capstone (Apprenticeship/Paid Work Placement Opportunities)	145015

Computer Skills and Applications – 1 Credit
Course Code: 04011
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: All freshmen are required to take this course.

Keyboarding, in addition to being the primary means of communication in the business world, is fast becoming the most popular method of corresponding in an individual's personal and professional life. A student will learn the skills necessary for operating a PC for personal and professional use. These skills include learning the keyboard, developing speed with an emphasis on accuracy, becoming familiar with format procedures, and techniques used in formatting documents and design such as centering, simple tabulations, personal notes/letters, business letters, reports, and outlines all using correct grammar,

capitalization, punctuation and proofreading skills. Other skills can include those needed to type manuscripts and resumes by utilizing Microsoft Office 2016 Software for word processing and information processing and for creating Powerpoint presentations.

Introduction to Computer Technology - 1 Credits
Course Code: 1170

GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS   ☒MCHS   ☒RHS   ☐SHCC

Prerequisite: 04011, All sophomores are required to take this course.
Introduction to Computer Technology is designed to prepare students for high school as well as college courses. The Microsoft Office 2016 suite will be utilized, as well as various internet resources. This course will contain more complete training in Office 2016, G Suite and Apps as well as the internet resources available. **This course is a good foundation for the SHCC BAM program or Interactive Media courses.** Students enrolled in this course may participate in Business Professionals of America (BPA).

Computer Science Discoveries – 0.5 credits
Course Code: 11651

GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☐BHS   ☒MCHS   ☐RHS   ☐SHCC

Prerequisite: **04011 and 1170**

Computer Science Discoveries (CS Discoveries) is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun.

Computer Science Principles– 0.5 credits
Course Code: 11652

GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☐BHS   ☒MCHS   ☐RHS   ☐SHCC

Prerequisite: **1165 Computer Science Discoveries**

Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. More than a traditional introduction to programming, it is a rigorous, engaging, and approachable course that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in.

Computer Apps 12 – .5 credits
Course Code: 1172

GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: **04011 and 1170**

The course objective is to prepare students' computer skills for college through the use of free software. During the course, the students will learn the following: Chrome Browser with Apps and Extensions, Power Searching with Google including Google Books and Google Scholar, Google Apps for Education Suite including Docs, Slides, Sheets, Lucid Charts, Drawing, Calendar, GMail, Images, Sites, collaborating and sharing information. The students will also learn about free Web 2.0 Sites for presentations, animations and videos. Also during the semester, the students will create an online e-portfolio in which they will write their biography, upload samples of their work, certificates earned and teacher references. The e-portfolios can be used for college admission and also scholarships.

Design Techniques – 1.25 Credit

Course Code: **was ~~1182~~** 145095
GRADE OFFERING ☒9 ☒10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
2. Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

Students will learn techniques for transforming photographic images through the use of digital cameras, computers and mobile devices. To accomplish this, they will learn software photo editing techniques including layering, color correction, masking, and special effects using current commercial and open source programs and applications.

Creating and Editing Digital Graphics – 1.25 Credit – Grade 7-12 ~~11~~ –MCHS, RHS

Course Code: was~~1185~~ 145100

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn to design, develop, and produce interactive media projects, web sites, and social media contexts. Students will demonstrate methods of creating professional quality media using commercial and open source software.

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

2. Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
3. Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
4. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

This class will commonly be taught using Adobe Photoshop.

Web Design – 1.25 Credit – Grade 7-12 ~~11~~ –MCHS, RHS

Course Code: 145010

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
2. Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

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.

Multimedia and Image Management Techniques – 1.25 Credit

Course Code: 145105

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Students will apply principles of image creation, management procedures, and multimedia techniques as they create, revise, optimize, and export graphics for video, print, and web publishing. The course will address issues related to web-based publishing, social media, and security. Students will utilize current commercial and open source languages, programs, and applications.

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 60 or higher.
2. Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

Programming
Course Code: 145060
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2) Successfully complete secondary course and receive a qualifying score of 55 or higher on the end-of-course examination.

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.

Routing and Switching
Course Code: 145055
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student will learn the functions, characteristics, and operations of routers and switches. Students will learn about wireless network standards, components, and the role that routers play in enabling communications across multiple networks. Students will troubleshoot the routing process. Students will examine the use of Virtual Local Area Networks (VLANs) to create logically separate networks.

Systems Analysis and Design
Course Code: 145075

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn the theory and practice of software testing and develop an understanding of the analysis and design phases of software development. Students will effectively use appropriate programming languages and software patterns to improve software development. A variety of commercial and open source programs, applications, and tools will be used.

Visual Programming
Course Code: 145070

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2) Successfully complete secondary course and earn a qualifying score of 50 or higher on the end-of-course examination
3) OR provide proof of successful completion of the MTA Exam 98-372 (Microsoft .NET Fundamentals) or current equivalent.

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.

Video and Sound
Course Code: 145110

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 60 or higher.
2. Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
3. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

Students will create professional video and audio productions for distribution in traditional and new media channels. Students will plan, produce, edit, and launch media products. Students will develop scripts and storyboards, compose shots and operate cameras, capture sounds using microphone hardware, apply special effect techniques, and edit to achieve the final product. Students will be able to use animation and graphic design for video.

