# A Student Guide to Secondary Education 

## 2013-2014

For students entering 9th grade in 2013-2014 www.scsk12.org

# A <br> STUDENT GUIDE to SECONDARY EDUCATION 

For students entering 9th grade in 2013-2014
SECTION I-GENERAL INFORMATION ..... 1
Graduation Requirements ..... 3
Description of Ready Core Curriculum Requirements ..... 3
Course Substitutions ..... 4
Graduation with Honors or Distinction ..... 4
Special Education Diploma ..... 5
Participation in Commencement Exercises ..... 5
Equivalency High School Diploma ..... 5
Early Graduation Requirements ..... 5
Assessment of Learning ..... 6
Testing Requirements for Students with Disabilities (APBA) ..... 6
Writing Assessment ..... 7
English Language Learner Students and Tennessee Mandated Assessments ..... 7
Armed Services Vocational Aptitude Battery (ASVAB) ..... 7
Attendance and Excuses ..... 7
Grading System - Grades 6-12 ..... 8
Advanced Courses ..... 9
Grade Classification ..... 10
Course Load ..... 10
Guidance on Class Rank ..... 10
Individualized Education Programs (IEP) ..... 11
Optional Schools ..... 12
Interscholastic Athletics ..... 12
Collegiate Academic Requirements for Student Athletes ..... 13
SECTION II - COURSE DESCRIPTIONS. ..... 15
English Language Arts ..... 17
English as a Second Language (ESL) ..... 19
Mathematics ..... 21
Science ..... 26
Social Studies ..... 30
Computer Technology ..... 33
World Languages ..... 35
Fine Arts (Visual and Performing Arts) ..... 37
Music. ..... 37
Dance ..... 41
Theatre Arts ..... 41
Visual Arts ..... 42
Physical Education and Lifetime Wellness ..... 44
Army Junior ROTC ..... 46
Air Force Junior ROTC ..... 47
Navy Junior ROTC ..... 48
Driver Education ..... 49
Out-Of-School Experiences ..... 49
Intervention Courses ..... 50
SECTION III - EXCEPTIONAL CHILDREN COURSE DESCRIPTIONS ..... 51
Courses for Students with Disabilities ..... 53
Comprehensive Courses ..... 55
Work-Based Learning Programs ..... 55
SECTION IV - ONLINE COURSE DESCRIPTIONS ..... 57
English Language Arts ..... 59
Mathematics ..... 60
Science ..... 60
Social Studies ..... 62
World Language ..... 63
Fine Arts ..... 65
Computer Technology ..... 65
SECTION V - CAREERS AND TECHNOLOGY EDUCATION COURSE DESCRIPTIONS ..... 67
Careers and Technology Education ..... 69
Agricultural Education ..... 69
Business Technology Education ..... 71
Contextual Academics ..... 75
Family and Consumer Sciences Education ..... 76
Occupational Family and Consumer Sciences Education ..... 78
Health Science Education ..... 79
Marketing Education ..... 80
Exploration Courses ..... 81
Foundation Courses ..... 81
Advanced Courses ..... 81
Project Lead the Way ..... 82
Technology Engineering Education ..... 83
Trade \& Industrial Education ..... 86
CLUSTERS ..... 86
Arts and Communication ..... 86
Construction ..... 89
Hospitality and Tourism. ..... 91
Human Services ..... 92
Information Technology ..... 93
Manufacturing ..... 95
Transportation ..... 97
Student Four Year Plan Form ..... 103

## SECTION I <br> GENERAL INFORMATION

## GRADUATION REQUIREMENTS Policy 5004

To earn a regular high school diploma, students must meet minimum standards established by the State Board of Education and earn the following 22 units of credit:

## Ready Core Curriculum Requirements

| Course | Units Required |
| :--- | :---: |
| English | 4 |
| Mathematics | 4 |
| Science | 3 |
| Social Studies | 3 |
| Wellness | 1 |
| Physical Education | 0.5 |
| Personal Finance | 0.5 |
| Electives Focus | 3 |
| Foreign Language | 2 |
| Fine Arts | 1 |
| TOTAL | 22 |

## Additional Requirements

- Computer Education - One Full Year, Documented experience placed in cum folder


## DESCRIPTION OF READY CORE CURRICULUM REQUIREMENTS

## English - Four (4) Units

For grades 9 through 12, four units of credit in English Language Arts are required for graduation: English I, English II, English III, and English VI. These four English courses must be completed sequentially. English Language Learners (ELL) may use up to two (2) ESL English credits to satisfy English language credits for graduation. Courses in speech, journalism, competency English, and creative writing may be taken for elective credit, but they will not satisfy the four units of English Language Arts required for graduation. English I, English II, and English III students take statelevel EOC exams. Literature for all four courses requires cultural diversity.

English I + and English II + are available for all students performing 'Below Basic." Students with disabilities are encouraged to enroll in these courses as increased time, appropriate learning strategies, appropriate methodologies, and accommodations as determined by the IEP team are provided.

## Mathematics - Four (4) Units

Students are required to complete four units of mathematics including Algebra I and II, Geometry or the equivalent, and another mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year. The Bridge Math course is designed for students who have not scored 19 or higher on the ACT by the beginning of the senior year.

Students with qualifying disabilities in math, as documented in the individualized education program, shall be required to achieve at least Algebra I and Geometry (or the equivalent). The required number of credits in math will be achieved through strategies such as, but not limited to, increased time, appropriate methodologies, and accommodations as determined by the IEP team. Students with qualifying disabilities in math may complete the four units of math required for high school graduation by completing these math courses: Algebra IA, Algebra IB, Geometry IA and Geometry IB. Although completion of these alternative courses will enable the student with a disability to earn a high school diploma they may not enable the student to gain admission to a post-secondary college or university program. Additional coursework may be needed to meet admission requirements if the student is college bound.

## Science - Three (3) Units

Students must complete Biology I, Chemistry or Physics, and a third lab science. Students with qualifying disabilities in reading and/or math, as documented in the individualized education program, shall be required to achieve at least Biology $A+B$ and one other lab science credit. The required number of credits in science will be achieved through strategies such as, but not limited to, increased time, appropriate methodologies, and accommodations as determined by the IEP team.

## Social Studies - Three (3) Units

The social studies curriculum shall include United States History, World History/World Geography, Economics and Government.

## Wellness - One (1) Unit

Participation in marching band and interscholastic athletics may not be substituted for this aspect of the core curriculum. Credit earned in two years of Army JROTC may be substituted for the Wellness requirement.

## Physical Education - One Half (.5) Unit

This requirement may be met by substituting a documented and equivalent time of physical activity in marching band, cheerleading, interscholastic athletics, and school sponsored intramural athletics, JROTC, and other areas identified by the Superintendent in accordance with policy 5004 Graduation Requirements. (Two years of JROTC may substitute for the Physical Education requirement.)

## Electives - Three (3) Units

Students shall complete an elective focus of no less than three credits. The elective focus may be Career and Technical Education (CTE), science and math, humanities, fine arts, Advanced Placement (AP)/International Baccalaureate (IB), or other areas identified by the Superintendent in accordance with policy 5004 Graduation Requirements. Students completing a CTE elective focus must complete three units in the same CTE program area or state approved program of study.

Foreign Language - Two (2) Units and Fine Arts - One (1) Unit Students shall complete two units of the same foreign language and one unit of fine arts except in limited circumstances (students not planning to attend the university). Schools may waive the two units of foreign language and one unit of fine arts to expand and enhance their elective focus. Student's parents will submit in writing a request
to waive the fine arts and or the foreign language to enhance the CTE Elective Focus.

## Computer Education - One (1) Full Year

Every candidate for graduation is required to have received a full year of computer education at some time during the candidate' s educational career K-12 experience. (TCA 49-6-1010)

## Capstone Experience

The completion of a capstone experience is encouraged, but not required for graduation. A capstone experience may be completed during the junior or senior year. Options for the capstone experience may include, but are not limited to the following: junior/senior project, virtual enterprise, internship, externship, work-based learning, service learning (minimum of 40 hrs .), or community service (minimum of 40 hrs .).

## COURSE SUBSTITUTIONS

## The following course substitutions for core requirements are

 permitted:- Applied Communications/English IV (Grade 12) satisfies the English IV (Grade 12) credit required for graduation. The teacher shall hold an endorsement in English 7-12. Advanced
Placement English programs of the College Board may substitute for English III or English IV.
- Algebra I, taken at the eighth grade level, satisfies the Algebra I requirement for graduation provided the student meets the criteria for such credit.
- Industrial Chemistry I satisfies one of the mathematics credits required for graduation.
- Industrial Chemistry II or III, Anatomy \& Physiology, or Biomedical Technology, satisfies one of the science credits required for graduation.
- Advanced Placement United States History satisfies the one unit in United States History required for graduation.
- Advanced Placement Human Geography satisfies the one unit of World Geography.
- Successful completion of International Baccalaureate (IB) High Level History will substitute for Economics, U.S. Government and U.S. History.
- Dual Enrollment United States History Before 1877 and United States History Since 1877 satisfy the United States History required for graduation. Completion of both college courses is required for US History substitution.
- Advanced Placement United States Government and Politics satisfies the unit of Government.
- Dual Enrollment college-level course National Government may satisfy the United States Government unit required for graduation.
- Advanced Placement Macroeconomics or Microeconomics satisfies the unit of Economics.
- Dual Enrollment (EC) Macroeconomics or (EC) Microeconomics satisfies the required unit of Economics for graduation.
- Army JROTC Level III or American Business/Legal Systems satisfies the one-half credit in United States Government and Personal Finance required for graduation.
- The Social Studies requirement of unit of Economics may be satisfied by Business Economics, International Business/Marketing (INFORMATION TECHNOLOGY), Consumer Economics, one credit in a selected core MARKETING EDUCATION course, or out-of-school experiences through Junior Achievement Economics.
- Army JROTC I and Army JROTC II satisfy the one-credit Wellness and the one-half credit of Physical Education requirement for graduation.
- Completion of two semesters in Health Sciences Education may be used to satisfy one credit of social studies (credit of Psychology and credit of Sociology). Anatomy and Physiology satisfies one of the science credits required for graduation, or it may be offered for one vocational credit.
- Up to two ESL English credits (ESL I, ESL II, ESL III, ESL IV or ESL V) may be used to satisfy English language requirements for graduation. Additional ESL courses may be taken for elective credit. ELL students must earn two units of regular English to complete graduation requirements. The student may be initially placed at any level, but the regular English classes must follow in sequence. The regular English placement should be determined by the needs and goals of each individual student.
- A student who completes an approved supervised occupational education program in Agricultural Education consisting of at least 180 hours will be given one-half credit as an out-of-school experience.
- Agriscience (Agriculture Science) satisfies one credit of life science laboratory credit required for graduation, or it may be awarded for one vocational credit.


## GRADUATION WITH HONORS OR DISTINCTION Policy 5004

 Graduation with State Honors (Ninth grade class beginning with school year 2009-2010)Students who score at or above all of the subject area readiness benchmarks on the ACT or equivalent score on the SAT will graduate with honors.

Readiness Benchmarks:
English - 18
Mathematics - 22
Reading - 21
Science-24

## Graduation with State Distinction (Ninth grade class beginning with school year 2009-2010)

Students will be recognized as graduating with "distinction" by attaining a $B$ average and completing at least one of the following:

- Earn a nationally recognized industry certification
- Participate in at least one of the governor's schools
- Participate in one of the state's all state musical organizations
- Be selected as a national merit finalist of semi-finalist
- Attain a score of 31 or higher composite score on the act (or equivalent e.g., 1360 on the sat, if accepted by the state)
- Attain a score of 3 or higher on at least two advanced placement exams
- Successfully complete the International Baccalaureate Diploma Programme
- Earn 12 or more semester hours of transcripted postsecondary credit


## Shelby County Schools Designation of Exemplary Recognition (applicable to all qualifying students)

In order to best prepare students for college and an ever more competitive global job market, Shelby County Schools supports, encourages and motivates students to challenge themselves by taking the most rigorous course of study.

Students eligible for the Designation of Exemplary Recognition must have earned twelve (12) Honors or Advanced Placement credits (any combination) in Grades 9-12 or a combination of such credits totaling twelve (12), with each Advanced Placement credit equal to 1.5 honors credits. A minimum of two (2) Honors or Advanced Placement courses is required during the senior year.

A qualified graduate will receive a Diploma that indicates the exemplar status and Designation of Exemplary Recognition will be printed on the Graduate's final high school transcript.

## SPECIAL EDUCATION DIPLOMA Policy 5004

A special education diploma may be awarded at the end of their fourth year of high school to students with disabilities who have (1) not met the requirements for a high school diploma, (2) have satisfactorily completed an individualized education program, and (3) have satisfactory records of attendance and conduct. Students who obtain the special education diploma may continue to work towards the high school diploma through the end of the school year in which they turn twenty-two years old.

## PARTICIPATION IN COMMENCEMENT EXCERCISES Policy 6034

Only students who have met all state requirements and mandates for a high school regular diploma or special education diploma by graduation date, shall have the opportunity to participate in commencement exercises. A student's behavior must be acceptable to the school principal in order for the student to participate in the school graduation ceremonies. Students who are under suspension at the time of commencement will not be eligible to participate in commencement exercises.

## EQUIVALENCY HIGH SCHOOL DIPLOMA Policy 5004

The Equivalency High School Diploma will be issued on the basis of successful completion of the General Educational Development Test, as determined by the Tennessee Department of Education and the Tennessee Department of Labor and Workforce Development.

## EARLY GRADUATION REQUIREMENTS Policy 5004

A public school student may complete an early high school graduation program and be eligible for unconditional entry into a public two-year institution of higher education or conditional entry into a public four-year institution of higher education, if the student meets the requirements below:

- Each student desiring to complete an early graduation program shall indicate to the high school principal the student's intent
prior to the beginning of grade nine (9) or as soon thereafter as the intent is known. The intent shall be indicated on a form provided by the department of education and signed by the parent.
- For early graduation and unconditional entry into a public twoyear institution or conditional entry into a public four-year institution, a student shall:

1. Achieve a benchmark score as determined by the state board of education for each subject area in which end-ofcourse examinations are administered;
2. Successfully complete eighteen (18) credits to include:
A. English I, II, III, and IV;
B. Algebra I and II;
C. Geometry;
D. United States History;
E. Two (2) courses in the same foreign language;
F. One (1) course selected from the following: Economics, Government, World Civilization, or World Geography;
G. One (1) course selected from the following: History and appreciation of visual and performing arts; or A standards-based arts course, which may include studio art, band, chorus, dance, or other performing arts;
H. Health;
I. Physical Education;
J. Biology;
K. Chemistry;
3. Have a cumulative grade point average of at least 3.2 on a 4-point scale;
4. Score on either the ACT or the SAT at or above benchmarks set by the Tennessee higher education commission for mathematics and English;
5. Obtain a qualifying benchmark score as determined by the state board of education on a world language proficiency assessment approved by the board; and
6. Complete at least two (2) courses from the following types of courses:
A. AP
B. IB
C. Dual Enrollment
D. Dual Credit

The courses specified in the 18 credits may be dual enrollment or dual credit courses, AP or IB courses, or standard courses for which high school credit is granted. Selected courses, as determined by the state board of education, may be completed at the middle school level.

A student in the early graduation program may take two (2) high school English courses in an academic year.

A student who completes the early graduation program in accordance with these requirements qualifies for unconditional admittance to all public two-year institutions of higher education. A
public four-year institution may accept a student who completes the early graduation program.
A student pursuing early graduation in accordance with these requirements is exempt from additional graduation requirements established by the state board of education. A student who completes the early graduation program shall be awarded a high school diploma.
The state board of education and the Tennessee higher education commission shall set the required benchmarks at scores that demonstrate exemplary high school performance and are indicative of an ability to perform college-level work.

The state board of education or a local board of education shall not impose graduation requirements that would prohibit a student who is pursuing an early graduation program as outlined above from completing high school in less than four (4) years.

## Adjustment of Graduation Requirements - Provisions for Students of Military Parents

SCS shall waive specific courses required for graduation for students of military parents who enroll/transfer into the district if the student has satisfactorily completed similar course work in another district or SCS shall provide reasonable justification for the denial. If a waiver is not granted to a student who would qualify to graduate from the sending school, SCS shall provide an alternative means of acquiring the required course work.

SCS shall accept the exit or end-of-course exams required for graduation from the sending state, norm-referenced achievement tests, or alternative testing in lieu of testing requirements mandated for graduation by the state of Tennessee or SCS. If alternatives cannot be accommodated by SCS for a student transferring in his/her senior year, SCS and the sending district shall ensure the receipt of a diploma from the sending district, if the student meets graduation requirements in the sending district.

Additionally, for a student of military parents transferring to SCS at the beginning or during his/her senior year, who is ineligible to graduate after all alternatives have been considered, SCS and the sending district shall ensure the receipt of a diploma from the sending district, if the student meets graduation requirements in the sending district. If the sending district is not a member of the Interstate Commission, SCS shall use best efforts to facilitate the on-time graduation of the student through adjustment of graduation requirements based on course waivers and acceptance of the sending state's examinations/tests or alternative testing.
(See the applicable Student Guide for graduation requirements for students entering the ninth grade before school year 20092010.)

## ASSESSMENT OF LEARNING

ACTs Education Planning Assessment System (EPAS) (or equivalent College Board assessments) will be administered annually.

- The EXPLORE test will be given to all eighth (8th) grade students in the fall. Middle schools are responsible for developing interventions for students who did not perform to the level needed to be on track to reach the ACT Readiness Benchmark. Special education students who are working towards a regular diploma are required to take the exam.

Students who perform well on the tests shall be recommended for accelerated, advanced, and more rigorous course work such as honors and advanced placement courses.

- The PLAN test will be given to all tenth (10th) grade students in the fall as a mid-point assessment of progress toward meeting the ACT Readiness Benchmark scores. The intervention plans for students who have not progressed sufficiently will be adjusted to better assist students to reach the ACT Readiness Benchmark scores. Special educational students who are working towards a regular diploma are required to take the exam. Students who perform well on the tests shall be recommended for accelerated, advanced, and more rigorous course work such as honors and advanced placement courses.
- The ACT test will be given to all eleventh ( 11 th) grade students. Special education students who are working towards a regular diploma are required to take the exam. Students who perform well on the tests shall be recommended for accelerated, advanced, and more rigorous course work such as honors and advanced placement courses.
- Additionally, all eleventh grade students will participate in the state writing assessment.

End-of-course examinations will be given to students taking the following courses: English I, English II, English III, Algebra I, Algebra II, U.S. History, Biology I, (with Geometry examination dates TBD), Chemistry and Physic. The results of these examinations will be factored into the student's grade at a percentage determined by the State Board of Education in accordance with state law. (T.C.A. §49-1-302 (2). Students will not be required to pass any one examination, but instead students must achieve a passing score for the yearly grade in accordance with the State Board of Education s uniform grading policy. End-of-course examinations count $20 \%$ of the student's grade in the semester taken for school years 2009-2010 and 2010-2011 and count $25 \%$ of the student's grade each year thereafter.

## TESTING REQUIREMENTS FOR STUDENTS WITH DISABILITIES

Beginning in the 2011-2012 school year, End of Course examination will count $25 \%$ of the student's semester grade. Students will not be required to pass any one examination, but instead students much achieve a passing score for the yearly grade in accordance with the State Board of Education's uniform grading policy.

## KEY REQUIREMENTS OF THE ALTERNATE PERFORMANCE-BASED ASSESSMENT (APBA)

Students with disabilities must participate in the state End of Course (EOC) assessments. These students must receive appropriate support and accommodations with the goal of mastering course content and passing the EOC assessment. However, a student on an active IEP whose disability interferes with performance on the EOC assessment may demonstrate mastery of core knowledge and skills for that course through the approved alternative performance based assessment.

The IEP team must determine if the disability is likely to have an adverse effect on performance on the EOC assessment. Discussion of the potential need for the alternative performance based assessment may take place at the annual IEP meeting and be appropriately documented.

In the event the student failed the course due to a failing EOC score, the alternative performance based rubric will be used to assess the level of mastery of the course content. The student's level of achievement of the core knowledge and skills for each of state end of course test is determined by the teacher of record in consultation with the IEP team and special education providers, using the state approved alternative performance based assessment document.

Results of the performance-based assessment will not improve Adequate Yearly Progress (AYP) calculations for the school, but will count toward graduation rate. Students with disabilities who successfully participate in this process will meet the course requirement leading to a regular high school diploma.