Networking
Course Code: 145035
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete the ODE secondary courses below and earn a qualifying score on the corresponding End of Course examination(s).
    a. Course 1: Networking (145035), qualifying score of 60 or higher, and
    b. Course 2: Network Management (145045) qualifying score of 50 or higher.
3. Or, the student must hold the current CompTIA Network+ certification, Cisco Certified Network Associate (CCNA) certification, Cisco Certified Entry Networking Technician (CCENT) certification, or passed Cisco I and II semester tests (proctored and closed book test environment).

Students will install, configure, and troubleshoot network hardware and peripherals. Students will learn networking by exploring the OSI model, network topologies, and cabling. Students will design simple networks, know how to select physical devices, and be able to configure the equipment. Knowledge and skills relating to the operation and usage of network protocols will be developed.

Network Operating Systems
Course Code: 145040
GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete the ODE secondary courses and receive a qualifying/passing score on the corresponding ODE "End of Course" examination(s).
    a. Course 1: Computer Software (145030), qualifying score of 60 or higher and
    b. Course 2: Network Operating Systems (145040) qualifying score of 55 or higher on the "End of Course" examination.
3. Or, the student must hold the current Microsoft Client Operating System certification (exam #70-620 or 70-680 or current equivalent exam)

4. Or, the student must hold one of the following current certifications: CompTIA Linux +, Linux Professional Institute Junior Exam, Red Hat Certified System Administrator, or Novell Certified Linux Administration.

Students will perform desktop client administrator duties by providing support for users in various work environments including professional offices, small businesses, work groups, departments, and/or corporate information services (IS). Students will learn to install, configure, and update commercial and open source network operating systems.

Network Management
Course Code: 145045
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will perform network administrator duties by installing and configuring network hardware, software, and peripherals. Abiding by IEEE standards and the Open Source Interconnection (OSI) model, students will create advanced networks, assign user rights, and develop knowledge and skills of network hierarchy. Students will demonstrate mastery of topologies, remote connectivity, wireless networking, TCP/IP, network security, and network troubleshooting.

Network Security
Course Code: 145050
GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course (must choose to submit for credit either CTITOO6 or CTIT015 but not both):

CTIT006 Introduction to User Support Credits: 3 Semester Hours
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete the secondary course with a "C" or better, and receive a qualifying/passing score of 63 or higher.
3. Or, the student must hold the current Microsoft Enterprise Desktop Support Technician credential (exam #70-685 or current equivalent exam).

CTIT015 CompTIA Security + Credits: 3 Semester Hours
4. Successfully complete the secondary courses and receive a qualifying/passing score of 55 or higher.
5. Or, the student must hold the current CompTIA Security + certification (exam # SY0-301 or current equivalent exam).

This course will address securing networks and operating systems. Students will learn to secure network communications, computer hardware, and network software. Topics included are network security theory, cryptography, security architecture, firewalls, VPNs, IP Security, and methods of protection.

Object Oriented Programming
Course Code: 145065

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1) Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
2) Successfully complete secondary and earn a qualifying score of 55 or higher on the end-of-course examination.

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.

Database Applications Development
Course Code: 145085

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will use developer strategies to manipulate data, present database systems theory, and develop database applications. Students will learn to import and export data, manipulate table properties, make advanced queries, and run basic SQL forms and reports. Students will develop macros for automating database tasks and building menu-driven applications. Knowledge and skills of data modeling, diagraming, query writing, and design theory will be developed.

Design Techniques
Course Code: 145095

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn techniques for transforming photographic images, through use of digital cameras, computers, and mobile devices. To accomplish this, they will learn software photo editing techniques including layering, color correction, masking, and special effects using current commercial and open source programs and applications.

Game Design
Course Code: 145090

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

This course will prepare students to design and program games using commercial and open source programs and applications. Students will learn industry standard programming language constructs to write programs that integrate classes, class methods, and class instances. Students

will learn input method handling, animation, collision detection, game physics, and basic artificial intelligence.

Information Technology
Course Code: 145005

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

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.

Information Technology Capstone
Course Code: 145015

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in their information technology 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.

Computer Software
Course Code: 145030

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:
1. Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.
2. Successfully complete the secondary course and receive a qualifying/passing score on the "End of Course" examination of 60 or higher.

Students will apply knowledge and skills of commercial and open source operating systems in portable, stand alone, and networked devices. Students will install a variety of operating systems manually and using remote assistance. They will learn to configure, modify, and troubleshoot operating systems. Desktop virtualization, system security, and operating system history will be addressed.

Creating and Editing Digital Graphics
Course Code: 145100

GRADE OFFERING ☐9 ☐10 ☐11 ☐12

BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

h)   Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
i)   Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
j)   Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

This class will utilize Adobe Photoshop (most current version available).

Students will learn to design, develop, and produce interactive media projects, web sites, and social media contexts. Students will demonstrate methods of creating professional quality media using commercial and open source software.

Cybersecurity
Course Code: 146005

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will learn the components of cybersecurity and the role each plays in preventing, detecting and mitigating vulnerabilities and attacks. Components include the security of the network infrastructure, security of the systems, and the prevention, detection, and mitigation of common vulnerabilities and attacks. Throughout this course, students will examine and implement security safeguards for desktop, network, and application security.

Cybersecurity Defense and Reinforcement
Course Code: 146010

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will learn the process of systematic defense for information technology systems. They will apply knowledge and skills required to secure network resources including infrastructure, operating systems, data, and applications. Students will apply the knowledge of disaster recovery and business continuity.

Cybersecurity Testing and Response
Course Code: 146015

GRADE OFFERING   ☐9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS   ☐SHCC

Students will apply the skills of systematic testing and planned response to mitigate security concerns in information technology systems. They will describe the need for security, identify and explain security risks, and implement security safeguards. Students will manage threats, deploy countermeasures, and establish strategies to protect business information using risk and incident management.