As soon as the EOC testing results are returned to the school from the state and it's determined that the student failed the course due to the failing EOC score the APBA rubric score may replace the EOC score on the students' report card.

- The student must have been passing the course prior to the application of the EOC score.
- The APBA rubric documents mastery of course level objectives.
- The regular education and special education teacher work together to determine level of mastery of the content by the student.
- The APBA percent/adjusted score may be applied to the students' report card in place of the EOC score if the APBA percent/adjusted score when figured in course grade calculation raises the score to above passing.
- The regular education teacher signs the APBA documentation folder as the teacher of record. In some cases, the special education teacher may be the teacher of record.
- The new rubric score does not replace the EOC Score that is reported to the state for AYP in achievement but it may enable the student to earn the credit for the course and help the student meet graduation requirements for a high school diploma.


## WRITING ASSESSMENT

The Tennessee Comprehensive Assessment Program (TCAP) Writing Assessment requires all 11 th grade students to encounter a reading stimulus and write a rough draft essay in response to an assigned prompt within a limited time period. Students will have a one hour time limit to complete the online writing assessment.

## ENGLISH LANGUAGE LEARNER (ELL) STUDENTS AND TENNESSEE MANDATED ASSESSMENTS

The State of Tennessee English Language Learners (ELL) Testing Policy states, "The purpose for including our student population of English Language Learners (ELL) in our Tennessee assessments is to help ensure that children who are limited English proficient, including immigrant children and youth, attain English proficiency, develop high levels of academic attainment in English, and meet the same challenging State academic content and student academic achievement standards as all other children are expected to meet." There are NO exemptions of ELL students from any State assessments. However, there are some allowable accommodations for ELL students.

In addition to participation in the state assessments, an annual assessment of English Proficiency using the state approved language proficiency assessment must be given. The current test being used is the English Language Development Assessment (ELDA). A score of less than English proficient on any subtest qualifies students as ELL.

## ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB)

The ASVAB is a nationally normed test developed and maintained by the Department of Defense. Students are provided with scores in academic, vocational and career exploration areas. ASVAB results are intended to help students understand their academic strengths and weaknesses and judge their readiness for entry into a program of study or military training program. While most high schools offer students the opportunity to take the ASVAB, it is not mandatory for students to take it. Please be aware that a military recruiter may contact you after taking the ASVAB unless you opt out on the ASVAB answer sheet. Please contact your child s school if you do not want your child to participate in ASVAB testing.

This change in law affects those students in the graduating class of 2002 and thereafter. Please refer to the section on Requirements for Diplomas.

## ATTENDANCE AND EXCUSES Policy 6014

All students are expected to attend school on each day that school is officially in session. Only the following reasons will be considered for excused absences:

1. Illness or hospitalization of student. The District may require a parent conference and/or physician verification to justify absences after the accumulation of ten (10) days of absence during a school year. Notes must be date specific and will be required for subsequent absences beyond ten (10) days.
2. Death or serious illness within the student's immediate family.
3. When the student is officially representing the school in a school sponsored activity.
4. Special and recognized religious holidays regularly observed by persons of their faith.
5. Legal court summons not as a result of the student's misconduct.
6. Extenuating circumstances over which the student has no control as approved by the principal.
7. If a student's parent, custodian or other person with legal custody or control of the student is a member of the United States Armed Forces, including a member of a state National Guard or a Reserve component called to federal active duty, the student's Principal shall give the student:
a. An excused absence for one (1) day when the student's parent, custodian or other person with legal custody or control of the student is deployed;
b. An additional excused absence for one (1) day when the student's parent, custodian or other person with legal custody or control of the student returns from deployment; and
c. Excused absences for up to ten (10) days for visitation when the student's parent, custodian or other person with legal custody or control of the student is granted rest and recuperation leave and is stationed out of the country.
d. Excused absences for up to ten (10) days cumulatively within the school year for visitation during the deployment cycle of the student's parent, custodian or other person with legal custody or control of the student. Total excused absences under this section (c) and (d) shall not exceed a total of ten (10) days within the school year. The student shall provide documentation to the school as proof of the deployment of the student's parent, custodian or other person with legal custody or control of the student.

The provisions of the compulsory School Attendance Law, TCA 49-63001, will be enforced for all students.

## GRADING SYSTEM - GRADES 6-12 Policy 5015

The grading system for all 6-12 grades has been established in accordance with the Tennessee Uniform Grading System.

## Report Cards and Interim Reports

Report cards are sent to parents at the end of each nine-week period, unless the parents/guardians have exercised their option for paperless reports. Parents must be notified within a report card period when a student is not doing acceptable work. At the midpoint of the nine weeks, parents will be notified of students' progress; all will receive an interim report. Parent-teacher conferences should be held for gaining parental support in an effort to improve student performance.

## Conduct Grades

In all schools, students' conduct is graded as excellent, satisfactory, needs improvement or unsatisfactory, and the initial letter "E", "S", " N ", or "U" is used to report the conduct grade. It is to be reported at each grading period on the report card with each subject grade.

## Grade Adjustment

NOTE: If an erroneous grade has been entered, correction must be made and a new card issued to the student.

## Grading Scale

Grades in all courses/subjects, including art, music, and physical education, will be reported on report cards and transcript records using numerical values as indicated below:

| A | $93-100$ |
| :--- | :--- |
| B | $85-92$ |
| C | $75-84$ |
| D | $70-74$ |
| F | Below 70 |

## Nine-Week Grades

Grades given at the end of each nine-week period will be determined by the average of daily work, oral and written assignments, projects, and tests. A minimum of twelve (12) grades for the nine-week period should be recorded for each subject. Fifty percent ( $50 \%$ ) of the twelve grades should be earned and recorded by the interim of the nine-week term. This gives the teachers the basis for the grades at the end of the grading period. The teacher will assess all student assignments and weigh the value of grades given for various assignments within the nine-week term in computing the term grade. This procedure will enable the teacher to allow for individual student differences in the grading process. Homework assignments are of
value in affording students needed practice, and such assignments should be made within practicable limits.

## Grade Restrictions

A student's academic grade is solely intended to reflect the student's acquired knowledge, ability, and/or skills in the designated subject. Therefore, academic credit/points may not be awarded or deducted for any purpose that is not directly related to the student's academic performance. For example, academic credit/points may not be awarded as an incentive to participate or achieve a certain goal in a school fundraising event. Academic credit/points may not be deducted for failure to purchase certain brands or types of school supplies. A reasonable number of academic points may be deducted from a student's homework or academic assignment grade for failure to submit the homework or other assigned academic work on the date specified by the teacher.

## Make-up Work

Regular attendance should be necessary for passing grades. In the event of an excused absence, students are expected to make up work missed within a reasonable time. In the event of an unexcused absence, one day of makeup time shall be allowed for each day of unexcused absence, if the following conditions are met. The parent of a student or a student with an unexcused absence must submit a written request to the teacher to makeup the work and must participate in an appropriate intervention (e.g., student or parent conference with the teacher, Saturday school, online tutorial, other appropriate intervention determined and scheduled by the teacher). For absences due to long-term suspension (over 10 days)/expulsion, the program of making up work shall be in accordance with state law.

## Semester Grades

Semester exams are not given in grades 6-8, except for high school level courses that are taken in eighth $\left(8^{\text {th }}\right)$ grade. Students who successfully complete a high school course will earn high school credit. Semester grades earned in high school courses will be recorded on the high school transcript. The grades earned will be included in the high school GPA.

## Tennessee Comprehensive Assessment Program (TCAP) Grade Inclusion

Beginning with the 2011-2012 school year, for students in grades 68, scores on the Tennessee Comprehensive Assessment Program (TCAP) shall comprise $15 \%$ of the student's final spring (second) semester grade in mathematics, reading/language arts, science and social studies.

## Additional Grading Consideration

Students who meet only the minimum requirements should be given minimum passing grades. No student should fail for the semester or year if the only failing grade is that of the semester examination, provided the student has made an honest effort on the examination.

## Awarding Units of Credit

Credits will be awarded in . 5 increments upon successful completion of a semester. Additionally, a student will receive one full credit in the course if he/she receives a passing yearly grade in the course.

## Non-EOC Courses

For courses which have no Tennessee State mandated EOC exam required during a given semester, semester grades are determined by counting the two quarter grades as $80 \%$ and the semester examination, or a comparable evaluation, as $20 \%$.

## Tennessee State-Mandated EOC Exam Courses

For courses that have a Tennessee State mandated EOC exam required during second semester, the semester grades are determined as follows:

1. First semester grades are determined by counting the two quarter grades as $80 \%$, the semester examination, or comparable evaluation, as $20 \%$.
2. Second semester grades are determined by counting the two quarter grades as $65 \%$, the semester examination, or comparable evaluation, as $10 \%$, and the state mandated exam as $25 \%$.

## Advanced Placement and International Baccalaureate

In all Advanced Placement and International Baccalaureate courses/advanced courses comparable to Advanced Placement courses at the secondary level five (5) points shall be added to each quarter numerical grade and each semester exam grade. The two 9 week grades and the semester exam grade, with the points included, will be used to calculate the semester average.

## Honors Courses/Advanced Courses

In all grades for Honors courses/advanced courses comparable to Honors courses at the secondary level, three (3) points shall be added to each quarter numerical grade, and each semester exam grade. The two 9 week grades, the semester exam grade, with the added Honors course points included, will be used to calculate the semester average.

## Exemption from Semester Exams

A student having a 90 or higher average for the two terms in a specific course, and having three (3) or fewer excused absences in that same course will be exempted from the semester exam if the student desires. The number of excused absences allowed under this provision may be adjusted by the principal in extenuating circumstances, e.g. long-term illness or hospitalization. When a student is exempted from the examination, the semester average will be the average of the two term grades and any state-mandated exam as outlined above. ANY UNEXCUSED ABSENCE IN THE COURSE WILL DISQUALIFY THE STUDENT FROM ALL EXEMPTIONS. EXEMPTIONS APPLY ONLY TO TEACHER-MADE SEMESTER EXAMINATIONS. 12th grade students are eligible for exam exemption during both semesters. All other students in high school courses who meet the above requirements may be exempted for only the second semester exam.

## ADVANCED COURSES Policy 5005 HONORS COURSES

## Framework of Standards for Honors Courses

Honors courses will substantially exceed the content standards, learning expectations, and performance indicators approved by the State Board of Education. Teachers of honors courses will model instructional approaches that facilitate maximum interchange of ideas among students: independent study, self-directed research and learning, and appropriate use of technology. All honors courses must include multiple assessments exemplifying coursework (such as
short answer, constructed-response prompts, performance-based tasks, open-ended questions, essays, original or creative interpretations, authentic products, portfolios, and analytical writing). Additionally, an honors course shall include a minimum of five (5) of the following components:

- Extended reading assignments that connect with the specified curriculum.
- Research-based writing assignments that address and extend the course curriculum.
- Projects that apply course curriculum to relevant or real-world situations. These may include oral presentations, PowerPoint, or other modes of sharing findings. Connection of the project to the community is encouraged.
- Open-ended investigations in which the student selects the questions and designs the research.
- Writing assignments that demonstrate a variety of modes, purposes, and styles.

1. Examples of mode include narrative, descriptive, persuasive, expository, and expressive.
2. Examples of purpose include to inform, to entertain, and to persuade.
3. Examples of style include formal, informal, literary, analytical, and technical.

- Integration of appropriate technology into the course of study.
- Deeper exploration of the culture, values, and history of the discipline.
- Extensive opportunities for problem-solving experiences through imagination, critical analysis, and application.
- Job shadowing experiences with presentations that connect class study to the world of work.

All course types that meet the above framework will be classified as honors and may be weighted by adding 3 points to all grades used to calculate the semester average.

Note: All high school courses, including honors courses, taken prior to high school enrollment will count as elective credit.

## District Advanced Courses

Courses may be determined by the District to be classified as advanced. District advanced courses that are identified by the District as comparable to Honors courses or Advanced Placement courses shall receive additional points in the same manner as the Honors courses or Advanced Placement courses, respectively.

## Technical Courses that Offer National Industry Certification

 Technical courses that offer a National Industry Certification through a nationally recognized examination may be weighted by adding 3 points to all grades used to calculate the semester average.
## Dual Enrollment/Dual Credit

Eligible students in grades $9-12$ have the opportunity to enroll in college level courses and earn both college credits and credits toward their high school diplomas. All qualifying students may enroll in college level courses that are conducted at the high school during the school day and are taught by a bona fide college professor or a licensed SACS approved adjunct secondary teacher. Courses must
be taught in accordance with an agreement between the participating institution of higher learning and Shelby County Schools. In addition, qualifying $11^{\text {th }}$ and $12^{\text {th }}$ grade students may enroll in college level courses that are conducted at an institution of higher education or courses provided online by the postsecondary institution. The institution of higher education must be accredited by the state or by a state-approved accrediting agency.

Dual Enrollment/Dual Credit courses that are identified by the District as comparable to Honors courses or Advanced Placement courses shall receive additional points in the same manner as the Honors courses or Advanced Placement courses, respectively.

## Advanced Placement Courses and International Baccalaureate Courses

Advanced Placement and International Baccalaureate courses offered by the District must substantially incorporate the learning objectives and course descriptions as defined by the College Board or International Baccalaureate Organization.
Advanced Placement and International Baccalaureate courses that have end-of-course national examinations qualify for the addition of 5 points to grades used to calculate semester averages.

## GRADE CLASSIFICATION Policy 6032

Students in Shelby County high schools entering high school beginning with the 2009-2010 school year are to be classified as follows:

| Less than five (5) credits | 9th grade |
| :--- | ---: |
| Earned five (5) credits and passed English 9 | 10th grade |
| Earned eleven (11) credits and passed English 10 | 11th grade |
| Earned sixteen (16) credits* and passed English 11 | 12th grade |

* In accordance to the Tennessee State Department of Education requirement, a student classified as a 12th grader must be enrolled in a full schedule of credit-bearing courses his/her senior year.

Shelby County Schools students who entered high school prior to the 2009-2010 school year are to be classified as follows:

| Less than five (5) credits | 9th grade |
| :--- | ---: |
| Earned five (5) credits and passed English 9 | 10th grade |
| Earned ten (10) credits and passed English 10 | 11th grade |
| Earned 14 credits ${ }^{*}$ and passed English 11 | 12th grade |

*A student who has earned fewer than fourteen (14) credits but is enrolled in enough credits to meet graduation requirements by the date of graduation shall be classified as 12 th grade if the student has also passed English 9, 10 and 11.

## COURSE LOAD Policy 5004

All students in grade nine (9) through twelve (12) shall be enrolled each semester in subjects that will produce the minimum of five (5) units of credit for graduation per year. Hardship or gifted cases maybe appealed by the student to the Superintendent with further appeal to the Board.

## DROPPING A COURSE Policy 5006

If in the opinion of the principal, counselor, teacher(s), or parent a student is experiencing extreme difficulty in a subject, a student may drop a course, including a district-offered online course, by the end of the first nine weeks without that subject being recorded on the
student's cumulative record. If a student should drop a course from his/her schedule after the end of the first nine weeks, then that course and a failing grade will be recorded on the student's cumulative record.

The following procedures should be followed should a student encounter difficulty in making adequate academic progress in a course with special requirements such as Honors Courses, Advanced Placement Courses, International Baccalaureate Courses, courses with national industry certification, online courses, and dual enrollment/dual credit courses:

- The student must first consult the teacher for ways to improve.
- If academic difficulty continues, the parent may request a school meeting to include the teacher, the student, the parent(s), and the appropriate school counselor along with the appropriate assistant principal. This team will form a plan of action.
- The final approval for a student to drop a course is at the discretion of the principal and shall be based upon multiple factors, including available space in an alternative class at the time of the request.


## GUIDANCE ON CLASS RANK

## ADDITIONAL GRADE POINTS FOR ADVANCED COURSES

Three (3) Grade Points Added to Quarter Average and Semester Exams for the following:

- Honors Courses
- District Advanced Courses (Honors Level)
- Dual Enrollment/Dual Credit (Honors Level)
- Technical Courses that offer National Industry Certification

Five (5) Grade Points Added to Quarter Average and Semester Exams for the following:

- Advanced Placement Courses
- District Advanced Courses (AP Level)
- Dual Enrollment/Dual Credit (AP Level)
- International Baccalaureate


## COMPUTING GRADE POINT AVERAGE (GPA)

The GPA is computed using the semester grades earned in grades 9-12 using numerical values inclusive of semester averages and semester exams with additional grade points and the following quality point scale:

| Standard | Honors Level | APIB Level |
| :--- | :--- | :--- |
| $A=4$ grade points | $A=4.5$ grade points | $A=5$ grade points |
| $B=3$ grade points | $B=3.5$ grade points | $B=4$ grade points |
| $C=2$ grade points | $C=2.5$ grade points | $C=3$ grade points |
| $D=1$ grade point | $D=1.5$ grade point | $D=2$ grade point |
| $F=0$ grade points | $F=0$ grade points | $F=0$ grade point |

## DETERMINING CLASS RANK

1. Fifteen (15) units at the beginning of a senior year will be required for calculating grade point average and determining class rank for honors.
2. For class rank, the GPA is determined at the end of the first semester of the senior year.

- Each semester grade for grades 9 through 11 and the first semester grades for grade 12 will be counted for all subjects.
- For semester courses of more than $1 / 2$ units of credit, the grade will be counted for each $1 / 2$ unit of credit. Examples: a semester technical course for 1 unit with a grade of $B$ would be counted as two (2) B's; a semester vocational course for $11 / 2$ units with a grade of $A$ would be counted as three (3) A's.

3. Marks for all subjects attempted for which unit credit or fractional unit credit is given, whether passed or failed, are recorded and used in computing grade point average. Summer school credits are to be included in computing grade point average.
4. The student with the highest grade point average is ranked first in the class; the student with the second highest grade point average is second; etc.
5. If two or more students have the same grade point average, the numerical averages of the students shall be determined. The student with the highest numerical average shall receive the highest rank; the student with the next highest numerical average shall receive the next highest rank; etc.
6. If two or more students have the same numerical average, those students should be given the same rank, one position below the next highest student. The student next below those tied should be given a rank determined by the total number of students whose average exceeds his. (For example, if three students in a class of 75 are tied for fifth place, they should be given a rank of $5 / 75$. The next student would be ranked $8 / 75$.)
7. Students who do not quality for inclusion in the class rank because they lack the minimum semesters needed may be identified as "non-qualifiers" and assigned the class rank that they would have received if they had qualified. For example, a student who enrolls in a school within two semesters of the senior year would be identified as a "non-qualifier" with the corresponding rank. Students in the non-qualifier rank should not affect the ranking of students in the class rank of qualifying students.

## SELECTION OF VALEDICTORIAN AND SALUTATORIAN

To be eligible for the distinction as Valedictorian or Salutatorian, the student must have been enrolled and completed his/her final four (4) semesters at the high school from which the student is graduating.

## INDIVIDUALIZED EDUCATION PROGRAMS (IEP)

Every decision made for a student with a disability must be made on the basis of the student's needs. A current IEP must be written for each student with a disability at least annually. The IEP enables parents and school personnel make decisions jointly about the educational program for a student with a disability. The IEP has the following purposes and functions:

- The IEP is an individualized plan of specially designed instruction for a student with a disability whose educational progress is adversely affected.
- The IEP meeting serves as a communication vehicle between parents and school personnel and enables them, as equal participants, to jointly decide what the student s needs are, what services will be provided to meet those needs, and how best to meet post-secondary goals.
- The IEP process provides an opportunity for resolving any differences between the parents and the school concerning a student s needs.
- The IEP sets forth, in writing, a commitment of resources necessary to enable a student to receive needed special education and/or related services.
- The IEP is a management tool that is used to ensure that each student with a disability is provided special education and/or related services appropriate to the student s particular learning needs.
- The IEP is a compliance/monitoring document that may be used by authorized monitoring personnel from SCS or governmental agencies to determine whether a student with a disability is actually receiving the Free Appropriate Public Education (FAPE) agreed to by the parents and the school.
- The IEP serves as an evaluation instrument for use in determining the extent of the student s progress toward meeting the projected outcomes.


## Actions Requiring IEP Team Meeting

An IEP Team meeting is required:

- When it is determined that a student is eligible for services;
- When it is determined that a re-evaluation is needed;
- When it is determined that a student continues to be eligible for special education services;
At least annually;
- When a student is suspended from school 10 days or more.
- Whenever a change (more or fewer services) in the education and/or related services are being considered.


## Composition of IEP Team

An IEP Team for each student with a disability includes:

- One or both of the student s parents;
- A regular education teacher
- The students' special education teacher or certified/licensed provider, or if the student has been previously enrolled in school, a teacher or other specialist qualified to teach a student of his/her age in the area(s) of the student's suspected special education needs;
- A representative of the local school system, other than the student's teacher, who is an administrator or designee, is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities, is knowledgeable about the general curriculum, and has the authority to allocate necessary resources to ensure implementation of the IEP;
- An individual who can interpret the instructional implications of evaluation results, who may also fulfill another role on the team;
- At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the student, including related services personnel as appropriate. The determination of the knowledge or special expertise of any individual shall be made by the party (parents or agency) who invited the individual to be a member of the IEP.


## Current Performance Areas

The present levels of performance areas should be listed on the IEP. While the IEP Team discusses each area of performance, the IEP need only describe those areas in which the student's disability has
an adverse effect one education. The description focuses on the student's level of performance in each such area.

The IEP should describe the effect of the student's disability on his/her educational performance, which, to the greatest extent possible, is stated in objective and measurable terms. Performance levels must be written in a manner that is meaningful and useful to persons responsible for directly providing the student with special education and/or related services in all areas of educational performance adversely affected by the disability.

## Participation with Non-disabled Peers

The IEP must specify the amount of time the student will participate with non-disabled peers. The IEP must describe those aspects of academic, nonacademic, or extracurricular services or activities in which the student will participate with non-disabled peers at least part of the school day. When it is determined that the student cannot participate with non-disabled peers, even with the use of supplementary aids and services, the IEP must clearly document the basis for this decision. Non-academic areas include physical education, art, music, computer, library, vocational, and consumer education, as well as meals, recess periods, athletics, clubs, and recreational activities.

## Accommodations

The IEP must include any accommodations that are necessary for the student to access the regular education program curriculum. Such accommodations may include instructional methodologies, staffing patterns, special materials, special equipment, physical site adaptations/modifications, and/or classroom organization approaches recommended in support of annual goals and short-term instructional objectives. In making this determination, the IEP Team will also consider the educational needs and learning, incentives, motivational, and communication styles of the student.

## Annual or Special Review of IEP

The IEP is reviewed annually or more often as requested by school staff or a parent. Consideration should be given to reviewing the existing comprehensive evaluation report, and consideration must be given to additional information gathered about the student from all sources since the last IEP was developed.

In addition, the IEP Team must determine the following:

- Whether the annual goals for the student are achieved, and
- What portion of the IEP objectives the student has met.

The IEP Team must revise the IEP as appropriate to address the following:

- Any lack of expected progress toward the annual goals and participation in the general curriculum where appropriate;
- The results of any re-evaluation;
- Information as provided by or to the parents;
- The student s anticipated needs; or
- Other matters.


## Progress Reporting

The IEP Team establishes annual goals and intermediate objectives for students with disabilities. Schedules and criteria for attainment of the intermediate objectives may be included in the IEP. The student' s progress toward attainment of the established intermediate
objectives must be assessed according to the schedules and criteria. Letter grades may be determined in conjunction with the modifications, criteria, and accommodations that are dictated by the IEP.

Students with disabilities begin earning units of credit in the ninthgrade and have until the year in which they reach age 22 to complete the recommended program of services and the IEP. They may receive the regular, honors, or special education diploma provided all requirements have been met. Students will enroll in specified classes determined by the IEP Team recommendations.

The IEP covers the regular nine-month school year and may cover Extended Year Service. Students may enroll in additional courses during the semester upon the recommendation of the IEP Team and the review of the IEP. Additionally, upon the recommendation of the IEP Team and the review/revision of the IEP, a student may drop an elective course before the end of the first report card period of a semester.

## OPTIONAL SCHOOLS

Shelby County Schools offers a variety of school programs through its Department of Optional Schools and Advanced Academics. These specialized programs give parents options in selecting a public education that best fits their children's talents and abilities (provided their children meet specific admission requirements).

Forty-four (44) schools throughout Shelby County currently offer optional programs at different grade levels. These programs prepare children for successful lives in the 21st century regardless of which career path they eventually choose. The Optional Programs include college preparatory, business and finance, aviation, travel and tourism, engineering, technology and careers, health sciences, creative and performing arts, international studies, Montessori, enriched academics, Dual Language Immersion, Developing Masterful Mathematical Minds (DM ${ }^{3}$ ) Environmental Science, International Baccalaureate, Media Arts and Public Service (MAPS), Public Service and Communication Arts and Science, Technology, Engineering and Mathematics (STEM)or (STEAM).

Some Optional Programs offer more intensive or additional courses of study than found in the traditional curriculum. They may use different methods in unique learning environments. But above all, they give parents the educational options their children deserve.

Optional schools are tuition-free for Shelby County residents and accessible to all. Some students from outside Shelby County and even from out-of-state pay tuition to attend optional schools. This depends upon space availability with first priority going to qualified Shelby County residents.

## INTERSCHOLASTIC ATHLETICS POLICY 6051

School interscholastic athletic programs must place the highest priority on academic achievement and character development. Participation in interscholastic athletics as an extracurricular activity provides students with important skills and habits that can assist in character development and academic proficiency; such as, team building, leadership, self-discipline, healthy competition, integrity and physical fitness. Shelby County Schools, therefore, requires school athletic personnel to monitor the academic progress of student
athletes by encouraging them to complete their school assignments on time, reviewing their academic progress and providing them with information to obtain academic support, when necessary.

Shelby County Schools considers participation in interscholastic athletics a privilege afforded to students by the District. Therefore, participation in interscholastic athletics is not protected by due process appeals procedures related to student discipline that are afforded to all students under state law or Board Policy. Student athletes shall be subject to athletic sanctions, up to and including dismissal from participation in interscholastic athletics for negative or inappropriate behavior, at any time during a calendar year. The Superintendent shall develop conduct guidelines for participation in interscholastic athletics. In addition, student athletes whose behavior also violates the Shelby County Schools Student Code of Conduct shall be subject to disciplinary actions outlined in the Code.

Administrators, principals, athletic directors and coaches must follow appropriate policies, rules and regulations established by SCS, the Athletic Policy Determining Committee (which governs the Shelby County Interscholastic Athletic Association), the Tennessee Secondary Schools Athletic Association (TSSAA) and the National College Athletics Association (NCAA). Additionally, principals shall be held responsible for the administration and control of the interscholastic athletic program within his/her school.

Shelby County Schools believes that male and female students should have an equal opportunity to participate in interscholastic athletic activities, including equality of opportunity in sports offerings, in equipment purchases and in educational opportunities.

Before being allowed to participate in the first practice session of a sport, information required to participate outlined in Shelby County Schools policy 6051 Interscholastic Athletics must be on file in the principal's office for each district or home school participant.

## COLLEGIATE ACADEMIC REQUIREMENTS FOR STUDENT ATHLETES

## Academic-Eligibility Requirements

## DIVISION I

Uses a sliding scale based on Core GPA, and ACT/SAT scores 16 Core Courses:

- 4 years of English
- 3 years of mathematics (Algebra I or higher, Bridge Math is not accepted)
- 2 years of natural/physical science (1 year of lab if offered by high school)
- 1 year of additional English, mathematics or natural/physical science
- 2 years of social science
- 4 years of additional courses (from any area above, foreign language or non-doctrinal religion/philosophy).

NCAA DIVISION I SLIDING SCALE

| New Core GPA / Test Score Sliding Scale |  |  |
| :---: | :---: | :---: |
| Core GPA | SAT | ACT |
| (Sum of scores) |  |  |
| 3.550 \& above | 400 | 37 |
| 3.525 | 410 | 38 |
| 3.500 | 420 | 39 |
| 3.475 | 430 | 40 |
| 3.450 | 440 | 41 |
| 3.425 | 450 | 41 |
| 3.400 | 460 | 42 |
| 3.375 | 470 | 42 |
| 3.350 | 480 | 43 |
| 3.325 | 490 | 44 |
| 3.300 | 500 | 44 |
| 3.275 | 510 | 45 |
| 3.250 | 520 | 46 |
| 3.225 | 530 | 46 |
| 3.200 | 540 | 47 |
| 3.175 | 550 | 47 |
| 3.150 | 560 | 48 |
| 3.125 | 570 | 49 |
| 3.100 | 580 | 49 |
| 3.075 | 590 | 50 |
| 3.050 | 600 | 50 |
| 3.025 | 610 | 51 |
| 3.000 | 620 | 52 |
| 2.975 | 630 | 52 |
| 2.950 | 640 | 53 |
| 2.925 | 650 | 53 |
| 2.900 | 660 | 54 |
| 2.875 | 670 | 55 |
| 2.850 | 680 | 56 |
| 2.825 | 690 | 56 |
| 2.800 | 700 | 57 |
| 2.775 | 710 | 58 |
| 2.750 | 720 | 59 |
| 2.725 | 730 | 59 |
| 2.700 | 730 | 60 |
| 2.675 | 740-750 | 61 |
| 2.650 | 760 | 62 |
| 2.625 | 770 | 63 |
| 2.600 | 780 | 64 |
| 2.575 | 790 | 65 |
| 2.550 | 800 | 66 |
| 2.525 | 810 | 67 |
| 2.500 | 820 | 68 |
| 2.475 | 830 | 69 |
| 2.450 | 840-850 | 70 |
| 2.425 | 860 | 70 |
| 2.400 | 860 | 71 |
| 2.375 | 870 | 72 |
| 2.350 | 880 | 73 |
| 2.325 | 890 | 74 |
| 2.300 | 900 | 75 |
| 2.275 | 910 | 76 |
| 2.250 | 920 | 77 |
| 2.225 | 930 | 78 |
| 2.200 | 940 | 79 |
| 2.175 | 950 | 80 |
| 2.150 | 960 | 80 |
| 2.125 | 960 | 81 |
| 2.100 | 970 | 82 |
| 2.075 | 980 | 83 |
| 2.050 | 990 | 84 |
| 2.025 | 1000 | 85 |
| 2.000 | 1010 | 86 |

*ACT/SAT scores must be reported to the eligibility center directly from the testing agency. When registering for the ACT/SAT, input the
eligibility center code of 9999 to make sure the score is reported directly to the eligibility center.

## DIVISION II

Division II has no sliding scale. The minimum core grade point average is 2.000 . The minimum SAT score is 820 (verbal and math sections only) and the minimum ACT sum score is 68.

## 16 Core Courses:

- 4 years of English.
- 4 years of mathematics (Algebra I or higher Bridge Math is not accepted).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 2 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 3 years of additional courses (from any area above, foreign language or non-doctrinal religion/philosophy).

Check your high school's list of approved core courses at the clearinghouse Web site at www.ncaaclearinghouse.net or ask your high school counselor.

## Grade-Point Average

How Your Core-Course Grade-Point Average Is Calculated The clearinghouse will calculate the grade-point average of your core courses on a 4.000 scale. The best grades from your NCAA core courses will be used. Grades from additional core courses you took will be used only if they improve your grade-point average.

The clearinghouse will assign the following values to each letter grade:
A - 4 points
C - 2 points
B-3 points
D-1 point

## DIVISION III

Division III does not use the NCAA Initial-Eligibility Clearinghouse. Contact your Division III college regarding its policies on financial aid, practice and competition.
**Remember, meeting the NCAA academic rules does not guarantee your admission into a college. You must still apply for admission

## SECTION II

## Course Descriptions

## ENGLISH LANGUAGE ARTS

The foundation of an educational program rests upon the student s ability to communicate effectively. The English/Language Arts curriculum sets high standards for the acquisition and utilization of language skills, thus providing the student with the ability to achieve educational, vocational and personal goals.

To enhance language proficiency, the English/Language Arts program emphasizes eight standards: language, communication, writing, research, logic, informational text, media, and literature. Providing competence in the language arts allows high school graduates to accomplish the tasks of everyday life, to communicate opinions and ideas, to expand the thinking process, and to broaden the imagination.

The core English courses, grades 9-12, must be completed sequentially and are required for graduation. Basic Speech, Forensics, and Mass Media do not satisfy college entrance requirements. Students desiring a Speech and Drama major should refer to the Fine Arts course listings.

Preparing students for success on standardized tests such as the TCAP End-of-Course Test and the ACT and SAT college entrance exams is emphasized in all Shelby County Schools secondary Language Arts classes.

End-of-Course examinations will be given in English I, English II, and English III. The results of these examinations will be factored into the student s grade at a percentage determined by the State Board of Education.

End-of-Course examinations count 20\% of the student's grade in the semester taken for school years 2009-2010 and 20102011 EOC's count $25 \%$ of the student s grade each year thereafter. Before the first administration of the End-of-Course tests the State Board of Education will develop and approve a schedule to allow for phasing up to the $25 \%$ weight for the test grade. Student will not be required to pass any one examination, but instead students must achieve a passing score for the yearly grade in accordance with the State Board of Education's uniform grading policy.

## Intellectually Gifted and Talented English I

Grade 9
One credit/One year
Prerequisite(s): Certified Intellectually Gifted
The Intellectually Gifted and Talented English I program is designed to provide high achieving students the opportunity to further develop skills in higher-level thinking, traditional and creative research, group discussion, public speaking, creativity, and independent study. Students are expected to grasp quickly the principles of grammar, composition, and vocabulary appropriate for this grade level, thereby providing time for an expanded course of study in which their creative and analytical thinking and writing skills are enhanced. Teaching strategies for the gifted are incorporated into the language arts curriculum and are implemented through the in-depth study of traditional and contemporary literature, current events, and selected mini-studies that are coordinated by the teaching staff.

## English I

Grade 9
One credit/One year
Prerequisite(s): None
English I is designed to help students continue the mastery of essential literacy skills. Emphasis is placed on developing strategies for effective expression in speaking, writing and representing and for comprehension in listening, reading and viewing a variety of texts. Vocabulary, thinking and grammar instruction support these processes. Authentic performance such as reading charts, maps and graphs, completing job applications and reading for pleasure are stressed. Literature involves students in a survey of multiple genres such as the short story, poetry, essay, drama, autobiography, biography and novel.

Students enrolled in English I (including Intellectually and Talented, English I) are required to take the English I End-of-Course test, which counts as the designated percent of the semester grade in the semester in which the test is administered.

## English II

Grade 10 (required)
One credit/One year
Prerequisite(s): English I (Grade 9)
English II is a course designed to continue the study, review and maintenance of basic literacy skills in reading and composition. The greater part of grammar and vocabulary instruction is based upon individual weaknesses evidenced through writing and discussion. Extensive emphasis is devoted to the on-going study of the writing process, beginning with experience-based writing and moving into formal compositions that include content reports and research papers. Literature involves students in a reflective examination of such genres as the short story, poetry, essay, drama, autobiography, biography, and novel.

Students enrolled in English II are required to take the English II End-of-Course test, which counts as the designated percent of the semester grade in the semester in which the test is administered.

## English III <br> Grade 11 (required) <br> One credit/One year <br> Prerequisite(s): English II (Grade 10)

English III is designed to help students continue to develop knowledge and skills in reading, writing, speaking, listening, viewing and representing. The course focuses on strengthening and refining vocabulary, grammar and composition skills, with the greater part of grammar and vocabulary instruction based upon individual weaknesses evidenced through writing and discussion. A chronological approach is emphasized in the survey of American literature. Thematic studies can be utilized with various units for comparative purposes. The literature study includes theme, style, genre, literary analysis, research and techniques of writing clearly and concisely.

Students who are classified as juniors (11th grade) are required to take the Tennessee Comprehensive Assessment Program (TCAP) Writing Assessment. The TCAP writing Assessment is administered
during the month of February. The Writing Assessment is not course specific. Any student assigned to an 11th grade homeroom must take the Writing Assessment.

Students enrolled in English III are required to take the English III End-of-Course test, which counts as the designated percent of the semester grade in the semester in which the test is administered.

## Advanced Placement (AP) <br> English Language and Composition

Grade 11
One credit/One year
Prerequisite(s): Honors English II (Grade 10)
The AP English Language and Composition course engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer s purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing.

Students choosing AP Language and Composition should be interested in studying and writing various kinds of analytical or persuasive essays on literary topics.

The course allows students to write in a variety of forms (narrative, exploratory, expository, argumentative) and on a variety of subjects from personal experiences to public policies, from imaginative literature to popular culture. But the overarching purpose in most first-year writing courses is to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives. Therefore, most composition courses emphasize the expository, analytical, and argumentative writing that forms the basis of academic and professional communication as well as the personal and reflective writing that fosters the development of writing facility in any context. The AP English Language and Composition course follows this emphasis. As in the college course, its purpose is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. This course may be taken in lieu of English III for graduation.

Note: All students enrolled in an AP course are expected to take the course's AP exam.

## English IV

Grade 12 (required)
One credit/One year
Prerequisite(s): English III (Grade 11)
English IV is designed to prepare students to complete their formal secondary education with the skills needed to communicate effectively with others in the workplace or to gain admission to and succeed in college or professional school. Writing experiences include formal, informal, creative, and technical/functional compositions. An additional aim is to cultivate and nurture an appreciation of literature. In English IV the focus is on British
literature, with an emphasis on examining literary works within their historical and cultural contexts.

## Advanced Placement (AP) <br> English Literature and Composition <br> Grade 12 <br> One credit/One year <br> Prerequisite(s): AP English Language and Composition or Honors English III (Grade 11)

The AP English Literature and Composition course engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected text, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work s structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. Writing assignments focus on the critical analysis of literature and include expository, analytical and argumentative essays. Students choosing AP Literature and Composition should be interested in studying literature of various periods and genres and using this wide reading knowledge in discussions of literary topics.

Note: All students enrolled in an AP course are expected to take the course's AP exam. This course may be taken in lieu of English IV for graduation.

## African American Literature

Grades 11-12 (Elective)
One-half credit/One semester
Prerequisite(s): English I (Grade 9), English II (Grade 10)
African-American Literature allows students to earn one-half credit toward a major in English. African-American Literature is a chronological study of literature written by African-Americans from the mid-1800s to the present with an emphasis upon theme, genre, comparisons to writings by other ethnic groups and the social and cultural history of the works studied. The minimum requirements of the course are (1) a demonstrated comprehensive knowledge of the lives and literary contributions of selected African-American authors; (2) a well-documented research paper that uses at least one booklength selection as a resource; (3) contributions to class discussion; and (4) independent reading.

## Journalism

Grades 10-12 (Elective)
One-half credit/One semester
Prerequisite(s): English I (Grade 9)
This course is designed to introduce students to the field of journalism and the organization of publications (i.e., newspapers, yearbooks, and literary magazines). Types of writing news stories, editorials and feature writing are covered, as well as production considerations, photography, and the business aspects of publications.

## Speech

Grades 9-12 (Elective)
One-half credit/One semester
Prerequisite(s): None
Students are introduced to the techniques of oral communication through the use of research, organization, and creative thinking skills. Students will be required to make oral classroom presentations. This course is not approved as a Fine Arts course for college entrance requirements.

## Creative Writing

Grades 9-12 (Elective)
One-half credit/One semester
Prerequisite(s): None
This course will offer students the opportunity to exercise their imaginative and creative abilities as they explore diverse modes and genres of writing, both as writers and as critical evaluators of writing. A wide range of writing opportunities in description, exposition, persuasion, comparison/contrast and narration will be presented, thus giving students the tools necessary to write with uniqueness, coherence, clarity, and simplicity.

## Forensics

Grades 10-12 (Elective)
One credit/One year
Prerequisite(s): English I (Grade 9)
Forensics includes the study of current events and trends in literature, language, and public speaking. Students are expected to participate in co-curricular, performance-based activities available outside the classroom.

## Mass Media

Grades 10-12 (Elective)
One-half credit/One semester
Prerequisite(s): English I (Grade 9)
This course is designed to give students the opportunity to learn the theory of mass communications, to develop evaluative abilities, and to experiment with radio, television and film production.

## Advancement Via Individual Determination AVID

Grades 9-12 (Elective)
One-half credit/One semester
Prerequisite(s): None
This course is an elective course designed to prepare students for entrance into four-year colleges. Emphasis is placed on analytical writing, preparation for college entrance and placement exams, college study skills, and test taking, note taking, and research.