Database Administration
Course Code: 145080

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn about user rights and responsibilities, concurrency security, reliability, backup and recovery to perform tasks involved in the administration and management of a database system. Students will design, extract and transform data ensuring data quality. Knowledge and skills relating to reporting systems, data warehouses, and data mining will be developed.

3-D Techniques
Course Code: 145120

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

i) Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.
ii) Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
iii) Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

Students will use current industry standard commercial and open source programming software to create 3-D visual elements in a web or standalone environment. Students will learn aspects of computer visual production, thought, and application; to map out, design, and test three-dimensional elements.

Animation
Course Code: 145115

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

4) Students must pass the corresponding End-of-Course (WebXam™) examination with a qualifying score of 55 or higher.

5) Students must work with their secondary institution to ensure that their official high school transcript, official WebXam™ score, and the (CT)² Verification Form are submitted to the post-secondary institution where the student chooses to enroll. The post-secondary institution must also be a part of the statewide agreement or offer the career-technical discipline in which to facilitate credit transfer.
6) Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program

Students should be able to create animations using software such as Adobe Flash™ and have some basic knowledge of scripting. This class will commonly be taught using Adobe Flash™.

Students will use animation and storyboarding techniques to plan the production of an animation project. Students will design from script and storyboard actions in the pre-production planning process. Students will use commercial and open source digital animation software to create finished animations, cartoons, and other short movies. They will accomplish this using animated text, character movements, voice, background sound, sound effects, camera movements, and multiple scenes.

Business Informatics
Course Code: 142040

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will capture and use organizational knowledge and data to solve business problems and meet specific business needs. Students will select tools and techniques to facilitate knowledge sharing. They will also maintain and update knowledge management systems. They will examine business issues using business process analysis and complete data research and analysis using structured approaches and tools. Relationship management and project management skills will also be emphasized.

Computer and Mobile Applications
Course Code: 145020

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Students will learn to create applications for mobile devices using a variety of commercial and open source software. They will install these applications, modify them, and develop customer service skills to handle user issues. Knowledge and skills related to customer service in professional offices, small businesses, departments, work groups, and corporate information services will be addressed.

Computer Hardware
Course Code: 145025

GRADE OFFERING ☐9 ☐10 ☐11 ☐12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☐SHCC

Student Requirements for CTAG Credit: The following steps must occur for secondary students to access college credit for this course:

4) Matriculate to an institution of higher education with an approved or comparable program within 3 years after completing the approved secondary program.

5) Successfully complete the ODE secondary courses and receive a qualifying/passing score on the corresponding ODE "End of Course" examination(s).
   a) Course 1: Computer Software (145030), qualifying score of 60 or higher and
   b) Course 2: Computer Hardware (145025)] qualifying score of 55 or higher.
6) Or, the student must hold the current CompTIA A+ certificate (current exams #220-801 and 220-802 or current equivalent exam).

Students will learn to install, repair, and troubleshoot computer hardware systems. They will perform preventative maintenance practices and learn techniques for maintaining computer hardware security. Communication skills and professionalism in troubleshooting situations will be emphasized.

MATHEMATICS

Suggested Math Pathways

➢ **8th Grade Math ⇨ Algebra I ⇨ Geometry ⇨ Algebra II or Applied Algebra II A ⇨ Pre-Calc or Applied Algebra II B**

➢ **8th Grade Algebra I or Honors Algebra I ⇨ Geometry (or Honors Geometry) ⇨ Algebra II (or Honors Algebra II) ⇨ Pre-Calculus ⇨ Calculus**

● **All students who participate in the honors mathematics courses will be assessed to determine eligibility each year based on multiple standardized assessments.**

Algebra I – 1 credit
Course Code: 113
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Any freshmen, who did not take 8th grade Algebra the previous year, must take Algebra.

Algebra I introduces the students to problem solving using unknowns and the real number system. Topics will include solving linear equations with applications to various problems, absolute values, inequalities, polynomials, polynomial factorizations and algebraic fractions. The student will determine solutions to first and second-degree equations through factoring and the quadratic formula and apply these methods to written problems. Two variable equations will be introduced and solved by graphing on the x/y

coordinate plane and through systems of equations. Also included are numerous definitions, postulates, theorems and properties, as well as their applications to writing formal and informal proofs.

Honors Algebra I – 1 credit
Course Code: 113H
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisite: see Honors Course Policy

Honors Algebra I introduces the student to problem solving using unknowns and the real number system. Topics will include solving linear equations with applications, absolute values including equations and graphs, inequalities, polynomials and polynomial factorization, algebraic fractions, linear and quadratic functions and their graphs. Honors Algebra I will have a greater emphasis on exponents and include radicals, radical equations, and the Pythagorean theorem. The student will solve first and second-degree equations and functions using factoring methods, graphing techniques with calculators, and the quadratic formula. Two variable equations and inequalities are solved using graphing techniques, and systems.

Algebra I with Application – 1 credit
Course Code: 1132
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisite: being enrolled in Algebra I course

This course is designed to provide support and to coincide with an Algebra I course. This class is not remedial but will provide immediate support and interventions for students. Students will receive an elective credit for this course.

Geometry – 1 credit
Course Code: 115
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☒SHCC

Prerequisite: Algebra I

Geometry begins with the study of points, lines and planes. It extends into conditional and biconditional statements, formulas, segments, graphing, equations of lines, angles, perpendiculars, parallels, triangles, polygons, similarity, radicals, basic trigonometry and circles. Also included are numerous definitions, postulates, theorems and properties, as well as their applications to writing formal and informal proofs.

Students who need additional support may enroll in the Geometry extension class which will allow students a double period to complete the Geometry credit. Enrollment in this extension course must be approved by the school.

Geometry with Application – 1 credit
Course Code: 1152

GRADE OFFERING ☒9 ☒10 ☐11 ☐12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: being enrolled in Geometry course

This course is designed to provide support and to coincide with a Geometry course. This class is not remedial but will provide immediate support and interventions for students. Students will receive an elective credit for this course.

Honors Geometry – 1 credit
Course Code: 115H

GRADE OFFERING ☒9 ☒10 ☐11 ☐12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: see Honors Course Policy

Honors Geometry further develops students' understanding of Geometry concepts using a more rigorous approach than the regular Geometry course. Honors Geometry begins with the study of points, lines and planes. It extends into conditional and biconditional statements, formulas, segments, graphing, equations of lines, angles, perpendiculars, parallels, triangles, polygons, similarity, congruence, radicals, trigonometry and circles. Also included are numerous definitions, postulates, theorems and properties, as well as their applications to writing formal and informal proofs.

Algebra II – 1 credit
Course Code: 114

GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Successful completion of Geometry or Honors Geometry with a B or better

The course will emphasize the development and solving of linear and quadratic equations and inequalities over both the real and complex number systems. Graphical representation and analysis of these functions will be performed using pencil & paper, graphing calculators, or computer apps. Students will learn about and problem solve with systems of equations, radical equations, rational expressions and equations. Additional topics will include methods for solving higher order equations, exponential, logarithmic, and trigonometric functions and applications. A focus on application and word problems will be used throughout the course.

Honors Algebra II – 1 credit
Course Code: 114H

GRADE OFFERING ☐9 ☒10 ☒11 ☐12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: see Honors Course Policy

Honors Algebra II further develops students' understanding of Algebraic concepts using a more rigorous approach than regular Algebra II course. The course will emphasize the development and solving of linear and quadratic equations and inequalities over both the real and complex number systems. Graphical representation and analysis of these functions will be performed using pencil & paper, graphing calculators, or computer apps. Students will learn about and problem solve with systems of equations, radical equations, rational expressions and equations. Additional topics will include methods for solving higher order equations, exponential, logarithmic, and trigonometric functions and applications. A focus on application and word problems will be used throughout the course. The course content and pacing is intended to prepare students for success in Precalculus, Calculus, college entrance exams and those interested in pursuing a field of study requiring a deeper understanding of mathematics at the college level.

Mathematical Modeling and Reasoning – 1 credit
Course Code: 1143
GRADE OFFERING ☐9 ☒10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☐RHS ☒SHCC

Prerequisite: Successful completion of Algebra 2 or the equivalent

This course is designed to promote reasoning, problem-solving, and modeling through thematic units focused on the mathematical practices while reinforcing and extending content in Number and Quantity, Algebra, Functions, Statistics and Probability, and Geometry. Quantitative reasoning and modeling involve the application of mathematics to real-world situations, with careful attention to the choice of units and contextual challenges. Problem-solving requires analyzing an unfamiliar situation and devising a solution strategy. Problem-solving and modeling mathematics together provide opportunities for students to experience success with mathematics not merely improve their self-perception. These habits and skills promote perseverance and cut across disciplines, thus providing a gateway into successful postsecondary education and a variety of careers.

Career Based Math I – 1 credit
Course Code: 110035
GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☐MCHS ☐RHS ☒SHCC

Prerequisites: two years of high school math

This mathematics course will focus on a small number of topics taught in depth, with a balance among skills, understanding, reasoning and problem solving. The purpose of this course is to develop the ability to tie together the Standards for Mathematical Practice around a common theme, career or reasoning.

This course will engage students in using mathematical models to solve real-world problems through effective and accurate use of mathematical notion, vocabulary and reasoning.

Applied Algebra IIA– 1 credit
Course Code: 1141
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisite: Successful completion of Geometry or Honors Geometry

The course will emphasize the development and solving of linear and quadratic equations and inequalities over both the real and complex number systems. Graphical representation and analysis of these functions will be performed using pencil & paper, graphing calculators, or computer apps. Additional topics may include methods for solving higher order equations, and applications. A focus on application and word problems will be used throughout the course. This Applied Algebra II class is intended to be the first class of a two-year Algebra II course. Successful completion of this course is needed to proceed to the second part of this two-year course. The course content and pacing is intended to spread Algebra II out over two school years. This provides a more concrete approach to Algebra II for those students who do not intend to pursue Precalculus and Calculus courses.

Applied Algebra II B– 1 credit
Course Code: 1142
GRADE OFFERING   ☐9   ☐10   ☐11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisite: Successful completion of Applied Algebra 2

This Algebra II class is intended to be the second class of a two year Algebra II course. To be able to take this course, a student must first successfully complete the Applied Algebra II course. Graphical representation and analysis of these functions will be performed using pencil & paper, graphing calculators, or computer apps. Students will learn about and problem solve with radical equations, rational expressions, and equations. Additional topics will include methods for solving higher order equations, exponential, logarithmic, and trigonometric functions and applications. A focus on application and word problems will be used throughout the course. The course content and pacing is intended to spread Algebra II out over two school years. This provides a more concrete approach to Algebra II for those students who do not intend to pursue Precalculus and Calculus courses.