## Academic Counseling

Grade 9 (Elective)
One credit/One year
Prerequisite(s): None
This course will emphasize career choices, study skills, and tutoring. Academic Counseling is designed to be a first step in guiding students into choosing a career to prepare for and to engage
them in an advisor/advisee role equivalent to a college level environment.

## Dual Enrollment (EC) English Composition I

Grades (s) 11 and 12
Three semester hours College credit/High school credit Prerequisite(s): ACT English sub-score of 18 or above, or SAT verbal score of 450 or above.

Dual Enrollment (EC) English Composition I is a one semester college-level course that offers students practice in expository writing with emphasis on content, organization, and style (levels of usage and sentence structure) for different purposes and audiences. English Composition I and English Composition II may be taken to satisfy English IV for graduation requirement or as English elective(s).

## Dual Enrollment (EC) English Composition II

Grade(s) 11 and 12
Three semester hours College credit/High school credit
Prerequisite(s): English Composition I with a minimum grade of "C"
Dual Enrollment (EC) English Composition II is a one semester college-level course that provides students with practice in expository writing that synthesizes ideas from various readings, includes library work and production of documented papers.

## ENGLISH AS A SECOND LANGUAGE (ESL)

The English As A Second Language (ESL) Program is a transitional program designed to assist students who are classified as English Language Learners (ELL). ELL students have been tested with the State mandated English language proficiency test and have scored less than English proficient on the speaking, listening, reading or writing subtests. The courses offered through this program address the goals, standards and objectives of the Tennessee ESL Curriculum K-12. The foundation of these courses includes three goals for ELL students: 1) to use English to communicate in social settings, 2) to use English to achieve academically in all content areas, and 3) to use English in socially and culturally appropriate ways in multicultural and diverse settings. The standards of the ESL Curriculum are linked directly to the English/Language Arts curriculum standards.

Up to two ESL English credits (ESL I, ESL II, ESL III, ESL IV or ESL
V) may be used to satisfy English language requirements for graduation. Additional ESL courses may be taken for elective credit. ELL students must earn two units of regular English to complete graduation requirements. The student may be initially placed at any level, but the regular English classes must follow in sequence. The regular English placement should be determined by the needs and goals of each individual student.
ESL transitional courses are available as companion courses for English I, II, III, and IV. The ESL transitional courses are designed to support English Language Learner as he or she transitions from ESL to regular English classes. If ESL support is needed the ELL student should enroll in the ESL transitional class and the regular English class during the same semester or school year.

ELL students must take End-of-Course examinations when enrolled in English I, English II, and English III. The results of these examinations will be factored into the student's grade at a
percentage determined by the State Board of Education. The ESL transitional courses provide extra support and focus for the successful completion of EOC.

## ESL I (Beginning)

## Grades 9-12

One credit/One year
Prerequisite(s): None
This course is designed for students at the beginner proficiency level who have virtually no functional ability in listening, speaking, reading, and writing English. In this course ELL students will develop the necessary listening, speaking, reading, and writing skills for communication, word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print in order to be successful in the mainstream classroom. These are initial literacy skills.

## ESL II (High Beginning)

Grades 9-12
One credit/One year
Prerequisite(s): Performance Indicators for ESL I (Beginning)
This course is designed for students at the high beginner proficiency level who are beginning to understand the English language and use it in a limited capacity. Typically, they memorize words and phrases and can comprehend and utilize language that they have been taught. The curriculum focuses on applying literacy skills to the development of new knowledge. In this course ELL students will develop the necessary listening, speaking, reading, and writing skills for communication, word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print in order to be successful in the mainstream classroom.

## ESL III (Intermediate)

Grades 9-12
One credit/One year
Prerequisite(s): Performance Indicators for ESL I \& II (Beginning and High Beginning)

This course is designed for students at intermediate proficiency level who are able to understand most oral language pertaining to familiar topics but have difficulty comprehending and using academic vocabulary. Their speech and writing are basic and contain frequent errors. Grade level academic content skills are still in development. The curricular focus is on advancing applications of literacy skills for the development of new knowledge. In this course ELL students will develop the necessary listening, speaking, reading, and writing skills for communication, word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print in order to be successful in the mainstream classroom.

## ESL IV (High Intermediate)

Grades 9-12
One credit/One year
Prerequisite(s): Performance Indicators for ESL III (Intermediate)
This course is designed for students at high intermediate proficiency who are able to function well in most everyday situations but still require academic language support. They may have difficulty understanding text beyond the literal level. They often make errors in
structure and idiomatic language. The curricular focus is on more advanced applications of literacy skills. In this course ELL students will develop the necessary listening, speaking, reading, and writing skills for communication, word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print in order to be successful in the mainstream classroom.

## ESL V (Advanced)

## Grades 9-12

One credit/One year
Prerequisite(s): Performance Indicators for ESL IV (High Intermediate)

This course is designed for students at advanced level of proficiency who can handle most personal, social and academic language. Idioms and structure are frequently still problematic. Complicated literacy and academic texts may require use of a dictionary when the language and context are unfamiliar. The ESL curricular focus is based on literacy skills necessary for success in a grade level classroom. In this course ELL students will develop the necessary listening, speaking, reading, and writing skills for communication, word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print in order to be successful in the mainstream classroom.

## ESL VI (Transitional)

## Grades 9-12

One credit/One year
Prerequisite(s): Performance Indicators for ESL IV or V
This course is designed to provide English language instruction for ELL students who are able to function on an advanced level in both oral and written English but are still experiencing difficulties in achieving necessary English requirements for graduation. Students in this course will develop skills in listening, speaking, reading, and writing that will enable them to be successful in the mainstream classroom. Normally this course is taken in conjunction with a regular English class.
ESL VI (Transitional) may not be applied toward English requirements for graduation but may be used toward elective credits.

## ESL Civics

Grades 9-12
One credit/One year
Prerequisite(s): ELL and Beginning or Intermediate Level proficiency in English

ESL teaching techniques are utilized to enable ELL students to comprehend citizenship and history of the United States. Major social studies standards addressed in this course are to demonstrate an understanding of governmental structures and functions, to identify current problems, and to pose possible solutions. Students also will examine the role of being an effective citizen in today's society. Major ESL standards are to use English to obtain, to process, and to communicate subject matter and information in spoken and written form.

ESL Civics may not be applied toward the social studies requirements for graduation but may be used as an elective credit

## MATHEMATICS

The content of each of the district's mathematics courses is outlined in the Shelby County Schools Mathematics Instructional Guides. These guides provide for district-wide consistency in the mathematics content that is taught and in the instructional sequencing and pacing of each course. Implementation of these guides results in a comprehensive SCS mathematics program that is designed to prepare all students for post secondary success. Based upon the Tennessee Mathematics Curriculum Framework, the SCS mathematics curriculum includes the new Mathematics Standards for Tennessee which are aligned with the National Council of Teachers of Mathematics Curriculum Focal Points for Pre-kindergarten through Grade 8 Mathematics and the Principals and Standards for School Mathematics, American Diploma Project Benchmarks, National Association for the Educational Progress standards, and ACT Standards.

The content and instruction in all SCS secondary mathematics courses must engage students in completing real-world problemsolving tasks. Mathematics instruction must also include active investigations that will enable students to gain both the conceptual understanding and the proficiency with basic skills that are essential for meeting the demands of a modern society. Research shows that American students have little mathematics application skills when compared to students in other countries. Therefore, the new Mathematics Standards for Tennessee were developed.

To fulfill the goal of higher academic standards and rigor in mathematics, effective with the ninth grade class entering high school during school year 2009-2010, all students will pursue a focused program of study that includes four (4) credits in mathematics (of the 22 specified credits required for a high school diploma. The four mathematics credits are to include Algebra I and II, Geometry or its equivalent, and another mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year. Also, a Bridge Mathematics course is designed for students who have not scored a 19 or higher on the ACT by the beginning of the senior year.

Students with qualifying disabilities in math, as documented in the individualized education program, shall be required to complete a minimal sequence of Algebra I and Geometry (or its equivalent). The required number of credits in mathematics may be earned with modifications such as, but not limited to, increased time, appropriate methodologies, and accommodations as determined by the IEP team

End-of-Course examinations will be given in Algebra I and Algebra II. End-of-Course examinations count $25 \%$ of the student's grade in the semester taken for that school year.

Students will not be required to pass any one examination, but instead students must achieve a passing score for the yearly grade in accordance with the State Board of Education's uniform grading policy.

Students with qualifying disabilities in math, as documented in the individualized education program, shall be required to complete a minimal sequence of Algebra I and Geometry (or its equivalent). The required number of credits in mathematics may be earned with modifications such as, but not limited to, increased time, appropriate
methodologies, and accommodations as determined by the IEP team. Students with qualifying disabilities in math may complete the four units of math required for HS Graduation by completing these math courses: Algebra IA, Algebra IB, Unified Geometry IA and Unified Geometry IB.

Note that students who meet TCAP Mathematics Achievement Test, Pre-algebra 7, and principal recommendation criteria may take Algebra I as eighth (8th) graders and, if successful, earn the Algebra I credit required for high school graduation. Students must still be enrolled in a mathematics course each year in high school.
Therefore, eighth grade students, if successful, will have five (5) credits in mathematics upon graduation after 4years in high school.

All Shelby County Schools seventh (7th) and eighth (8th) grade mathematics students, other than 8th grade Algebra I students, must be enrolled in Pre-algebra courses.

## Algebra I+ (S1)

Algebra l+ (S2)
Grades 9-12
One elective credit
One Algebra I credit upon the successful completion of both semesters within the same school year.
Prerequisite(s): Pre-Algebra 8
Algebra I + is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Algebra I curriculum. Algebra I + also provides just-in time intervention which results in an additional elective credit.

The content of Algebra I + supplements the district' s one-year Algebra I course which students must take concurrently or during the same academic year to receive the Algebra I credit.

## See Algebra I course description

Students who successfully complete Algebra + (semesters 1and 2) will receive an elective credit. Upon completion of Algebra I, students receive a mathematics credits. Students must enroll in and successfully complete the algebra course during the same academic year to earn their required mathematic credit.

## Algebra I-Grade 8

Algebra I
Grade(s) 8-12
one credit with EOC examination/one year
Prerequisite(s): Grade 8: See criteria for Algebra I - Grade 8; Grades 9-12: Pre-algebra 8

Algebra I is the foundation course for all higher mathematics courses and is valuable and necessary for all students. A credit in Algebra I is required for obtaining a Regular or Honors high school diploma. Most college and university admission requirements include Algebra I.
Algebra I students will be involved in solving problems that arise from real-world settings and contexts and using the language of algebra to find and interpret solutions. Development of conceptual understanding of proportionality, multiple representations, variables, equality and inequality, functions and dependency, and data analysis are all included in the instruction of Algebra I. Students enrolled
in Algebra I are required to take the Algebra I End-of-Course exam, which counts as $25 \%$ of the semester grade in the semester in which the test is administered. For deepening understanding and mathematical thinking and for giving students greater opportunities for success on the Algebra I End-of-Course exam, graphing calculators are essential to the teaching and learning of Algebra I.

## Algebra IA

one mathematics credit one year(or its equivalent)
Prerequisite(s): Pre-Algebra 8
This course is taught by a regular education teacher and special education co-teacher.

Grades 9-12
Students with qualifying disabilities may use a modified credit option as documented in the IEP. This option will enable a SWD the opportunity to earn a high school diploma, gain employment and/or complete post-secondary admission requirements to a community college, technical or vocational program after high school. This option will not allow the student to gain admission requirements to a four year university program.

Algebra IA is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Algebra I curriculum. Algebra IA also provides just-in time intervention which results in an additional mathematics credit. The Algebra IA course is open only to students whose IEP allows for such enrollment. Students with qualifying disabilities as documented in the IEP shall be required to achieve at least Algebra I and Geometry (or equivalent). The required number of credits in mathematics shall be achieved through increased instructional time, appropriate methodologies, accommodations and other differentiated instruction as determined by the IEP team. Students with disabilities may earn the four math credits required for graduation with a regular diploma using this option. Students using this graduation option may take Algebra IA in the 9th grade, Algebra IB, in the 10th grade, Geometry $A$ in 11 th grade and Geometry $B$ in the 12 th grade.

The content of Algebra IA corresponds to the first half of the content of the district's one-year Algebra I course. Use of the graphing calculator and other mathematical manipulatives and tools is required. Students with qualifying disabilities as documented in the IEP who successfully complete Algebra IA will receive a mathematics credit only.

Students who successfully complete Algebra IA will receive amath credit.

## Algebra IB

One Algebra I credit one year (or its equivalent)
Prerequisite(s): Algebra IA
This course is taught by a regular education teacher and special education co-teacher.

## Grades 9-12

Students with qualifying disabilities may use a modified credit option as documented in the IEP. This option will enable a SWD the opportunity to earn a high school diploma, gain employment and/or complete post-secondary admission requirements to a community
college, technical or vocational program after high school. This option will not allow the student to gain admission requirements to a four year university program.

Algebra IB is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Algebra I curriculum. Algebra IB also provides just-in-time intervention which results in an additional mathematics credit. The Algebra IB course is open only to students whose IEP allows for such enrollment. Students with qualifying disabilities as documented in the IEP shall be required to achieve at least Algebra I and Geometry (or equivalent). The required number of credits in mathematics shall be achieved through increased instructional time, appropriate methodologies, accommodations and other differentiated instruction as determined by the IEP team. Students with disabilities may earn the four math credits required for graduation with a regular diploma using this option. Students using this graduation option must take Algebra IA in the 9th grade, Algebra IB, in the 10thgrade, Geometry A in 11th grade and Geometry $B$ in the 12thgrade. These students may earn mathematics credit for Algebra IA and for Algebra IB as well as for Geometry A and Geometry B.

The content of Algebra IB corresponds to the second half of the content of the district's one-year Algebra I course. For deepening understanding and mathematical thinking and forgiving students an opportunity for success on the End-of-Course examination, the use of graphing calculator and other mathematical manipulatives and tools is required. Students with qualifying disabilities as documented in the IEP who successfully complete Algebra IB will receive Algebra I credit and take the Algebra I End-of-Course examination, which counts as $25 \%$ of the semester grade in the semester in which the test is administered.

Students who successfully complete Algebra I B will receive an Algebra I credit.

## Contextual Algebra I (HQ)

Grade(s): 9-12 one credit
one year
Contextual Algebra I is the foundation course for all higher mathematics courses and is valuable and necessary for all students. Contextual Algebra I students will be involved in solving problems that arise from real-world settings and contexts and using the language of algebra to find and interpret solutions.

Development of conceptual understanding of proportionality, multiple representations, variables, equality and inequality, functions and dependency, and data analysis are all included in the instruction of Contextual Algebra I. For deepening understanding and mathematical thinking and for giving students greater opportunities for success on the Gateway Mathematics - Algebra I Exam, graphing calculators are essential to the teaching and learning of Contextual Algebra I.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

Geometry+ (S1)

## Geometry+ (S2)

Grades 9-12
One elective credit /One Geometry credit upon the successful completion of both semesters within the same school year. Prerequisite(s): Algebra I

Geometry + is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Geometry curriculum. Geometry + also provides just-in-time intervention which results in an additional elective credit.

The content of Geometry + supplements the district's one-year Geometry course which students must take concurrently or during the same academic year to receive the Geometry credit.
See Geometry course description.
Students who successfully complete Geometry + (S1) will receive an elective credit. Students must enroll in and successfully complete the Geometry $1+(\mathrm{S} 2)$ course during the same academic year to earn their required mathematics credits.

## Geometry

Grade(s) 9-12
one credit/one year
Prerequisite(s): Algebra I
Geometry is the branch of mathematics that deals with properties, measurement, and relationships of points, lines, and plane and solid figures. Emphasis is placed on logical reasoning and the integration of algebraic and geometric concepts. Instruction in this course includes the study and use of different representational systems, including coordinate geometry and graph theory; it also focuses on the usefulness of transformations and symmetry in analyzing mathematical situations.

Graphing calculators or computers with Cabri software should be used in this course to give students dynamic visualizationsof geometric relationships.

## Geometry A

Grades 9-12
one mathematics credit one year (or its equivalent)
Prerequisite(s): Algebra IA and Algebra IB or Algebra I
This course is taught by a regular education teacher and special education co-teacher.

Students with qualifying disabilities may use a modified credit option as documented in the IEP

This option will enable a SWD the opportunity to earn a high school diploma, gain employment and/or complete post-secondary admission requirements to a community college, technical or vocational program after high school. This option will not allow the student to gain admission requirements to a four year university program.

Geometry A is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Geometry curriculum. Geometry A also provides just-in-time
intervention which results in an additional mathematics credit. The Geometry A course is open only to students whose IEP allows for such enrollment. Students with qualifying disabilities as documented in the IEP shall be required to achieve at least Algebra I and Geometry (or equivalent).

The required number of credits in mathematics shall be achieved through increased instructional time, appropriate methodologies, accommodations and other differentiated instruction as determined by the IEP team. Students with disabilities may earn the four math credits required for graduation with a regular diploma using this option. Students using this graduation option may take Algebra IA in the 9th grade, Algebra IB, in the 10th grade, Geometry A in 11th grade and Geometry $B$ in the 12th grade.

These students may earn mathematics credit for Algebra IA and for Algebra IB as well as for Geometry A and Geometry B.

The content of Geometry A corresponds to the first half of the content of the district's one-year Geometry course. Graphing calculators and Cabri software should be used in this course to give students dynamic visualizations of geometric relationships.

Students with qualifying disabilities as documented in the IEP who successfully complete Geometry A will receive a mathematics credit. They may enroll in and successfully complete the Geometry B as documented by their IEP and earn an additional mathematics credit.

## Geometry B

Grades 11-12
One geometry I credit one year (or its equivalent)
Prerequisite(s): Geometry A
This course is taught by a regular education teacher and special education co-teacher.

Students with qualifying disabilities may use a modified credit option as documented in the IEP. This option will enable a SWD the opportunity to earn a high school diploma, gain employment and/or complete post-secondary
admission requirements to a community college, technical or vocational program after high school. This option will not allow the student to gain admission requirements to a four year university program.

Geometry $B$ is a course designed for those students who need extended time to fulfill the rigors of a challenging, standardsbased Geometry curriculum. Geometry B also provides just-in-time intervention which results in an additional mathematics credit. The Geometry B course is open only to students whose IEP allows for such enrollment. Students with qualifying disabilities as documented in the IEP shall be required to achieve at least Algebra I and Geometry (or equivalent). The required number of credits in mathematics shall be achieved through increased instructional time, appropriate methodologies, accommodations and other differentiated instruction as determined by the IEP team. Students with disabilities may earn the four math credits required for graduation with a regular diploma using this option. Students using this graduation option may
take Algebra IA in the 9th grade, Algebra IB, in the 10th grade, Geometry $A$ in 11 th grade and Geometry $B$ in the 12th grade.

These students may earn mathematics credit for Algebra IA and for Algebra IB as well as for Geometry A and Geometry B.

The content of Geometry B corresponds to the second half of the content of the district' s one-year Geometry course. Graphing calculators and Cabri software should be used in this course to give students dynamic visualizations of geometric relationships.

## Contextual Geometry (HQ)

Grade(s): 9-12
one credit/one year
The Contextual Geometry course incorporates the same core geometric concepts required in a standard geometry course but includes additional topics that focus on career and technical applications. These concepts will be taught using practical applications in a contextual style of teaching, including labs and projects. The structure of the course will include teaching groups of skills and concepts followed by their incorporation in a real world application and setting. The concepts and topics emphasized in the course include measurement, geometric patterns, coordinate geometry, two- and three-dimensional figures, transformational geometry, congruence, similarity, inductive and deductive reasoning, logic and proof.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Algebra II+ (S1) <br> Algebra IIt (S2)

Grade(s) 9-12
One elective credit /One Algebra II credit upon the successful completion of both semesters within the same school year. Prerequisite(s): Algebra I

Algebra II + is a course designed for those students who need extended time to fulfill the rigors of a challenging, standards-based Algebra II curriculum. Algebra II + also provides just-in-time intervention which results in an additional elective credit. The content of Algebra II + supplements the district' s one year Algebra II course which students must take concurrently or during the same academic year to receive the Algebra II credit.

See Algebra II course description Students who successfully complete Algebra II + (S1) will receive an elective credit. Students must enroll in and successfully complete the Algebra II+ (S2)course during the same academic year to earn their required mathematics credit.