Probability and Statistics – 1 credit
Course Code: 1162
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisites: Algebra II

This course is designed to develop a greater understanding and appreciation for and skill in applying statistical techniques in the decision-making process. Topics include: descriptive statistics, probability, and statistical inference. Practical examples based on real data are used throughout the course. Students will plan and conduct experiments or surveys and analyze the resulting data.

AP Statistics - 1 credit
Course Code: 1162P
GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: See AP District Policy requirements and successful completion of Algebra II

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

Pre-Calculus – 1 credit
Course Code: 116
GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisites: Algebra II

This subject matter of Pre-Calculus draws together topics covered in both Algebra II and Geometry. Algebraic function, inequalities, and conic sections are all discussed using the methods of Analytic Geometry. The study of Trigonometry is continued with special emphasis on the abstract rather than the concrete applications. Other topics covered are logarithms.

Calculus – 1 credit
Course Code: 118
GRADE OFFERING ☐9 ☐10 ☐11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Pre-Calculus

Calculus is equivalent to a freshman level college mathematics course. Calculus is a unique mathematics topic that focuses on three main concepts: limits, areas under a curve, and the study of tangent line application. It prepares students for advanced study in any of the Science or Engineering fields. Pre-Calculus topics such as functions, including trigonometric functions and limits. The course introduces derivatives of functions, the application of the Chain Rule, and implicit differentiation. Other topics will include basic differential equations and integration techniques such as anti-derivatives, integration by

substitution, and integration by parts. The course will focus on problem solving applications of derivatives, integrals and differential equations in Science, Engineering and other fields.

MUSIC

All music courses fulfill the high school fine-arts graduation requirement

Vocal Music – 1 credit
Course Code: 122
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Students must be interested in singing.

Students should be able to sing on pitch. Reading will be taught in class. Vocal consists of mixed chorus, girls chorus, buys chorus, ensemble, works and solos. Outside of classroom participation such as assemblies and concerts is expected.

Instrumental Music – 1 credit
Course Code: 121
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Student must possess the ability to play an instrument.

This class will meet five times a week and will schedule practices outside of normal school hours. This class includes several outside participation activities, including, but not limited to:

- Parades and rehearsals throughout the summer
- Parades during the school year
- Football games (half-time)
- Participation at county fair in the summer
- Marching Band Contests
- District and State music contests
- Concerts
- Participation in assemblies
- Jazz band
- Private lesson recital

▪ Ensemble rehearsal

Piano Keyboarding I – 1 credit
Course Code: 123K
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: None

The purpose of this course is to give students the opportunity to learn piano keyboarding. The class instruction is designed so that students are enabled to: (1) Perform simple accompaniments and songs, (2) Perform with proper posture, hand position, fingering, rhythm and articulation, (3) Listen to, analyze, sight read and study piano literature, (4) Make interpretive decisions.

Piano Keyboarding II – 1 credit
Course Code: 123K2
GRADE OFFERING   ☐9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: Piano Keyboarding I

This performing arts class will focus on developing techniques of sight-reading, transposition, accompanying, technique, and repertoire. Music theory concepts will be reinforced through keyboard application. Students are expected to perform and demonstrate mastery of the piano keyboarding techniques learned in this class.

Music Exploration – 1 credit
Course Code: 125
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☐MCHS ☒RHS ☐SHCC

Prerequisite: None

This course is designed to provide students an opportunity to explore, create and perform music. Students will learn proper singing techniques, and play instruments. They will also learn how to compose and record their own music using computer-based music software and will improve their music-reading skills and develop a better understanding of music.

History of Pop and Rock Music – 1 credit
Course Code: 124
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite: None

This course will cover the basics of pop and rock music history, and it will help students to gain a better understanding and appreciation of pop and rock music genres. Students will discuss the various times and eras of pop music genres, the musical and cultural trends of those eras, and staple performers and songs from those eras. Students will also listen to staple music from these various genres and eras. Pop music genres covered will include; but not be limited to: rock, pop, country, and hip hop/rap.

Beginning Guitar Class – 1 credit
Course Code: 123G

GRADE OFFERING	☒9	☒10	☒11	☒12
BUILDING OFFERING	☐BHS	☒MCHS	☐RHS	☐SHCC

Prerequisite: None

Beginning Guitar Class - Prerequisite: Students must possess either the ability to play the guitar or the desire to learn to play the guitar. Grades: 9-12, Description: This course will cover the basics of playing guitar at a beginning level. Students will focus on developing individual and group performance skills. These skills include guitar playing technique, group performance skills, the rehearsal and performance of guitar music, music reading, and music fundamentals. Fundamentals include various style techniques, reading music notation, reading chord symbols and tablature, and learning from peers. In addition, students will gain a better understanding of various musical genres that use the guitar. Classroom music will include pop, rock, folk, classical, blues, and jazz music. This course meets five times a week. Outside of classroom participation such as recitals or concerts is expected.

Health & PHYSICAL EDUCATION

Physical Education – 0.25 Credit
Course Code:
    Grade 9: 082
    Grade 10: 084

GRADE OFFERING	☒9	☒10	☐11	☐12
BUILDING OFFERING	☒BHS	☒MCHS	☒RHS	☐SHCC

Prerequisite: All freshmen and sophomores need to take this course.

O, S, U grade

Both units are required courses by the State of Ohio for graduation. The course consists of (2) one-semester courses with one the freshman year and one the sophomore year. PE 9 & 10 do not count into the student cumulative GPA. Improvement in the principles of physical fitness and skills are sought. Cardiovascular and respiratory fitness through aerobic style activities are taught. From the basics of walking through running and rope jumping to circuit training are covered. Calisthenics, weights and other power and flexibility measures are also used. The student will be required to change into proper attire and participate in each activity.

The 9th grade year consists of more team-oriented games: flag football, volleyball, soccer, etc.

The 10th grade year includes some of the 9th grade activities but with more emphasis put on the individual and carry-over activities important for later life.

*** *Students involved in athletics may be able to receive P.E. credit without taking the course. Please see your guidance counselor or athletic director for more information****

Course Code 082w – PE Waiver 9 will receive a grade of S that is not counted into the student's GPA

Course Code 084w – PE Waiver 10 will receive a grade of S that is not counted into the student's GPA

Health – 0.5 Credits
Course Code: 081
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: All freshmen need to take this course.

This is a required course by the State of Ohio for graduation. This course consists of one semester dealing with the most basic of health related issues that will be important for physical, mental, social, emotional and spiritual wellness. Some important course related topics deal with: making healthy choices, problem solving, hygiene, personality development, handling emotions, stress and defense mechanisms, nutrition, diet and exercise, substance abuse, human development and some infectious diseases including AIDS and other communicable diseases.

Advanced PE – 0.5 Credit (full year course)
Course Code: 0820
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Teacher approval and PE 9 and PE 10

O, S, U grade

Advanced PE is a class intended for student athletes to supplement their overall conditioning process for their individual health and who have already met PE 9 & 10 requirements. The program will include total body conditioning with emphasis placed on aerobic, anaerobic, strength, power, speed and flexibility

accompanied with injury prevention, injury care, diet, rest and mental preparation. Classroom work will include students gaining knowledge of the physiology of exercise along with training methodology. Students who participate in three sports will have preference because of their lack of training time in a school year.

<u>Exercise Physiology</u> – .5 credit
Course Code: 088
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☐MCHS ☒RHS ☐SHCC

This course addresses the principles of the physiology of the human body during exercise with emphasis on cardiopulmonary and neuromuscular systems.

<u>Nutrition and Wellness</u> - .5 credit
Course Code: 088
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☐MCHS ☐RHS ☐SHCC

This course provides students with an overview of good nutrition principles that are necessary for physical and mental wellness and a long, healthy life.

<u>Leadership in Sports</u> – .5 Credit – Grades 9-12 – BHS
Course Code: 26999
GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☐MCHS ☐RHS ☐SHCC
Prerequisite: None (does not replace required health or PE credit)

This course offers an opportunity for students to study leadership and what makes a person an effective leader.

SCIENCE

Suggested Science Pathway:
➤ **Physical Science ⇨ Biology ⇨ Chemistry &/or Anatomy ⇨ Chemistry II & Physics &/or CCP Anatomy**
➤ **Physical Science ⇨ Biology ⇨ 1 credit of higher level science ⇨ Science elective at home high schools**

<u>Physical Science</u> – 1 credit

Course Code: 131

GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: All freshmen need to take this course.

The student will study energy, motion, matter and their interactions. The emphasis will be placed upon the laboratory skills necessary for the above studies. Topics will include the classification of matter, atoms, the periodic table, chemical bonds, chemical reactions, motion, the effects of forces, energy transformation, the effects of waves, and the universe.

Agriculture, Food and Natural Resources/Agricultural Science - Physical Science – 1.25 Credits
Course Code: 010105

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☐RHS ☐SHCC

This first course in the career field is an introduction to Agricultural and Environmental Systems. Students will be introduced to the scope of the Agricultural and Environmental Systems career field. They will examine principles of food science, natural resource management, animal science & management, plant & horticultural science, power technology and bioscience. Students will examine the FFA organization and Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agriculture industry.

This course is offered during the Freshmen year and can be taken in place of the Physical Science course. (Ohio Standards covered in the AFNR /Agri. Science course are the same as those in Physical Science.) Upper class students may take this course as an elective. A Web Exam is required upon completion of this course.

<u>Biology</u> – 1 credit
Course Code: 132

GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: Physical Science

The student will study the structure and function of organelles and effects of solutions. The course will include the major cellular processes such as: photosynthesis, respiration, nucleic acids, protein synthesis and cell division. The student will study genetics and evolution and how it relates to modern time. The student will study the characteristics of living things and their processes along with ecology.

<u>Honors Biology</u> – 1 credit
Course Code: 1321

GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Prerequisite: see Honors Course Policy

This course will focus on the interaction of organisms with their environment. The course focuses on cellular structure and function, genetics and DNA replication, evolution, biodiversity and ecosystems. Chemical processes that living things perform, such as cellular respiration, photosynthesis and protein synthesis will be discussed. Discussions on current events, such as habitat loss, adaptations, climate change and its effect on life on the planet will occur.

Animal and Plant Science/ Agricultural Biology – 1.5 Credits
Course Code: 010910
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Students will apply knowledge of animal and plant science to the agriculture industry. They will be introduced to the value of production animals relative to the agricultural marketplace. Students will engage in animal classification and selection, body systems, along with animal welfare and behavior in relation to the production of animals. Students will learn principles of plant anatomy and physiology, and the role of nutrition, deficiencies and growing environment on plant production. Throughout the course, business principles and professional skills will be examined.