## Algebra II

Grade(s) 9-12
one credit/one year
Prerequisite(s): Algebra I
Algebra II provides students with a deep and extended study of the topics and concepts developed in Algebra I. Emphasis placed on quadratic functions, matrices, exponential and logarithmic functions,
and the structure of number systems data analysis, and probability. Instruction in this course centers on the use of real-world problems to demonstrate how other disciplines use algebra to model real phenomena. Extensive use of graphing calculators and computer technology in Algebra II means that there will be decreased emphasis on paper-and-pencil graphing of equations by point plotting, on logarithmic calculations using tables and interpolation, on solving systems of equations by using determinants, and on conic sections.

## Contextual Algebra II (HQ)

Grade(s): 9-12
one credit/one year
Prerequisite(s): Contextual Algebra I
Contextual Algebra II provides students with a deep and extended study of the topics and concepts developed in Contextual Algebra I. Emphasis is placed on quadratic functions, matrices, exponential and logarithmic functions, and the structure of number systems, data analysis, and probability. Instruction in this course centers on the use of real-world problems to demonstrate how other disciplines use algebra to model real phenomena. Extensive use of graphing calculators and computer technology in Contextual Algebra II means that there will be decreased emphasis on paper-and--pencil graphing of equations by point plotting, on logarithmic calculations using tables and interpolation, on solving systems of equations by using determinants, and on conic sections.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Pre-Calculus

Grades 11-12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, and Geometry
Instruction in Pre-Calculus emphasizes the connections between a problem situation, its model as a function in symbolic form, and the graph of that function. Major topics of study in Pre-Calculus are function analysis, exponents and logarithms, trigonometry and its applications, sequences and series, and conic sections. Technology use is a priority so that manual graphing of functions and rote use of formulas receive decreased attention. Trigonometry content is an integral part of this course.

Pre-Calculus should provide engaging and challenging opportunities for students to work together to investigate and model real-world problems and to become prepared for calculus and other collegelevel courses.

## Calculus

Grade 12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, Geometry, Advanced Algebra/Trigonometry and/or Pre-Calculus

Calculus is a course designed to prepare students for success in college calculus courses. A study of functions and of the development of calculus concepts, methods, and applications is included in this course. Graphing calculator technology is used
regularly by students and teachers to reinforce the relationships among different representations of functions, to confirm written work, to implement explorations, and to assist in interpreting results. Content covered in calculus includes functions, graphs, and limits; asymptotic and unbounded behavior; continuity; derivatives; integrals; and anti-differentiation.

## Advanced Placement (AP) Calculus AB

## Grade 12

One credit/One year
Prerequisite(s): Algebra I, Algebra II, Geometry, Honors Advanced Algebra/Trigonometry and/or Honors Pre-Calculus

AP Calculus AB is a full year of academic work that is comparable to college and university calculus courses.

Before enrolling in AP Calculus AB, students should be familiar with the properties, language, and graphs of functions, particularly those that are linear, polynomial, rational, exponential, logarithmic, and trigonometric. The scope of AP Calculus AB includes the study of derivatives, integrals, differential equations, limits, approximations, slope fields, applications, and modeling. These topics are developed using the functions described in the Prerequisite(s). Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Calculus BC

Grade 12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, Geometry, Honors Advanced Algebra/Trigonometry and/or Honors Pre-Calculus

AP Calculus BC is a full year of academic work that is comparable to college and university calculus courses. The content of AP Calculus $B C$ is designed to qualify the successful student with placement and credit one college course beyond that granted for AP Calculus AB.

AP Calculus $B C$ is primarily concerned with developing an understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multirepresentational approach with concepts, results, and problems being expressed in multiple ways; geometrically, numerically, analytically, and verbally. Graphing calculators are required for parts of the AP Examination and, consequently, are used frequently by students and teachers. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Introduction to College Mathematics

Grade 12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, Geometry, Advanced Algebra/Trigonometry and/or Pre-Calculus

Secondary mathematics students in the five-year mathematics program who do not choose to enroll in a calculus class may take Introduction to College Mathematics. The major emphasis of the Introduction to College Mathematics is on extending understanding of the concepts of algebra, geometry, and trigonometry. Course content also includes statistics, data analysis, and an introduction to calculus. Students will work with graphing calculator technology as they
strengthen their readiness for the rigors of college mathematics courses.

## Statistics

Grade 11-12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, and Geometry
Statistics provides fourth-year mathematics students, who do not enroll in Pre-calculus, with an advanced mathematics course that focuses on the study of representing, describing, and analyzing data. Statistical experiments to develop an understanding of bias in sampling, the Law of Large Numbers, the probability of independent events, and conditional probability are included in this course. Students will design and conduct their own statistical experiments and interpret and communicate the outcomes. Instruction in Statistics consolidates and extends methods of exploratory data analysis developed in prior mathematics courses.

## Advanced Placement (AP) Statistics

Grade 11-12
One credit/One year
Prerequisite(s): Algebra I, Honors Algebra II, and Geometry
Advanced Placement Statistics is an introductory, non-calculus based college course in statistics. The purpose of the AP Statistics course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1. Exploring Data: Observing patterns and departures from patterns, 2. Planning a Study: Deciding what and how to measure, 3. Anticipating Patterns: Producing models using probability theory and simulation, and 4. Statistical Interference: Confirming models. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Algebra and Trigonometry

Grade 11-12
One credit/One year
Prerequisite(s): Algebra I, Algebra II, and Geometry
Advanced Algebra and Trigonometry is designed for those students who have successfully completed three years of upper level mathematics but do not seek to pursue secondary Pre-Calculus and Calculus credit. Advanced Algebra and Trigonometry provides a greater number of students with the opportunity to study higher levels of mathematics for four years and to become better prepared for college entrance examinations (ACT and SAT) or the modern workplace. Instruction emphasizes the use of technology as a tool for completing collaborative investigations of real-world problems and solutions. Major content strands include functions, matrices, and trigonometric applications.

## Technical Geometry

One credit/One year
Technical Geometry incorporates the same core geometric concepts required in a standard geometry course but includes additional topics that focus on career and technical applications. These concepts will be taught using practical applications in a contextual style of teaching, including labs and projects. The structure of the course will include teaching groups of skills and concepts followed by their
incorporation in a real world application and setting. The concepts and topics emphasized in the course include measurement, geometric patterns, coordinate geometry, two- and three-dimensional figures, transformational geometry, congruence, similarity, inductive and deductive reasoning, logic and proof.

## Bridge Mathematics

## Grade 12

One credit/One year
Prerequisite(s): Algebra I, Algebra II, and Geometry
A Bridge Mathematics course is designed for students who have not scored a 19 or higher on the ACT by the beginning of the senior year. (NCAA rules apply for this course) Bridge Math is organized into groups of mathematical skills required in order to prepare a student for college level mathematics. These skills should be developed in an environment that goes beyond skill and drill techniques and the course should involve application of previous skills learned and the integration of technology and problem solving.

## SCIENCE

Physical Science, Biology, Chemistry, Physics, Environmental Science, Anatomy and Physiology, and Advanced Placement courses are the core science courses available to students in grades $9-12$. Physical Science may also be taken at the eighth grade level for one of the units of credit required for graduation, providing that students meet the criteria for such credit. Enrollment in Physical Science at the eighth grade allows students to take five years of science by the time they graduate. Three (3) science credits are required for high school graduation.

Physical Science, Biology, Chemistry and/or Physics is the recommended sequence of science courses. Students who enter 9th grade in the fall of 2009-2010 and thereafter will be required to take the Tennessee End-of-Course Biology I Test as part of the requirements to earn a Regular or Honors high school diploma. Also as a part of the new High School Transition Policy, students enrolled in Chemistry in the fall of 2013-2014 and thereafter will be required to take the Tennessee End-of-Course for Chemistry I as part of the requirement to earn a Regular or Honors High School Diploma.

Advanced Placement Biology, Chemistry, or Physics is generally taken in eleventh twelfth grade. Three (3) credits are required to fulfill entrance requirements for Tennessee Board of Regents (TBR) universities and the University of Tennessee (UT) system. One of these three courses must be Biology, Chemistry or Physics. The SCS recommended sequence of courses satisfy TBR and UT requirements.

Students entering the 9th grade in the fall of 2009-2010 and thereafter must take all three End-of-Course Tests - Algebra I, Language Arts - English II, Science - Biology I as part of the requirements to receive a Regular or Honors diploma. Each End-ofCourse Test will be administered to students when they are nearing completion of the stated course in which they are enrolled. All students enrolled in Algebra I, English II, and Biology I will be required to take the End-of-Course Test regardless of the date that they entered high school. End-of-Course examinations count 20\% of the student's grade in the semester taken for school years 20092010 and 2010-2011 and count $25 \%$ of the student's grade each year thereafter.

## Physical Science

Grades 8-12
One credit/One year
Prerequisite(s): None

## Criteria for Grade 8:

- A "B" average (85-92) in 7th grade science
- A score of ADVANCED on the most recent science subtest(s) of TCAP
- Teacher recommendation

Physical Science is a course during which students study the classification, structure, and behavior of matter and relationships of matter and energy. Topics studied and investigated through laboratory experiences include:

- Force and Motion,
- Structure and Properties of Matter,
- Interactions of Matter, and
- Energy

Students will explore the topics listed above through a balanced exposure to inquiry, hands-on laboratory investigations, individual studies and group activities. The students' experiences in Physical Science will enable them to understand the role of science and technology in their lives. Practical applications and career opportunities are emphasized.

If Physical Science is taken at the eighth grade level, it may be applicable as one of the units of credit required for graduation, providing students meet the criteria for such credit.

## Biology IA

## Biology IB

Grade(s) 9-12
One credit/One year
Prerequisite(s): Physical Science
This course is taught by a regular education teacher and SPED coteacher. Students with disabilities who opt for the Modified credit option, may meet their (3) required science credits by completing Biology IA and Biology IB and one other lab science. (Example: Physical Science). Biology IA is a course designed or those students who need extended time to fulfill the rigors of a challenging, standards-based Biology curriculum. Biology IA also provides just-intime intervention which results in an additional elective credit.

The content of Biology IB corresponds to the second half of the content of the district's one-year Biology I and Biology I+ Sem 2.

## Biology l+(S1) <br> Biology I+(S2) <br> Grade(s) 9-12

Prerequisite(s): Physical Science
One elective credit and One Biology I credit upon the successful completion of both semesters within the same school year

Students with disabilities who opt for the Modified credit option, may meet their (3) required science credits by completing Biology + (S1) and Biology + (S2) and one other lab science. (Example: Physical Science). Biology $I+$ is a course designed or those students who need extended time to fulfill the rigors of a challenging, standards-
based Biology curriculum. Biology l+ (S1) also provides just-in-time intervention which results in an additional elective credit.

The content of Biology I + supplements the district's one-year Biology I course which students must take concurrently or during the same academic year to receive the Biology I credit.

## Biology I

Grade 9-12
One credit/One year
Prerequisite(s): None
Biology I is a course during which students continue their study of living things. Through a balance of classroom and laboratory work, students will explore the following:

- Basic life processes at the molecular, cellular, systemic, organismal, and ecological levels of organization within the biosphere,
- Interdependence and interactions within the environment to include relationships, behavior, and population dynamics,
- Cultural and historical scientific contributions of men and women,
- Evidence that supports biological evolution, and
- Current and future technologies.

During their coursework students will experience the content of Biology I through inquiry. Using available technology, students will investigate the world around them. Biology I will provide the student with knowledge, prerequisite skills, and habits of mind needed for daily living and ethical decision making on issues including biotechnology and the environment, as well as provide a background for advanced biological studies and personal career choices. Students enrolled in Biology I are required to take the Biology I End-of-Course test, which counts as $20 \%$ of the semester grade in the semester in which the test is administered. Passing the Biology I End-of-Course Test is one of the requirements to earn a Regular or Honors diploma.

## Chemistry I

Grade 10-12
One credit/One year
Prerequisite(s): Algebra I
Chemistry I is a course during which students explore the properties of substances and the changes that such substances undergo. Through a balance of classroom and laboratory work, students will investigate the following:

- Atomic Structure,
- Matter and Energy,
- Interactions of Matter, and
- Properties of Solutions - including Acids and Bases.

Students will explore chemistry through inquiry, hands-on laboratory investigations, individual studies and group activities. The students' experiences in chemistry will enable them to understand the role of chemistry in their lives by investigating substances that occur in nature, in living organisms and those that are created by humans. Their study will include both qualitative and quantitative descriptions of matter and the changes that matter undergoes. Students will practice the necessary precautions for performing safe inquiries and
activities and appreciate the risks and benefits of producing and using chemical substances. As part of the new High School Transition Policy, students enrolled in Chemistry in the fall of 20132014 and there after will be required to take the Tennessee End-ofCourse Chemistry I as part of the requirement to earn a Regular or Honors High School Diploma. The End-of-Course exam grade will count $20 \%$ of the second semester grade for the 2013-2014 and the 2014-2015 school years and $25 \%$ of the second semester grade in subsequent school years.

## Physics

Grade 11-12
One credit/One year
Prerequisite(s): Algebra II
Physics is a course during which students study matter and the relationship between energy and matter. Through a balance of classroom and laboratory work, students will investigate the following:

- Mechanics
- Electromagnetism, and
- Heat
- Nuclear Changes
- Sound and Light

During this course, students will experience Physics through a balance of classroom work and laboratory experiences including available technology. A goal of this course is that students will gain conceptual understanding of physical phenomena while using measurements and calculations to support concept development. This course provides a background for advanced Physics studies and personal career choices.

## Conceptual Physics

Grade 9-12
One credit/One year
Prerequisite(s): Algebra I
Conceptual Physics is an approach to physics that stimulates higherlevel cognitive skills and encourages seeing physics everywhere. It maximizes the use of personal experience in the everyday world and uses everyday language. Through a balance of classroom activities and laboratory experiences, students will explore the following:

- Mechanics
- Electricity and Magnetism
- Thermodynamics
- Nuclear Science
- Waves and Optics

The goal is to see physics as the rules of the physical world, with equations as guides to thinking that reveal the connections in nature. Clear explanations, analogies, qualitative questions and algebraic reasoning, and the use of available technology will lead to the comprehension of concepts before calculations. This course provides a science foundation for advanced physics studies and career choices.

## Advanced Placement (AP) Biology

Grade 11-12
One credit/One year
Prerequisite(s): Honors Biology I, Honors Chemistry I, and Honors Algebra II

Advanced Placement Biology provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. It is designed to be taken by students after the successful completion of a first course in high school biology and one in high school chemistry as well.
Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Chemistry

Grade 11-12
One credit/One year
Prerequisite(s): Honors Biology I, Honors Chemistry I, Algebra I, and Honors Algebra II

Advanced placement Chemistry provides students with the knowledge and skills included in an introductory college-level chemistry course. Advanced Placement Chemistry is designed to be taken after the successful completion of a first course in high school chemistry. The mathematics prerequisite for an AP Chemistry class is the successful completion of a second-year Algebra course. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Physics B

Grade 11-12
One credit/One year
Prerequisite(s): Physics, Algebra I, Algebra II and concurrent enrollment in or completion of Honors Pre-Calculus or Honors Advanced Algebra/Trig

Advanced Placement Physics B includes topics in both classical and modern physics. Knowledge of algebra and basic trigonometry is required for the course. The course provides instruction in Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Physics C: Mechanics Advanced Placement (AP) Physics C: Electricity \& Magnetism Grade 11-12

One credit/One year
Prerequisite(s): AP Physics B, Algebra I, Algebra II and concurrent enrollment in Honors or AP Calculus

Physics C: Mechanics provides instruction in each of the following six content areas: kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation.

Physics C: Electricity and Magnetism provides instruction in each of the following five content areas: electrostatics; conductors, capacitors and dielectrics; electric circuits; magnetic fields; and electromagnetism

Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Anatomy and Physiology

## Grade 11-12

One credit/One year
Prerequisite(s): Biology
Anatomy and Physiology is the study of the body's structure and respective functions at the molecular/biochemical, cellular, tissue, organ, systemic, and organism levels. Students explore the body through laboratory investigations, models, diagrams, and/or comparative studies of the anatomy of other organisms. The study of anatomy and physiology prepares students for a variety of pursuits such as health care, sports, and fitness careers, as well as for taking an active part in their own health and wellness. The student will study:

- Anatomical Orientation
- Protection, Support, and Movement
- Integration and Regulation
- Transportation
- Absorption and Excretion
- Reproduction, Growth, and Development


## Environmental Science

Grade 11-12
One credit/One year
Prerequisite(s): Biology
Environmental Science is a course that enables students to develop an understanding of the natural environment and the environmental problems the world faces. Students will investigate the following:

- Fundamental Ecological Principles
- Human Population Dynamics
- Natural Resources
- Energy Sources and Their Uses
- Human Interaction with the Environment
- Personal and Civic Responsibility

It is the expectation that students will explore the content of Environmental Science through inquiry. This science course will utilize group lab and field experiences to meet these expectations. Particular emphasis will be placed on local environments. Students will develop a basic understanding of ecology as a basis for making ethical decisions and career choices.

## Advanced Placement (AP) Environmental Science

## Grade 11-12

One credit/One year
Prerequisite(s): Honors Biology, Honors Chemistry, and Algebra I
The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or
preventing them. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Independent Science Research Seminar

Grade 11-12
One credit/One year
Prerequisite(s): None
This course allows the student, under the guidance of an experienced teacher, to pursue a topic of individual research. This course is designed to further the scientific interest and knowledge of the student. The student uses investigative skills and materials to conduct research on a particular topic of interest and present the findings in a scientific paper. It is recommended that this course be offered to high ability or to Advanced Placement students. Credit earned for this course cannot be used to satisfy graduation requirements.

## Astronomy I

Grade 10
One credit/One year
Prerequisite(s): Approval of Astronomy Instructor
This course is a natural science that is the study of celestial objects (such as moons, planets, stars, nebulae, and galaxies), the physics, chemistry, mathematics, and evolution of such objects, and phenomena that originate outside the atmosphere of Earth, including supernovae explosions, gamma ray bursts, and cosmic background radiation.

## Astronomy II

Grade 11
One credit/One year
Prerequisite(s): Astronomy I
In this course, student builds on knowledge learned in Astronomy I. Topics studied include examination of the properties of the planets, moon, sun, comets, meteors, stars, and galaxies. Students will examine life and death of stars, origin of the universe, history of astronomy, and instruments and techniques of observation.

## Geology

Grades 10-12
One credit/One year
Prerequisite(s): Physical Science
Geology is a course that investigates the physical nature of the earth: where it is found, what it is made of, its features and how they were formed, and the environmental impact of using its resources. Basic chemistry and physics are integrated throughout the course and related careers are introduced.

## Dual Enrollment (EC) Biology

Grade(s) 11-12
Three semester hours College credit/High school credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Biology is a one semester college-level course that covers unifying principles of biology with emphasis on cell structure, cell function, heredity, development and evolution.

## Dual Enrollment (DE) Biology Lab

Grade(s) 11-12
One Semester Hour University Credit / 0.5 High School Credit
Prerequisite(s): College's Admission Requirement
DE Biology Lab meets three laboratory hours per week and must be taken in conjunction with DE Biology. Students are introduced to investigative laboratories in introductory cell and molecular biology with emphasis on experimental theory and design, practical laboratory skills; interpretation of data; documentation and communication of laboratory work.

## Dual Enrollment (EC) Chemistry

## Grade(s) 11-12

Three Semester Hour College Credit /High School Credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Chemistry is a one semester college-level course that includes topics in the laws of chemistry; periodic table and chemical periodicity, stoichiometry, nomenclature, modern atomic theory and bonding; ionic and molecular compounds; molecular geometry; oxidation-reduction reactions; solutions and heterogeneous mixtures; gaseous state; states of matter and intermolecular forces; thermochemistry.

## Dual Enrollment (DE) Chemistry Lab

Grade(s) 11-12
One Semester Hour University Credit / 0.5 High School Credit
Prerequisite(s): College Admission Criteria
DE Chemistry Lab meets three laboratory hours per week and is designed to illustrate and explain the concepts covered in Dual Enrollment (EC) Chemistry. Lab class should be taken in conjunction with Dual Enrollment Chemistry.