AP Biology - 1 credit
Course Code: 132P
GRADE OFFERING   ☐9   ☒10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS ☐SHCC

Prerequisite- meeting AP District Policy requirements

The AP Biology course is designed to enable you to develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The result will be readiness for the study of advanced topics in subsequent college courses — a goal of every AP course. This AP Biology course is equivalent to a two-semester college introductory biology course and has been endorsed enthusiastically by higher education officials.

Chemistry – 1 credit
Course Code: 133
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Physical Science and Algebra I

Chemistry is the science that deals with the structure and composition of matter and the changes it undergoes. The principles discussed in class are illustrated and utilized in laboratory work. The major principles studied include the phases of matter and chemical reactions at microscopic and macroscopic levels.

Integrated Technical Science – 1 credit
Course Code: 133
GRADE OFFERING   ☐9   ☐10   ☐11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☐RHS ☒SHCC

Prerequisite: Two years of high school Science

Integrated Technical Science will introduce students to the study of the physical world by examining matter and energy, atoms and moles, the Periodic Table, ionic compounds, covalent compounds, chemical equations and reactions, stoichiometry, and the causes of change. Students will then build on these basics to further explore states of matter and intermolecular forces, gases, solutions, chemical equilibrium, acids and bases, reaction rates, oxidation, reduction, nuclear chemistry, electrochemistry, carbon and organic compounds, and biological chemistry. Exploration of these concepts will be through textbook readings, visual presentations, computer applications, and hands-on laboratory activities. Students will be able to utilize learning within the chosen career field and in real life applications.

Chemistry II – 1 credit
Course Code: 1361
GRADE OFFERING   ☐9   ☐10   ☐11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Chemistry I

Chemistry II topics include chemical reactions, mass and moles, energy in reactions, properties of solids, liquids and gases and chemical bonding in materials. This course will place a strong emphasis on laboratory work and analysis of data.

Anatomy & Physiology – 1 credit
Course Code: 1341
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Biology

The study of anatomy and physiology is where the form and function of the body is studied. A dissection specimen is used for the gross and micro study of anatomy and the physiological activities of the body from cells to organ systems are studied.

Physics – 1 credit

Course Code: 135

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Chemistry and Algebra II

Physics investigates the relationship between matter and energy. Basic physics covers mechanics and when time permits wave motion. Students will examine the causes of motion and the mathematical description of motion in both one dimension and two-dimensional forms. Basic trigonometry and vector notation will be introduced as supporting mathematical concepts to these studies. Wave motion may include mechanical, sound and light waves. Energy, energy transformations, energy transport and energy transfers are explored in both mechanical and wave systems. Laboratory work will provide opportunities to examine both physical and mathematical concepts applied to real problems and to critically analyze acquired data.

Earth & Space – 1 credit

Course Code: 143

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☐BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Physical Science

The course begins by looking at soil, the top layer of the solid Earth and interface between rock, water and atmosphere. Students will then explore the nature of the dynamic Earth and the internal and external processes that are continually at work shaping the planet. The course continues with an investigation into Earth's neighborhood in space and what effects space can have on planet earth.

Ecology - .5 credits

Course Code: 141

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Biology

Ecology will be a course in which the fundamentals of the relationships among living things and the environment are studied.

Forensics I - .5 credits

Course Code: 137

GRADE OFFERING ☐9 ☐10 ☒11 ☒12

BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: Biology and enrolled in Chemistry

This course is designed around authentic performance assessments with students working in teams to solve crimes using scientific knowledge and reasoning. It involves all areas of science including biology, anatomy, chemistry, physics and earth science with an emphasis in complex reasoning and critical thinking. In addition, students must incorporate the use of technology, communication skills, language arts, art, family and consumer science, mathematics and social studies.

Forensics II - .5 credits
Course Code: 1372
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS   ☐SHCC

Prerequisite: Successful Completion of Forensics I

This class is designed for students who wish to continue working in a hands-on science course. Students will use problem-solving skills, laboratory science, and content knowledge of all fields of science to solve hypothetical crimes at an advanced level. The main focus of this course will be to emphasize the evidential value of crime scene and related evidence and the services of what has become known as the crime laboratory.

Botany/Horticulture - .5 credits
Course Code: 148
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☐MCHS ☒RHS   ☐SHCC

Prerequisite: None

This course will explore plant anatomy and physiology, as well as factors that influence growth, and the diversity of plant life. Labs will include using microscopes of cellular structure and growing plants.

Zoology - .5 Credits
Course Code: 551
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☐BHS ☒MCHS ☐RHS   ☐SHCC

Prerequisite: None

This semester course provides a survey of invertebrates and vertebrates, as well as animal taxonomy. The focus of this course will include classification as well as the anatomy and physiology of worms, echinoderms, mollusks, arthropods, fish, amphibians, reptiles, birds, and mammals. The course includes dissections of some of the organisms studied.

SOCIAL STUDIES

Suggested SS Pathway:

➤ **World History ⇨ American History ⇨ American Government ⇨ SS Electives**

World History – 1 credit
Course Code: 151
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: All freshmen need to take this course

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.

Honors World History – 1 credit
Course Code: 151H
GRADE OFFERING   ☒9   ☐10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite – meeting Honor District Policy requirements

Student will need to complete in-depth research on various topics throughout the course in class and independently. This will include analyzing of primary sources, independent reading, critical thinking skills, and create written assignments. Student will synthesis and analyze different perspectives throughout World History to apply what they have learned to societal issues in real world settings, and to prepare to participate in civil life.

American History – 1 credit
Course Code: 153
GRADE OFFERING   ☐9   ☒10   ☐11   ☐12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: All sophomores need to take this course

This course examines the history of the United States of America. The federal republic has withstood challenges to its national security and expanded the rights and roles of its citizens. The episodes of its past have shaped the nature of the country today and prepared it to attend to the challenges of tomorrow. Understanding how these events came to pass and their meaning for today's citizens is the purpose of this course. Topics include, but are not limited to, immigration, labor movements, imperialism, economic theories, World War I and World War II. Several out-of-class written assignments and projects will be completed by the end of the year. Related films and documentaries are viewed and discussed. Tests and quizzes may consist of multiple choice, matching, true/false, fill-in the blank, short answer and essay questions.

Honors American History – 1 credit
Course Code: 153H

GRADE OFFERING ☐9 ☒10 ☐11 ☐12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: see Honors Course Policy

This course examines the history of the United States of America Understanding how these events came to pass and their meaning for today's citizens is the purpose of this course. Some topics include: immigration, labor movements, imperialism, economic theories, World War I and World War II. Several out-of-class written assignments and projects will be completed by the end of the year.

History through Film A – .5 credit
Course Code: 159A

GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: successful completion **of World History and American History**

This course will analyze significant themes, events and individuals in history as interpreted through the use of film. Topics include: warfare, important individual figures, the economy and sports. Students will learn to view films critically while also exploring the use of film to teach and learn history. This course is designed to be primarily student-centered instruction. Most class time will be spent interactively, for example, expressing opinions, listening to fellow students, watching film and participating in class discussion.

History through Film B– .5 credit
Course Code: 159B

GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: successful completion of World History and American History (students do not need to have taken History through Film A before taking this course.)

This course will analyze significant themes, events and individuals in history as interpreted through the use of film. Topics include: warfare, important individual figures, the economy and sports. Students will learn to view films critically while also exploring the use of film to teach and learn history. This course is designed to be primarily student-centered instruction. Most class time will be spent interactively, for example, expressing opinions, listening to fellow students, watching film and participating in class discussion.

American Government – 1 credit
Course Code: 154
GRADE OFFERING ☐9 ☐10 ☒11 ☒12
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: All students need to take this course their junior or senior year.

National, state, and local government levels are studied with an emphasis on the current government and the people involved. Specific topics of study include the basic principles of the U.S. Constitution, the amending process, individual rights and government protection of minority groups, the structure and function of the three branches, the Ohio Constitution, political parties and interest groups, and U.S. fiscal and monetary policy. Current events, projects, films, and documentaries are all used to enhance learning. Tests and quizzes may consist of multiple choice, matching, true/false, fill-in the blank, short answer, short answer and extended response questions.

AP U.S. Government and Politics- 1 Credit
Course Code: 154P
GRADE OFFERING ☐9 ☐10 ☒11 ☒12 based on availability of AP instructor
BUILDING OFFERING ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite- meeting AP District Policy requirements

The AP U.S. Government and Politics course provides a college level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

The primary focus of this course is to prepare students for success in college, as well as, completion of the Advanced Placement U.S. Government and Politics Exam

Current Events – .5 credits
Course Code: 158 -Elective credit in Social Studies

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

The dynamics of global interactions among nations and regions present issues that affect all humanity. These dynamics include: competing beliefs and goals; methods of engagement; and conflict and cooperation. Contemporary issues have political, economic, social, historic and geographic components. Approaches to addressing global and regional issues reflect historical influences and multiple perspectives. The student will, along with the teacher, provide worthwhile topics for class discussion. Daily news sources, such as newspapers, television news shows, radio, magazines and the Internet will be used.

World Geography - .5 credits
Course Code: 160 - Elective credit in Social Studies

GRADE OFFERING   ☒9   ☒10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

This course includes the study of the world's people, places and environments, with a focus on world regions. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives.

The Civil War - .5 credits
Course Code: 161- Elective credit in Social Studies

GRADE OFFERING   ☐9   ☐10   ☒11   ☒12

BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: World History, American History (this course does not replace credit for American History)

This course is a study of the American Civil War. Topics will range from the causes of the war itself to the era of Reconstruction. Emphasis will be placed on the contributions of both Union and Confederate military leadership. Students will explore Civil War battles on two different levels: the strategy of major commanders and developments within specific battles that affected the decisions of officers on the field. Students will also examine how the nation coped with the war and its aftermath.

Sociology - .5 credits
Course Code: 157- Elective credit in Social Studies

GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☐SHCC

Prerequisite: None

This is an introductory course on the study of society and group relationships. Students examine a variety of topics including culture (language, customs, norms, and values), socialization, group dynamics, deviance and collective criminal behavior, family structure, poverty, religion, and social change. Students can expect to complete and participate in projects, class discussions, and research.

Psychology - .5 credits
Course Code: 156   - Elective credit in Social Studies
GRADE OFFERING   ☐9   ☐10   ☒11   ☒12
BUILDING OFFERING   ☒BHS ☒MCHS ☒RHS ☒SHCC

Prerequisite: None

Students will learn a range of topics traditionally covered in an introductory course in psychology. The course begins by exploring the science of psychology, methods of research, and data collection. Students then delve into the structure and function of the brain, sensation, perception, theories of learning, memory, personality theory, and abnormal psychology including mental illness and treatment. Students can expect to complete and participate in projects, experiments, class discussions, and research.