## Dual Enrollment (EC) Physics

Grade(s) 11-12
Three Semester Hour University Credit/High School Credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Physics is a one semester college-level course that provides instructions in topics that include vectors with application to statics, kinematics and dynamics, Newton's laws and their application to motion and equilibrium, concepts and applications of energy and momentum conservation principles, harmonic motion, and thermodynamics.

## Dual Enrollment / Dual Credit (DE) Anatomy and Physiology

 Grade(s) 11-12Three semester hours College credit
Prerequisite: College's Admission Requirement
Dual Enrollment/Dual Credit Anatomy and Physiology is an introductory course designed to provide the basic foundation for successful comprehension of the human anatomy and physiology. Emphasis is placed upon the vocabulary, morphology, and functions of the systems of the human body.

## SOCIAL STUDIES

Social Studies courses in grades 9-12 provide a comprehensive program of knowledge and skills enabling students to understand how groups and institutions influence the lives of individuals and give society stability and order. The program incorporates reflective inquiry, problem-solving analysis, and decision-making skills enabling students to develop into humane, rational citizens. Courses utilize four process standards: Communication, data analysis, historical awareness, and acquiring information and the six content standards: Culture, Economics, Geography, Government and Civics, History, and Individual/Group Interactions.

A total of three ( $31 / 2$ ) units of credits in Social Studies are required for graduation. One unit of World Geography in 9th grade, one unit of World History in the $10^{\text {th }}$ grade and one unit of credit in United States History in the $11^{\text {th }}$ grade is the normal course sequence. Another possible course sequence includes: one-half ( $1 / 2$ ) unit of credit in Economics, and one-half ( $1 / 2$ ) unit of credit in Government in place of World History. In Tennessee most universities and colleges require one (1.0) unit of World History or World Geography for entrance.

One-half ( $1 / 2$ ) unit of credit for Personal Finance is also required for graduation.

## U. S. History

Grades 11-12
One credit/One year
Prerequisite(s): None
In United States History, students study the history of the United States Reconstruction to the present. The six social studies standards of essential content knowledge and four process skills are integrated for instructional purposes. Students will utilize different methods that historians use to interpret the past, including points of view and historical context.

## World Geography

Grades 9-12
One credit/One year
Prerequisite(s): None
The broad goal of World Geography is to expand the students' basic concepts, skills and experiences relating to the geographic, political, social, and economic institutions for the various regions of the world.

For graduation, students are required to earn one unit in World Geography or one unit in World History.

## Government

Grades 10-11
One-half credit/One semester
Prerequisite(s): None
The Government High School course focuses on the United States' founding principles and beliefs. Students will study the structure, functions, and powers of government at the national, state, and local levels. Integrate the six social studies standards of essential content knowledge and four process skills will be integrated for instructional purposes.

## World History

Grades 10-12
One credit/One year
Prerequisite(s): None
World History is offered at the Senior-high level. The major goals of the course are to provide opportunities for students to examine the past; to study backgrounds, beliefs, values, attitudes and customs of past societies; and to gain an understanding of the ways these differences impact upon world events in our global society. Emphasis is placed on developing respect for cultural differences, viewing these differences as a right of all people, and examining world problems and the complexity of arriving at acceptable solutions.

For graduation, students are required to earn one unit of World History or one unit of World Geography.

## Economics

Grades 11-12
One-half credit/One semester
Prerequisite(s): None
The economic system of the United States is compared with other economic systems with emphasis on how each determines what is to be produced, who will produce goods and services and how much of each, and how goods and services will be distributed. The law of supply and demand - its effects on wages, surplus, production, consumption and distribution - is explored. The role of finance in securing and managing capital, as well as the role of government in regulating business, is examined. Students are guided in a study of career opportunities and choices.
The graduation requirement of $1 / 2$ unit of Economics may also be satisfied by Business Economics, International Business/Marketing (INFORMATION TECHNOLOGY), Consumer Economics, one credit in a selected core MARKETING EDUCATION course, or out-ofschool experiences through Junior Achievement (see the following).

## Personal Finance

## Grades 9-12

One-half credit/One semester
Prerequisite(s): None
Personal Finance is a course designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered include income, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions. Required for graduation.

## African American History

Grades 11-12
One-half credit/One semester
Prerequisite(s): None
African Americans have made significant contributions to the economic, political, social, and cultural development of the United States. Through this course, students will discover how African

Americans have always been an integral part of the American experience. African Americans have also been a viable force unto themselves with their own experiences, culture, and innovations. Through this course, students will discover the rich history of African Americans and how this history is understood in the broader context of the United States' history.

## Facing History and Ourselves

By Special Permit
Grades 10-12
One-half credit/One semester
Prerequisite(s): None
In this semester-long Social Studies elective Facing History uses the methods of the humanities-inquiry, analysis, and interpretation-to promote the knowledge, value, and skills needed to preserve and protect democracy. The interdisciplinary approach begins with issues of identity, moves to a consideration of history and judgment, and ends with examples of positive participation. Throughout, students and teachers confront the moral questions inherent in a study not only of racism, anti-Semitism, and violence but also of courage, caring, and compassion. Through a rigorous examination of the events that led to the Holocaust, students come to understand that few events in history are inevitable. Most are the result of choices made by countless individuals and groups. Even the smallest of those decisions may have profound consequences that affect generations to come.

## Advanced Placement (AP) Human Geography

## Grades 10-12

One credit/One year
Prerequisite(s): Honors-level coursework in English or Social Studies
Advanced Placement (AP) Human Geography is designed to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and altercation of Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. Concepts to be introduced and studies are maps and spatial data, the implications of associations among phenomena in places, relationships among patterns and processes, the regionalization process, and interconnections among places. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) World History

Grades 10-12
One credit/One year
Prerequisite(s): Honors World History or Honors World Geography
Advanced Placement (AP) World History is a one-year, college course offered at the high school level. Its purpose is to develop a greater understanding of the evolution of global contacts and processes. This understanding is advanced through a combination of factual information and analytical skills. The course will highlight the nature of change through international frameworks and their causes and consequences as well as comparison among major societies. A variety of primary and secondary sources will be used in the course for research and analysis. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Microeconomics

Grades 11-12
One credit/One year
Prerequisite(s): Honors-level English and Math coursework
Advanced Placement (AP) Macroeconomics is designed to give the student a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Macroeconomics

Grades 11-12
One credit/One year
Prerequisite(s): Honors-level English and Math coursework
Advanced Placement (AP) Macroeconomics is designed to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. It introduces concepts such as scarcity and opportunity costs. It explores concepts such as comparative advantage, functions of an economic system, and how the system of supply and demand is used to analyze the workings of a free market economy. It will also introduce the concept of a business cycle to give students an overview of economic fluctuations and to highlight the dynamics of unemployment, inflation, and economic growth. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Junior Achievement Economics

## Grades 11

One-half credit/One semester
Prerequisite(s): None
Junior Achievement Economics is offered in conjunction with Junior Achievement and area businesses. It is approved by the Tennessee State Department of Education in lieu of the one-half unit of Economics required for graduation. Junior Achievement Economics is a laboratory-based course, which requires students to participate in the major phases of corporate operations by forming their own companies. Case studies reinforce concepts learned, as do computer-generated simulations. One day a week, consultants from sponsoring businesses share their expertise in the operation of a business. Students participate in the economics process as consumers, workers, managers, and observer's workers, managers, and observers.

## Comparative Government

Grades 9-12
One-half credit/One semester
Prerequisite(s): Admission to Optional International Studies
Comparative Government provides an overview of American government, and an introduction and analysis of other most widely practiced forms of government such as socialism, communism, constitutional monarchy, etc. Content focus will be placed on countries representative of these governmental forms and the influence these governments have on the social and economic well
being of the citizenry. The course is part of the Optional International Studies Program offered at Craigmont High School.

## Humanities

Grades 11-12
One credit/One year
Prerequisite(s): None
Humanity is an honors course offered as an elective to eleventh and twelfth grade students. The course is an introduction to the intellectual and artistic heritage of western civilization, utilizing a chronological survey of the progress of the humanities from ancient Greece to the twentieth century.

## Practical Law

Grades 9-12
One-half credit/One semester
Prerequisite(s): None
Practical Law is taught using citizenship and the role of citizenship as a framework. There is an emphasis on the principle of equality under law to help students understand the responsibilities that accompany the rights granted to citizens in the United States. The working relationship between the courts and court procedures, the functions of attorneys, and the legislative right to make laws are examined. Emphasis is placed on knowledge and skills that will enable students to deal effectively in human relationships and on the acquisition of inquiry skills to promote sound judgments in everyday living under the law.

## Psychology

Grades 11-12
One-half credit/One semester
Psychology is an elective in the science of individual behavior. Students investigate how people behave and why they behave as they do. Students, through application, learn to face and resolve problems of a personal nature and problems involving interaction with other individuals.

## Sociology

Grades 11-12
One-half credit/One semester
Prerequisite(s): None
Sociology is designed to help students understand the patterns, processes, and institutions of human group interaction. The student is introduced to basic principles and concepts of sociological inquiry, the investigative tools needed for such inquiry and the examination of selected areas of the structure and function of American society.

## Contemporary Issues

Grades 11-12
One-half credit/One semester
Prerequisite(s): None
In Contemporary Issues, students study various dynamic issues facing today s society enabling them to discover their values and responsibilities as citizens in society. Students will utilize different learning methods to research, discuss, debate and formulate opinions on those contemporary issues. Students will also be
encouraged to think independently and appreciate the complexities and dilemmas of social/political issues. The course will utilize the six social studies standards of essential content knowledge and four process standards are integrated for instructional purposes.

## Advanced Placement (AP) Government \& Politics <br> AP U.S. Government \& Politics <br> AP Comparative Government \& Politics <br> Grades 11-12 <br> One credit/One year <br> Prerequisite(s): Honors-level Social Studies courses

Advanced Placement (AP) U.S. Government and Politics is a one-year, college preparatory course offered at the high school level. Its purpose is to provide the student with a learning experience equivalent to that obtained in most college introductory U. S. government and political courses. The course will require the understanding of facts, concepts, and theories pertaining to U.S. government and politics. The student will also be required to understand and justify patterns, structures, procedures, and behaviors and their consequences in government and politics. This understanding and justification will come from the analysis and interpretation of data relevant to U. S. government and politics.

## The AP course in Comparative Government and Politics

introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes. Comparison assists both in identifying problems and in analyzing policymaking

Note: All students enrolled in an AP course are expected to take the course s AP exam.

## Advanced Placement (AP) United States History

## Grades 11-12

One credit/One year
Prerequisite(s): Honors-level coursework in English and Social Studies

Advanced Placement (AP) United States (U. S.) History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. Students will learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. Students will also learn how to draw conclusions and present reasons and evidence clearly and persuasively in essay format. Note: All students enrolled in an AP course are expected to take the course's AP exam. Advanced Placement United States History can be substituted for the one unit in United States History to meet graduation requirements.

## Advanced Placement (AP) Psychology

Grades 11-12
One credit/One year
Prerequisite(s): Honors-level coursework in English and Social Studies
Advanced Placement Psychology is a one (1) year elective collegelevel course in the science of individual behavior, offered to high school juniors and seniors. Students gain a broad knowledge of the discipline of psychology from historical and current perspectives and engage in challenging activities that involve inquiry and problem solving. Note: All students enrolled in an AP course are expected to take the course s AP exam.

## Dual Enrollment (EC) United States History Before 1877

Grade(s) 11-12
Three semester hours College credit/ High school credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) United States History Before 1877 is onesemester college-level course that surveys Colonial America; the Revolution; Confederation and Constitution; Ante-Bellum Period; the Civil War and Reconstruction. Dual Enrollment (EC) US History Before 1877 and Dual Enrollment (EC) US History Since 1877 may be taken in lieu of US History for graduation requirement.

## Dual Enrollment (EC) United States History Since 1877

Grade (s) 11-12
Three semester hours College credit/High school credit Prerequisite(s): Dual Enrollment (EC) United States History Before 1877

Dual Enrollment (EC) United States History Since 1877 is a one semester college-level course that surveys post-Civil War Industrialization and Reform; the Progressive Era; World War I; the Depression and the New Deal; World War II; the Cold War; and Recent Developments.

## Dual Enrollment (EC) Microeconomics

Grade (s) 11-12
Three semester hours College credit/ 0.5 High School Credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Microeconomics is a one semester collegelevel course that focuses attention on the micro concept of economic analysis, and primary attention given to the theory of the firm and partial equilibrium problems arising within any enterprise economy. Attention is also given to government regulation of business, the theory of income distribution as it pertains to the determination of wages, rents and profits, and international trade.

## Dual Enrollment (EC) Macroeconomics

Grade(s) 11-12
Three semester hours College credit/ 0.5 High School Credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Macroeconomics is a one semester collegelevel course that focuses attention on the aggregate or macroeconomic relationships and gives attention to the central problems of economic organization, the functioning of the price system, the economic role of government, the determination of national income, employment, the rate of inflation, and fiscal and
monetary policy. Further, the student is introduced to the interactions between aggregate markets such as the product market, the factor/labor market, and the money market.

## Dual Enrollment (EC) American Government <br> Grade(s) 11-12 <br> Three semester hours College credit/ 0.5 High school credit Prerequisite(s): College Admission Criteria

Dual Enrollment (EC) American Government is a one semester college-level course where students survey the American political system. Topics include the Constitution, federalism, interaction between the three branches of the federal government (legislative, executive, and judicial), political actors outside government (interest groups, media, political parties), state and local government, political culture, civil liberties, civil rights, and public policy

## COMPUTER TECHNOLOGY

Mastering the standards will enable students to learn about and effectively access and use technology resources. Students will use a variety of computer applications and tools and will explore the social, historical and ethical implications of using computer technology. It is expected that every student will demonstrate proficiency using these standards by the time the student completes high school. These standards can be met through this course or activities incorporated into other curriculum areas. (Alternatively, students may demonstrate mastery of these standards as a result of grades K-8 technology experiences.) In the one credit option, it is expected that a sufficient number of computers and applications will be available to allow for the optimum exploration and utilization of applications.

## Programming I

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): Algebra I
This is an introductory course that teaches the essential concepts of a computer programming language. Included are: operation and characteristics of the local computer system; interface objects and events; program design; simple data types; I/O operations; branching techniques, etc. The course may use either a procedure-oriented high-level language (e.g. QuickBasic, TrueBasic, and Pascal) or an object oriented/event driven high-level language (e.g. Visual Basic, Java, and C++).

## Programming I (Honors)

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): Algebral
This is an introductory course that teaches the essential concepts of a computer programming language. Included are: operation and characteristics of the local computer system; interface objects and events; program design; simple data types; I/O operations; branching techniques, etc. The course may utilize either a procedure-oriented high-level language (e.g. QuickBasic, TrueBasic, and Pascal) or an object oriented/event driven high-level language (e.g. Visual Basic, Java, and C++). The Honors class allows students to study at Advanced Programming I - Honors higher levels to become better prepared to take more advanced programming classes. (Formerly Data Structures and Language Organizations I)

## Programming II

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): Programming I Prerequisite(s):
Algebra I, Programming I \& II

This is the advanced level of an introductory course that expands the concepts of computer programming from those introduced in Programming I. Included are: enhanced user interfaces; file operations; iterative structures, etc. The course may utilize either a procedure-oriented high-level language (e.g. QuickBasic and TrueBasic) or an object-oriented/event-driven high-level language (e.g. Visual Basic).

## Programming II (Honors)

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): Programming I

This is the advanced level of an introductory course that expands the concepts of computer programming from those introduced in Programming I. Included are: enhanced user interfaces; file operations; iterative structures, etc. The course may utilize either a procedure-oriented high-level language (e.g. QuickBasic and TrueBasic) or an object-oriented/event driven high-level language (e.g. Visual Basic). The Honors class allows students to study at higher levels to become better prepared to take more advanced programming classes.

## Advanced Programming I

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): Algebra I, Programming I \& II
This course is an opportunity to extend a student's knowledge and skills in computer programming. The vehicle may be languages such as Modula 2, Pascal, Python, C++, or Java. It is designed to enhance a student's exposure to computer science and to establish a stronger foundation for pursuit of future college-level credentials in that field. Students will encounter and work with constructs such as queues, stacks, linked lists, heaps, dictionaries, and trees. The focus is on structured problem-solving techniques using single-level components. The instructional context is the emphasis on implementation of computer-based solutions of simple problems.

This course is an opportunity to extend a student's knowledge and skills in computer programming. The vehicle may be languages such as Modula 2, Pascal, Python, C++, or Java. It is designed to enhance a student's exposure to computer science and to establish a stronger foundation for pursuit of future college-level credentials in that field. Students will encounter and work with constructs such as queues, stacks, linked lists, heaps, dictionaries, and trees. The focus is on structured problem-solving techniques using single-level components. The instructional context is the emphasis on implementation of computer-based solutions of simple problems. The Honors class allows students to study at higher levels to become better prepared to take more advanced programming classes.

Advanced Programming II<br>Grade(s) 10-12<br>One-half credit/One semester<br>Prerequisite(s): Advanced Programming I

This course is an advanced interaction with programming languages such as Modula 2, Pascal, Python, C++, or Java. It is designed to expand the student's expertise with sophisticated programming concepts as introduced in Data Structures and Language Organizations I. More extensive work is done with constructs such as queues, stacks, linked lists, heaps, dictionaries, and trees. The focus is on structured problem-solving techniques using multi-level components. The instructional context is in the emphasis for implementation of computer-based solutions with data retrieval and manipulation.

## Advanced Programming II - Honors

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): Advanced Programming I
This course is an advanced interaction with programming languages such as Modula 2, Pascal, Python, C++, or Java. It is designed to expand the student's expertise with sophisticated programming concepts as introduced in Data Structures and Language Organizations I. More extensive work is done with constructs such as queues, stacks, linked lists, heaps, dictionaries, and trees. The focus is on structured problem-solving techniques using multi-level components. The instructional context is in the emphasis for implementation of computer-based solutions with data retrieval and manipulation.

## Advanced Placement (AP) Computer Science - A

Grade(s) 11-12
One credit/One year
Prerequisite(s): Honors Algebra I, Honors Advanced Programming I \& II

Advanced Placement Computer Science - A is a college-level course in which the student may actually earn college credit. The major emphasis, while preparing the student for taking the Advanced Placement Computer science tests, is programming methodology, objects and events, algorithms, and data structures using Java as the tool. Applications are used to develop student awareness of the need for particular algorithms and data structures and to provide topics for programming assignments. Treatments of computer systems and the social implications of computing are integrated into the course work. As the College Board states, "Computer Science A emphasizes programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first semester course in computer science. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Interactive Multimedia Presentations I

Grade(s) 9-12
One-half credit/One semester
Prerequisite: None
Interactive Multimedia Presentations I teaches students to plan, create and design movies, games and interactive applications through the use of 2D graphics. The course uses Scratch, a 2D programming environment developed at MIT, and used to instruct students in the primary concepts of computer programming.

## Interactive Multimedia Presentations II

Grade(s) 11-12
One-half credit/One semester
Prerequisite: None
Multimedia II is an introduction to objected programming using graphics in the creation of 3D movies, games and interactive applications. Students will learn to use Alice, a 3D programming environment developed at Carnegie Mellon University, and used in high schools and colleges across the country.

Interactive Multimedia Presentations II (Honors/Dual Enrollment) Grade(s) 11-12
One half high school credit/Three college credits
One semester
Prerequisite: Open to all juniors and seniors with an unweighted 2.7 average.

Dual Enrollment Interactive Multimedia II is an introduction to object oriented programming using graphics in the creation of 3D movies, games and interactive applications. This is a college course which includes projects and tests assigned and graded by CBU. Students who receive an $A$ or $B$ in the course will receive 3 credits in ECE 130 from CBU. This course covers algorithmic thinking and expression; abstraction; appreciating elegance; object development; interactive programs; and core programming concepts.

The class will:

- follow the CBU curriculum for the course;
- use the book Learning to Program with Alice by Dann, Cooper \& Pauch;
- take the same tests as the CBU classes.


## Advanced Programming II (Honors/Dual Enrollment)

Grade(s) 11-12
One half high school credit/Three college credits
One semester
Prerequisite: Advanced Programming I with an A or B average and an unweighted 3.0 average.

Dual Enrollment Advanced Programming II is a course in Introduction to Computer Science (ECE 132) at CBU. Students will learn to design and implement computer programs to solve problems using the Java programming language. Students who receive an $A$ or $B$ in the course will receive 3 credits from CBU, which will transfer to any college or university. This course covers basic object-oriented programming design, program implementation, program analysis, standard data structures and stand algorithms.
The class will:

- follow the CBU curriculum for the course
- use the book, An Introduction to Object Oriented Programming with Java, 4th edition, by C. Thomas Wu
- take the same tests as the CBU classes


## WORLD LANGUAGES

The World Language Program offers the opportunity to study eight modern foreign languages, French, German, Spanish, Russian, Arabic, Chinese and Japanese, and one classical language, Latin, to students in grades 9-12. In addition, many high schools offer one semester of Etymology and one semester of Mythology to students in grades 10-12. The study of world language is recommended for both college bound and career track students, since world language skills are a valuable asset for employment in today's global economy.

Students may major in a world language with three credits in one language or two in one language and the half credits in Etymology and Mythology.

Beginning with the 1989 school year, the State Board of Regents (SBR) requires two years of a single world language to enter any SBR school in Tennessee. Since some SBR schools may not accept the Etymology/Mythology credit as world language, students should check with the school of their choice prior to making course selections.

Beginning in 2009, the Tennessee Diploma Project requires all students to earn two consecutive credits in the same world language to meet graduation requirements. Credit(s) obtained in middle school courses do not satisfy graduation requirements but rather serve to advance the student's language study in the high school.

Admission to Advanced Placement courses requires:
Completion of level three honors course. Students may be admitted to AP level courses with prior approval by the World Language Department based on demonstrated proficiency as measured by a standardized assessment demonstrating proficiency at the Intermediate High level in speaking and writing or reading.

## LEVEL ONE MODERN LANGUAGES

Arabic I, Chinese I, French I, German I, Japanese I, Spanish I, Russian I
Grade(s) 9-12
One credit/One year
Prerequisite(s): None
In the first year world language course, students are introduced to the fundamentals of the language, with an emphasis on developing novice-level communication skills. Students are provided contact with the cultures of the people who speak the language studied, through technology, real-life cultural experiences and authentic materials.

## LEVEL TWO MODERN LANGUAGES <br> Arabic II, Chinese II, French II, German II, Japanese II, Spanish II, Russian II <br> Grade(s) 10-12 <br> One credit/One year <br> Prerequisite(s): Level I

In the second year world language course, students continue to pursue the development of novice-level communication skills. They
continue to become acquainted, through technology, real-life cultural experiences and authentic materials, with the cultures of the people who speak the language studied.

## LEVEL THREE MODERN LANGUAGES

Arabic III, Chinese III, French III, German III, Japanese III, Spanish III, Russian III
Grade(s) 11-12
One credit/One year
Prerequisite(s): Level II or Students may be admitted to third level courses with prior approval by the World Language Department based on demonstrated proficiency as measured by a standardized assessment demonstrating proficiency at the Intermediate Low level in speaking and writing. (STAMP or ACTFL AAPPL) Additionally, the student must as pass a content-based exam with a grade of $C$ or better.

In the third year world language courses, students solidify novicelevel communication and skills. They begin to move toward an intermediate level of communicative proficiency. They continue to become acquainted, through technology, real-life cultural experiences and authentic materials, with the cultures of the people who speak the language studied.

## LEVEL THREE ALTERNATIVE COURSE OFFERING

## Spanish for Business

Grade(s) 11-12
One credit/One year
Prerequisite(s): Spanish II
This course is designed to give the student a foundation in general business vocabulary, basic business culture concepts, and experience in oral and written communication in a business context. Emphasis is placed on understanding and using Spanish in practical business and work-related settings.

## LEVEL FOUR MODERN LANGUAGAES

## French IV, German IV, Spanish IV

Grade 12
One credit/One year
Prerequisite(s): French III, German III, Spanish III or a score of Intermediate Mid on a nationally recognized exam (ether STAMP or an ACTFL OPI speaking and writing exam). Additionally, the student must as pass a content-based exam with a grade of $C$ or better.

Fourth year world language courses are recommended for students interested in developing proficiency in the world language. Continued emphasis on communication skills, combined with research and study of topics of cultural interest, prepare the student for college study, and for career possibilities where world language proficiency is an asset.

[^0]Coordinator based on demonstrated proficiency as measured by a standardized assessment demonstrating proficiency at the Intermediate Mid level in speaking and writing.

As described by the College Board, Advanced Placement World Language courses are equivalent in content and difficulty to a third semester college-level language course. It is for students who "already have a good command of grammar and vocabulary and have competence in listening, reading, speaking, and writing. Although these qualifications may be attained in a variety of ways, it is assumed that most students taking this course will be in the final stages of their secondary school training and will have substantial coursework in the language." Students are more likely to be successful in AP World Language courses, by completing level a four course. Students may also be admitted upon demonstrating spoken and written proficiency on a standardized assessment at the Intermediate low level. Note: All students enrolled in an AP course are expected to take the course's AP exam.

Dual Enrollment (DC) Elementary French I and II and Dual Enrollment (DC) Spanish I and II
Grade(s) 11-12
Three semester hours College credit/High school credit Prerequisite(s): College Admission Criteria

Dual Enrollment (DC) Elementary French I and Dual Enrollment (DC) Elementary Spanish I introduce students to the fundamentals of grammar, pronunciation, and elementary conversation. The second semester, Dual Enrollment (DC) Elementary French II and Spanish II include reading and translation of texts of graded difficulty.

Dual Enrollment (EC) Intermediate French I \& II and Dual Enrollment (EC) Intermediate Spanish I \& II
Grade(s) 11-12
Three semester hours College credit/ High school credit Prerequisite(s): College Admission Criteria

Dual Enrollment (EC) Intermediate French I and French II, and Dual Enrollment (EC) Intermediate Spanish I and Spanish II are collegelevel courses that provide a comprehensive review of grammar, composition and conversation. The second semester (EC) Intermediate French II or (EC) Intermediate Spanish II includes reading of short stories, designed to increase the student's vocabulary and to contribute to his mastery of idiomatic constructions.

## CLASSICAL LANGUAGES

## Latin I

## Grades 9-12

One credit/One year
Prerequisite(s): None
Students are introduced to the Latin language and the culture and institutions of the Romans through comparisons between ancient and modern ways of life. Students learn to recognize the influence of ancient Roman civilization on the modern world. Emphasis is placed on vocabulary and translations from English to Latin and Latin to English.

## Latin II

Grade(s) 10-12
One credit/One year
Prerequisite(s): Latin I
Latin II expands grammatical and vocabulary skills and enables the student to read a greater variety of stories. The study of literature is begun with translations of Hercules, the Argonauts, and selected works of Livy, Caesar and Ovid. Emphasis is placed on understanding social and political conditions in ancient Rome.

## Latin III

Grade(s) 11-12
One credit/One year
Prerequisite(s): Latin II
Students continue to develop competency in reading, verbal and grammar skills through the study of advanced grammatical structures and additional vocabulary. The works of Cicero and other classical authors are studied. Stylistic analysis is an integral part of the course.

## Latin IV

Grade 12
One credit/One year
Prerequisite(s): Latin III
Latin IV includes a review of grammar taught in previous courses, as well as a study of the grammar and style of Vergil, with emphasis on archaisms and Grecisms. The course utilizes the works of other outstanding poets, such as Ovid and Horace, to develop poetical techniques and scansion skills. Students explore the influence of the poets on English literature and modern life.

## Advanced Placement (AP) Latin

## Grade 12

One credit/One year
Prerequisite(s): Honors Level III required with a "B" average and prior approval of the instructor

AP Latin is designed to provide advanced high school students with a rich and rigorous Latin course, approximately equivalent to an upper level intermediate (fourth or fifth semester) college or university Latin course. Students who successfully complete the course are able to read, understand, translate and analyze Latin poetry and prose.

Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Etymology

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): None
The purpose of this course is to enhance students' English vocabulary, their understanding of the structure of the English language, and their understanding of the nature of languages in general, through the systematic analysis of words and word origins from Greek, Latin, and modern languages.

## Mythology

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): None
The course includes the study of basic mythologies of major civilizations. It provides a background in mythology to help students understand allusions in the writing of many great western writers; it demonstrates the influence of mythology on the origins of some words in the English language; it connects mythology with the study of scientific phenomena; and finally, it explores universal truths and connections among mythologies of diverse cultures.

## FINE ARTS

## VISUAL AND PERFORMING ARTS

The Arts standards reflect a basic part of the total process of education. Course offerings in the areas of Music, Dance, Theatre Arts and Visual Arts help all students to develop multiple capabilities for understanding and deciphering an image- and symbol-laden world. The arts develop critical and problem solving skills that are applicable to lifelong learning. In arts courses students are asked to perform/produce, analyze, interpret and evaluate art works in a historical and cultural context. Many colleges and universities, including those governed by the Tennessee Board of Regents, require fine arts courses for college entrance.

## MUSIC

The music program in grades $9-12$ builds sequentially on the music program in the elementary and middle/junior schools and provides the foundation for lifelong participation in application of knowledge and skills and enjoyment of music.

Music is classified into six levels of difficulty to insure growth from one year to the next. These expectations build on the previous level to ensure that students meet and/or exceed the established music standards.

## Middle

- Level I - Entry level. May cover easy keys, meters, and rhythms; limited ranges.
- Level 2 - Emerging. May include changes of tempo, key, and meter, modest ranges.


## Middle/High

- Level 3 - Emerging-Proficient. Contains moderate technical demands, expanded ranges, and varied interpretive requirements.


## High School

- Level 4 - Proficient. Requires well-developed technical skills, attention to phrasing and interpretation, and ability to perform various meters and rhythms in a variety of keys.
- Level 5 - Proficient-Advanced. Requires advanced technical and interpretive skills; contains key signatures with numerous sharps or flats, unusual meters, complex rhythms, subtle dynamic requirements.
- Level 6 - Advanced. Requires exceptional musical competence for musically mature students.

Credits earned in the Music grouping may be used to satisfy the Fine Arts/Performing Arts requirement for a high school diploma and for college entrance requirements.

## General Music

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
Music! Its role and importance in our lives is a new approach to the traditional general music courses. This course focuses on discovering music as a means of communication in and between cultures, and how we use music to tell the story of our lives.

## Vocal Music I - Levels 2-3

Grade(s) 9-12
One credit/One year
Prerequisite(s): Instructor permission
This course will provide instruction in creating, performing, listening to, and analyzing music, in addition to focusing on vocal production, using music literature with a level of difficulty of 2 to 3 on a scale of 1 to 6 . Public performances and participation in local festival activities will be used as part of assessment.

## Vocal Music II - Levels 3-4

Grade(s) 10-12
One credit/One year
Prerequisite(s): Vocal Music I and Instructor Permission
This course is a continuation of Vocal Music I with emphasis on expanding vocal range and increasing sight-reading skills. Public performances and participation in local festival activities at an increased level of difficulty of 3 to 4 , on a scale of 1 to 6 , will be used as part of assessment.

## Vocal Music III - Levels 4-5

Grade(s) 11-12
One credit/One year
Prerequisite(s): Vocal Music II and Instructor Permission
This course is a continuation of Vocal Music II with higher expectations in all performance standards in the state curricular framework. The importance of vocal health and the development of advanced vocal techniques will be emphasized. Public performances and participation in local festival activities using music literature with a higher level of difficulty of 4 to 5 , on a scale of 1 to 6 , will be used as part of assessment.

## Vocal Music IV - Levels 5-6

## Grade 12

One credit/One year
Prerequisite(s): Vocal Music III and Instructor Permission
At this level the student is expected to sing with expression and technical accuracy a large and varied repertoire, written in more than four parts; sing in ensembles with one student on a part; improvise stylistically appropriate harmony in a variety of styles; and compose music demonstrating imagination and technical skill in applying the principles of composition. Public performances and participation in
local festival activities using music literature with a level of difficulty of 5 to 6 , on a scale of 1 to 6 , will be used as part of assessment.

## Chamber Singers

Grade(s) 10-12
One credit/One year
Prerequisite(s): Audition and Instructor Permission
This course is open to students who have acquired the proficiency to perform the more complex music literature. Emphasis is placed on developing performance techniques and stylistic interpretation of vocal chamber music. Public performances and participation in activities with a level of difficulty of 4 to 6 , on a scale of 1 to 6 , will be used as part of assessment.

## Swing/Show Choir

Grade(s) 10-12
One credit/One year
Prerequisite(s): Audition and Instructor Permission
This course is designed to develop stage presence, showmanship, advanced sight-reading and vocal performance skills necessary to perform popular music. Public performances and participation in activities with a level of difficulty of 3 to 6 , on a scale of 1 to 6 , will be used as part of assessment.

## Class Piano I-Levels 1-2

Grade(s) 9-12
One credit/One year
Prerequisite(s): Instructor Permission (Class size is limited)
This course will provide instruction in creating, performing, listening to, and analyzing music, in addition to focusing on developing keyboard skills. Public performances and participation in local activities using music literature with a level of difficulty of 2 to 3 , on a scale of 1 to 6 , will be used as part of assessment.

## Class Piano II - Levels 2-3

Grade(s) 10-12
One credit/One year
Prerequisite(s): Class Piano I and Instructor Permission (Class size is limited)

This course will provide additional instruction in creating, performing, listening to, and analyzing music in addition to focusing on intermediate keyboard skills in keyboard techniques and musical expression. Public performances and participation in local festival activities using music literature with a level of difficulty of 3 to 4 , on a scale of 1 to 6 , will be used as part of assessment.

## Class Piano III - Levels 3-4

Grade(s) 11-12
One credit/One year
Prerequisite(s): Class Piano II and Instructor Permission (Class size is limited)

This course will provide advanced instruction in creating, performing, listening to, and analyzing music in addition to focusing on early advanced keyboard skills in keyboard techniques and musical expression. Public performances and participation in local festival
activities using music literature with a level of difficulty of 4 to 5 , on a scale of 1 to 6 , will be used as part of assessment.

## Class Piano IV - Levels 4-6

Grade 12
One credit/One year
Prerequisite(s): Class Piano III and Instructor Permission (Class size is limited)

This course will provide advanced instruction in creating, performing, listening to, and analyzing music, in addition to focusing on advanced keyboard skills in keyboard techniques and musical expression.
Public performances and participation in local festival activities using music literature with a level of difficulty of 5 to 6 , on a scale of 1 to 6 , will be used as part of assessment.

## Theory and Harmony

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course will provide concentrated study in the fundamentals in creating and analyzing music. Laboratory study devoted to eartraining and keyboard proficiency is required.

## Advanced Placement (AP) Music Theory

Grade(s) 10-12
One credit/One year
Prerequisite(s): Honors Theory and Harmony or Instructor Permission

This is a continuation of Theory and Harmony which provides additional study in the fundamentals of music in creating and analyzing music such as triad inversions; dominant sevenths; secondary triads; and modulations as they apply to the eighteenth century. Laboratory study devoted to ear-training and keyboard proficiency is required. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Instrumental Music I (Beginning Band)

Grade(s) 9-12
One credit/One year
Prerequisite(s): Instructor Permission
This course will provide instruction in creating, performing, listening to, and analyzing music in addition to focusing on beginning instrument production. Public performances and participation in local festival activities with a level of difficulty of 1 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Instrumental Music II (Intermediate Band)

Grade(s) 10-12
One credit/One year
Prerequisite(s): Instrumental Music I (Beginning Band) and Instructor Permission

This course will provide additional instruction in creating, performing, listening to, and analyzing music, in addition to focusing on intermediate instrument skills. Public performances and participation in local festival activities with a level of difficulty of 2 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Senior Band I - Level 2-3

Grade(s) 9-12
One credit/One year
Prerequisite(s): Beginning Band Instructor
Permission and Audition
This course will provide instruction in creating, performing, listening to, and analyzing music, in addition to focusing on ensemble and solo performance skills. Public performances and participation in local festival activities with a level of difficulty of 2 to 3 , on a scale of 1 to 6 , will be used as part of assessment. Marching Band fundamentals may be offered as a part of the learning.

## Senior Band II - Level 3-4 (EE/ET)

Grade(s) 10-12
One credit/One year
Prerequisite(s): Senior Band I and Instructor Permission
This course will provide additional instruction in creating, performing, listening to, and analyzing music. In addition, emphasis is placed upon technical development and authentic stylistic interpretation of band literature while developing analytical and critical skills. Public performances and participation in local festival activities with a level of difficulty of 3 to 4 , on a scale of 1 to 6 , will be used as part of assessment. Marching Band fundamentals may be offered as a part of the learning.

## Senior Band III - Level 4-5 (EE/ET)

## Grade(s) 11-12

One credit/One year
Prerequisite(s): Senior Band II and Instructor Permission
This course is a continuation of Senior Band II with higher expectations in all performance standards in the state curricular framework. Expanded performance repertoire including advanced solo and ensemble literature will be emphasized. Public performances and participation in local festival activities using music literature with a level of difficulty of 4 to 5 , on a scale of 1 to 6 , will be used as part of assessment. Marching Band may be offered as a part of the learning.

## Senior Band IV - Level 5-6

## Grade 12

One credit/One year
Prerequisite(s): Senior Band III and Instructor Permission
At this level the student is expected to perform with expression and technical accuracy a large and varied repertoire, diverse chamber and solo literature in a variety of styles; compose music demonstrating imagination and technical skill in applying the principles of composition; and conduct an ensemble demonstrating knowledge and skills of music. Public performances and participation in local festival activities using music literature with a level of difficulty of 5 to 6 , on a scale of 1 to 6 , will be used as part of assessment. Marching Band may be offered as a part of the learning.

## Stage (Jazz) Band I-Levels 2-3

Grade(s) 9-12
One credit/One year
Prerequisite(s): Beginning \& Intermediate Band Audition and
Instructor Permission
Stage (Jazz) Band I includes the study and performance of varied jazz styles, including repertory from standard big band literature as well as studio ensembles. Individual concentration is on improvisational techniques. Public performances and participation in activities with a level of difficulty of 2 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Stage (Jazz) Band II - Levels 3-4

Grade(s) 10-12
One credit/One year
Prerequisite(s): Stage (Jazz) Band I Audition and Instructor
Permission
Stage (Jazz) Band II is a continuation of Stage (Jazz) Band I with an increased emphasis on stylistic aspects and improvisational skills. Public performances and participation in activities with a level of difficulty of 3 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Stage (Jazz) Band III - Levels 4-5

Grade(s) 11-12
One credit/One year
Prerequisite(s): Audition and Instructor Permission
Stage (Jazz) Band III is a continuation of Stage (Jazz) Band II. It includes composing and arranging for the group with critiques by performers, composers, arrangers, and teachers. Conducting, listening, analyzing, studying and criticizing popular and contemporary music are emphasized. Public performances and participation in activities with a level of difficulty of 4 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Stage (Jazz) Band IV - Levels 5-6

## Grade 12

One credit/One year
Prerequisite(s): Stage (Jazz) Band III
Audition and Instructor Permission
Stage (Jazz) Band IV provides opportunities to perform diverse popular and idiomatic literature with varied instrumentation. Concentration is on knowledge and skills and their application to other life experiences. Public performances and participation in activities with a level of difficulty of 5 or higher, on a scale of 1 to 6 , will be used as part of assessment.

## Orchestra I-Levels 2-3

Grade(s) 9-12
One credit/One year
Prerequisite(s): 2 Years of Strings,
Instructor Permission and Audition
Orchestra I will provide instruction in creating, performing, listening to, and analyzing music in addition to focusing on string ensemble and solo performance skills. Public performances and participation in
local festival activities with a level of difficulty of 2 to 3 , on a scale of 1 to 6 , will be used as part of assessment.

## Orchestra II - Levels 3-4

Grade(s) 10-12
One credit/One year
Prerequisite(s): Orchestra I and Instructor Permission
This course will provide additional instruction in creating, performing, listening to, and analyzing music. Additionally, emphasis is placed upon technical development and authentic stylistic interpretation of string literature while developing analytical and critical skills. Public performances and participation in local festival activities with a level of difficulty of 3 to 4 , on a scale of 1 to 6 , will be used as part of assessment.

## Orchestra III - Levels 4-5

Grade(s) 11-12
One credit/One year
Prerequisite(s): Orchestra II and Instructor Permission
This course is a continuance of Orchestra II with higher expectations in all performance standards in the state curricular framework. Expanded performance repertoire including advanced solo and ensemble literature will be emphasized. Public performances and participation in local festival activities using string music literature with a level of difficulty of 4 to 5 , on a scale of 1 to 6 , will be used as part of assessment.

## Orchestra IV - Levels 5-6

Grade 12
One credit/One year
Prerequisite(s): Orchestra III and Instructor Permission
At this level the student is expected to perform with expression and technical accuracy a large and varied repertoire, diverse chamber and solo literature in a variety of styles; compose music demonstrating imagination and technical skill in applying the principles of composition; and conduct an ensemble demonstrating knowledge and skills of music. Public performances and participation in local festival activities using music literature with a level of difficulty of 5 to 6 , on a scale of 1 to 6 , will be used as part of assessment.

## Guitar

Grade(s) 9-12
One credit/One year
Prerequisite(s): Instructor Permission and Audition
(Class size is limited)
This course will provide instruction in creating, performing, listening to, and analyzing music in addition to focusing on beginning instrument production while playing melodies and primary harmonizations. Public performances and participation in local festival activities will be used as part of assessment.

## DANCE

Admission to all dance courses is restricted by audition. All students must attend a placement audition after acceptance into the dance program. Credits earned in the Dance grouping may be used to satisfy the Fine Arts/Performing Arts requirement for a high school diploma and for college entrance requirements.

## Dance I

## Grade(s) 9-12

One credit/One year
Prerequisite(s): Instructor Permission and Audition
Students will work to develop higher order thinking skills through perceiving, analyzing, and making discriminating judgments about dance as they develop movement skills. Emphasis is placed on barre and center floor work. Public performances and participation in local activities will be used as part of assessment.

## Dance II

Grade(s) 10-12
One credit/One year
Prerequisite(s): Dance I and Instructor Permission
This course will provide additional instruction in ballet technique. Students examine the role and meaning of dance forms while developing analytical, creative, and critical thinking skills. Public performances and participation in local activities will be used as part of assessment.

## Dance III

Grade(s) 11-12
One credit/One year
Prerequisite(s): Dance II and Instructor Permission
Dance III is an introduction to modern dance techniques. This course focuses on proper skeletal alignment, body-part articulation, strength, flexibility, agility, and coordination in locomotor and nonlocomotor axial movements. Previous dance study is required. Public performances and participation in local activities will be used as part of assessment.

## Dance IV

Grade 12
One credit/One year
Prerequisite(s): Dance III and Instructor Permission
At this level the student is expected to perform with expression and technical accuracy a large and varied repertoire in a variety of styles, use choreographic principles, processes, and structures as a way to communicate meaning. Public performances and participation in activities with a level of difficulty of 5 or 6 , on a scale of 1 to 6 , will be used as part of assessment.

## THEATRE ARTS

Theatre Arts as a performing arts grouping, utilizes words and texts as a form of expression and communication. Students learn to analyze and evaluate the structure, plot, characterization, and language of plays in a historical/cultural context.
Students learn to express themselves by improvisation, acting, directing, playwriting and/or working behind the scenes of a theatrical production.

Credits earned in the Theatre Arts grouping may be used to satisfy the Fine Arts/Performing Arts requirement for college entrance.

## Theatre Arts I: Introduction to Performing Arts

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Introduction to Performing Arts introduces the student to other theatre courses. This course acquaints the student with all aspects of the theatre: imagination, acting, interpretation, competition, use of the voice, and career orientation.

## Theatre Arts I: Introduction to Theatre

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Students are involved in acting techniques, playwriting, directing and technology associated with theatre production. Students are responsible for writing and performing original scripts.
*The two introduction courses above provide the foundation for all other Theatre courses.

## Theatre Arts: Acting and Technology for Television/Film/Video

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
Acting and Technology for Television/Film/Video involves the student in a study of the various roles, concepts, and skills associated with creating television, radio, and film multi-media productions. Students are involved in all aspects of production including acting, scriptwriting, filming techniques, editing, digital technology, sound, lighting, and marketing.
Theatre Arts II: Acting for the Stage
Grade(s) 9-12
One credit/One year
Prerequisite(s) not required but preferred:
Introduction to Theatre or Introduction to Performing
Acting For The Stage is a course designed to teach students through performances the various techniques used in the creation and presentation of a character for the stage. Proper use of voice, the body, and other elements (costume, make-up, etc.) are explored. Students will learn the principles of writing scripts, acting, movement, and practical stage terminology during the first semester and will concentrate on performance quality during the second semester. Second semester students will also be required to assemble a portfolio (photo and/or video) for acting roles.

First semester students are engaged in individual and group projects leading to a greater understanding of essential components of television, video, and film production. Second semester students work in teams to produce high level, multi-media productions, such as documentaries, television episodes/shows, informational videos, etc. These students are also responsible for designing marketing strategies.

## Theatre Arts III: Technical Theatre

Grade(s) 9-12
One credit/One year
Prerequisite(s): not required but preferred: Introduction to Theatre or Introduction to Performing Arts

Theatre Arts 3 (Technical Theatre) introduces students to the technical aspects of the theatre. Students are involved in activities such as directing, staging, set design, costume design, sound technology, digital editing and lighting. The course can be taught in conjunction with the Play Production class to encourage a team effort.

## Theatre Arts IV: Play Production and Stagecraft

Grade(s) 10-12
One credit/One year
Prerequisite(s): two semesters of theatre and pre-enrollment approval by theatre instructor after an audition

Theatre Arts 4 (Play Production and Stagecraft) is an advanced level course for students who want a deeper knowledge of theatre. The first semester focuses on the fundamentals of playwriting, as students work on teams to write an original play. The second semester concentrates on producing an original play, which is a collaborative effort with other fine art groups at the school.

## Oral Interpretation of Literature

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Oral Interpretation of Literature includes the study of three basic forms of literature - prose, poetry, and drama. As students study elements of style, tone, character, and point of views they interpret dramatic works and create improvisational performances of original works.

## VISUAL ARTS

The Visual Art courses provide creative experiences in twodimensional and three-dimensional art production. Emphasis is placed on the integration of art production with art history, art criticism, and aesthetics to provide greater understanding of theory and skill application. Credits earned in the Visual Arts grouping may be used to satisfy the Fine Arts/Performing Arts requirement for college entrance.

## Visual Art I

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This is an introductory course in art. Basic elements and principals of art are learned through experiences in drawing, painting, visual communications, three-dimensional design, and environmental design. Art production is integrated with art history, art criticism, and aesthetics within each unit of study.

## Visual Art II

Grade(s) 10-12
One credit/One year
Prerequisite(s): Visual Art I and Portfolio Review
This course is a continuation of Visual Art I in greater depth and detail emphasizing strong foundations in theory and skill. Emphasis is placed on design as it relates to two-dimensional or threedimensional art forms. Art production is integrated with art history, art criticism, and aesthetics to build individual skills in observing, analyzing, and interpreting artworks. These skills are necessary for consumers as well as producers of art.

## Visual Art III

Grade(s) 10-12
One credit/One year
Prerequisite(s): Visual Art I and Portfolio Review
This course places emphasis on specialization in the area choices of the senior portfolio - drawing, 2-D design or 3-Dsculpture.Students may specialize in drawing, painting, photography; a combination of selected 2-D art forms; and/or visual communication relating to environmental design/digital design, 3-Ddesign or a combination of both.

Drawing and 2-D design involves work from direct observation (i.e., still life arrangements, figures, and landscapes). Environmental design encompasses areas such as interior design, fashion design, calligraphy, illustration, layout, and/or a variety of innovative multimedia techniques (i.e., video production, computer graphics, etc.).

## Visual Art IV

Grade(s) 10-12
One credit/One year
Prerequisite(s): Visual Art I and Portfolio Review
This course is designed for students with extensive art backgrounds and is aligned with AP course expectations. The course combines class assignments and independent study in selected studio areas. Among the areas from which the teacher may choose are the following: painting, drawing, graphics, three-dimensional design, visual communication, environmental design, architectural design, and innovative multi-media techniques (video production, computer graphic, etc.) Students are required to produce and present a portfolio accompanied by a written and oral presentation of their work.

## Art History

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course is designed as an introduction for all students who wish to have an understanding and appreciation for works of art. Previous art training is not required. Emphasis will be placed on instilling art awareness in both producers and consumers of art. Some basic studio art projects will be taught in relation to the art history lessons. This course is offered for one year. The first semester of this course provides a survey of world art from prehistoric times to the middle of
the eighteenth century. The second semester extends to the art of the present.

## Photography

Grade(s) 9-12
One credit/One year
Prerequisite(s): Approval by Instructor
Photography introduces students to fundamental procedures of using the camera, proper exposure of film, film processing, and printing.
Creative expression and art principles are emphasized in taking photographs. Second semester students experience photography as an art form and a means of communication. Second semester students should have a foundation in the fundamental procedures of using a camera. The curriculum is designed to teach the fundamentals of photography through digital processing or darkroom procedures.

## Visual Digital Design I

Honors Course Code No. 543599
Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course introduces students to art knowledge and skills applicable to applied art careers using the computer as a tool. Students will be involved in creating original designs in fashion, advertisement, environments (interiors/exteriors), typography, graphic illustrations, etc. This survey course introduces students to areas of study relating to graphic design, architectural design, and applied visual arts.

## Visual Digital Design II

Grade(s) 10-12
One credit/One year
Prerequisite(s): Visual Digital Design I
This course provides a continuum in art knowledge and skills applicable to graphic arts, architectural design, or applied visual arts. Students will be involved in advanced level design projects in advertisement, fashion, graphic illustration, animation, architectural design (interior/exterior), etc. Visual Digital Design II provides a foundation of concepts and skills that will prepare students for specialization in upper level courses or in post secondary design education.

## Visual Digital Design III

Grade(s) 10-12
One credit/One year
Prerequisite(s): Visual Digital Design I, Visual Digital Design II, or Visual Digital Design I and Portfolio Review

Visual Digital Design III provides a continuum in art knowledge and skills introduced in Visual Digital Design I and II. At this level, students will be allowed to choose their area of portfolio concentration from the following: Multi-Media Digital Design, Environmental/Three Dimensional Design, or Digital Visual Communication. The course requirements include an exit portfolio showing a quality progression of work, written documentary, oral presentation for final seminar, and webpage exhibit.

## Advanced Placement (AP) Studio Art - Drawing

Grade 10-12
One credit-One year
Prerequisite(s): Visual Art I and Portfolio Review
The Advanced Placement Studio Art Drawing course is designed for students with above average abilities and understandings in visual concerns and methods. The Drawing portfolio requires a student to demonstrate a depth of investigation and process of discovery in three areas of concern: (1) a sense of quality in the artwork; (2) concentration on a particular visual interest or problem; and (3) a need for breadth of experience in the formal, technical, and expressive means of the artist. In the Quality Section I, students are asked to submit five actual works that excel in concept, composition, and execution. In the Concentration Section II students are asked to submit twelve slides (some may be details) of a series of works organized around a compelling visual concept in drawing. The Breadth Section III requires students to submit twelve slides (one slide each of 12 different works) that demonstrate a variety of concepts, media and approaches. The works presented for evaluation may have been produced in art classes or on the student's own time and may cover a period of time longer than a single school year. Students submit their portfolios to the College Board for level 8 (AP) credit. Note: All students enrolled in an AP course are expected to take the course s AP exam.

## Advanced Placement (AP) Studio Art 2-D Design

Grade 10-12
One credit/One year
Prerequisite(s): Visual Art I and Portfolio Review
The Advanced Placement Studio Art 2-D Design course is designed for students with above average abilities and understandings in visual concerns and methods. The 2-D Design portfolio requires a student to demonstrate a depth of investigation and process of discovery in three areas of concern: (1) a sense of quality in the artwork; (2) concentration on a particular visual interest or problem; and (3) a need for breadth of experience in the formal, technical, and expressive means of the artist. In the Quality Section I, students are asked to submit five actual works that excel in concept, composition, and execution. In the Concentration Section II students are asked to submit twelve slides (some may be details) of a series of works organized around a compelling visual concept in 2-D Design. The Breadth Section III requires students to submit twelve slides (one slide each of 12 different works) that demonstrate a variety of concepts, media and approaches. The works presented for evaluation may have been produced in art classes or on the student's own time and may cover a period of time longer than a single school year. Students submit their portfolios to the College Board for level 8 (AP) credit. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement (AP) Studio Art 3-D Design

## Grade 10-12

One credit/One year
Prerequisite(s): Visual Art I and Portfolio Review
The Advanced Placement Studio Art 3-D Design course is designed for students with above average abilities and understandings in visual concerns and methods. The 3-D Design portfolio requires a student to demonstrate a depth of investigation and process of
discovery in three areas of concern: (1) a sense of quality in the artwork; (2) concentration on a particular visual interest or problem; and (3) a need for breadth of experience in the formal, technical, and expressive means of the artist. In the Quality Section I, students are asked to submit ten slides ( 2 views each of five works) that excel in concept, composition, and execution. In the Concentration Section Il students are asked to submit twelve slides (some may be details or second views) of a series of works organized around a compelling visual concept in 3-D Design. The Breadth Section III requires students to submit sixteen slides (two slides each of 8 different works) that demonstrate a variety of concepts, media and approaches. The works presented for evaluation may have been produced in art classes or on the student's own time and may cover a period of time longer than a single school year. Students submit their portfolios to the College Board for level 8 (AP) credit. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## Advanced Placement Art History

Grade(s) 11-12
One credit/One year
Prerequisite(s): Honors Art History
Advanced Placement History of Art is designed to provide the same benefits to secondary school students as those provided by an introductory college course in art history: an understanding and knowledge of architecture, sculpture, painting, and other art forms within diverse historical and cultural contexts. In the course, students examine major forms of artistic expression from the past and the present from a variety of cultures. They learn to look at works of art critically, with intelligence and sensitivity, and to analyze what they see. Note: All students enrolled in an AP course are expected to take the course's AP exam.

## American Art History

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course is designed as an introduction for all students who wish to have an understanding and appreciation for works of art. Previous art training is not required. Emphasis will be placed on instilling art awareness in both producers and consumers of art. Some basic studio art projects will be taught in relation to the art history lessons. This course is offered for one year. The first semester of this course provides a survey of world art from prehistoric times to the middle of the eighteenth century. The second semester extends to the art of the present.

## Dual Enrollment (EC) Art History

Grade(s) 11-12
Three semester hours College credit/ High School Credit
Prerequisite(s): College Admission Criteria
Dual Enrollment (EC) Art History is a one semester college -level course that exposes students to different areas of the visual arts which will include the study of the visual elements and the principles of design. The course will also cover a brief survey of the highlights of art from the Paleolithic period to modern times.

## PHYSICAL EDUCATION \& LIFETIME WELLNESS

Health, Physical Education, and Lifetime Wellness (HPELW) are vital components in the lifelong process of positive lifestyle management that seeks to integrate the emotional, social, intellectual, and physical dimensions of self for a longer, more productive, and higher quality of life.

## Lifetime Wellness

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
Lifetime Wellness is a new approach to the traditional physical education and health courses. This standards-based course focuses on the principles of lifetime wellness - a lifelong process of positive lifestyle management that seeks to integrate the emotional, social, intellectual and physical dimensions of self for a longer, more productive, and higher quality of life. Using the HPELW content standards, students will apply knowledge of the human body to make decisions-related to nutrition, substance use and abuse, sexuality and family life, safety and first aid, disease prevention and control, mental health, and personal fitness and related skills. In addition, students will develop a plan to maintain personal health and fitness and demonstrate individual development in fitness and psychomotor skills to promote lifelong physical activity. Students will be involved in physical activity for at least fifty percent of the time in this class.

## Physical Education I

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
This course provides daily activities in fitness and conditioning, individual and lifetime sports, including track and field, golf, tennis, dance, aerobics, bowling, table tennis, and team sports (basketball, softball, flag football, and volleyball).

## Physical Education - Advanced Team Sports

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Advanced Team Sports is designed for students who are interested in increasing their physical and cognitive skills in basketball, softball, flag football, soccer, and volleyball. Students learn techniques that will help them and make career choices in physical education/movement sciences. Daily fitness activities will also be a component of this course.

## Physical Education - Advanced Individual and Dual Sports

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
P. E. Advanced Individual and Dual Sports is designed for students who are interested in enhancing their skills in sports. This course focuses on refining skills in paddle and racket sports, track and field, golf, and bowling as students begin to select individual and lifetime sports for continuing fitness and recreation. Daily fitness activities will also be a component of this course.

## Physical Education - Fitness and Conditioning I

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
P. E. Fitness and Conditioning I focuses on recognizing and establishing behavioral factors leading to the development of total fitness. Assessing individual health related components of fitness and designing a personal fitness plan will be the focus. Emphasis will be placed on the concepts of physical fitness, nutrition, weight control, and aerobic/anaerobic activities.

## Physical Education - Fitness and Conditioning II

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): P. E. - Fitness and Conditioning I
P. E. Fitness and Conditioning II continues P. E. Fitness and Conditioning I with special emphasis on achieving goals established in the personal fitness plan. Concepts of physical fitness, nutrition, weight control, and aerobic/anaerobic activities will be further studied.

## First Responder

Grade Level- 9-12
Credit: 0.5
Prerequisite: None
Fitness Components Emphasized: Skill-related and
Maintenance/improvement fitness
The purpose of this course is to enable students to acquire a more than basic injury regarding prevention foundation training, safety, nutrition, and benefits of physical activity, boot-camp conditioning, first aid, wound dressing seizures and sport injuries. Each student must pass a written and performance CPR/AED test.

## Aquatics

Grade Level 9-12
Credit: 0.5
Prerequisite: None
This course is designed for students to receive Lifeguard and CPR training and certification. Students will be able to use this training in real-life situations, reduce the number of children who drown in public and private pools and provide at-risk students the opportunity to compete in competitive swimming. This course may be used as one of the cluster of elective courses for the Program of Study (POS) Human Performance or Athletic Management. This course will also be used to fulfill the . 5 Physical Education requirements for graduation.

Human Growth and Development Pacing Guide
Grade Level: 10-12
Credit: 1
Prerequisite: NONE
Health Components Emphasized: The student will demonstrate knowledge of and appreciation for the family in its many and varied forms as the primary source of identity and self-esteem for its members.

This course is a year long, co-educational, heterogeneously grouped academic class. It provides for an examination of the physical, cognitive, social, emotional and psychosexual components of human growth and development from birth to death. The course was designed to be a unique opportunity for serious consideration and discussion of human sexuality within the framework of the study of human development. Students receive information to help them acquire skills necessary to their future as individuals, family members and members of society. Central to the curriculum is the nine-week adolescence unit.

## Intro to Kinesiology

Grade Level: 9-12
Credit: 1
Prerequisite - Any grade 11 university or university/college preparation course in science

This course focuses on the student of human movement and systems factors and principles involved in human development. Students will learn about the effects of physical activity on health performance, the evolution of physical activity and sports, and the factors that influence an individual's participation in physical activity, the course prepares students for university programs in physical education, kinesiology, recreation, and sports administration.

## Weightlifting

Grade Level: 9-12
Credit: 0.5
Prerequisite: Individual Sports I
Fitness Components Emphasized: Skill-relate and
maintenance/improvement of health-relate components of fitness
The purpose of this course is to enable students to acquire a more than basic knowledge of how to achieve and maintain a level of physical fitness for health and performance while demonstrating knowledge of fitness concepts, principles, and strategies. Students will demonstrate knowledge of psychological and social concepts, principles, and strategies that apply to the learning and performance of weightlifting training. The content should include, but not be limited to the following: safety practices, rules, terminology, etiquette, mile run, circuit training, crossfit training circuit run, weight training, group stretching, jog/walk activities and form running.

## ROTC

## ARMY JUNIOR ROTC (AJROTC)

Army Junior Reserve Officers' Training Corps (AJROTC) is offered to students in the 9th through 12th grades. There is no military service obligation. The AJROTC program prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The program is a stimulus for promoting graduation from high school, and provides instruction and rewarding opportunities that benefit the student, community, and nation.

Each AJROTC unit is structured along the lines of an Army unit to develop student leadership at each grade level under the direct supervision of the instructors. The scope, focus, and content of the instruction is sequential; it reflects and builds on the previous year's curriculum. In addition to the emphasis placed on citizenship and leadership, the development of communication skills, the incorporation of historical perspectives, the requirement for competitiveness in physical fitness and military skills; the significance of service learning are emphasized. Students are guided by experienced leaders who help them develop self-awareness, confidence, the necessary skills to be good leaders and understand their potential.

All enrolled students are required to wear the Army JROTC uniform at least once a week as specified by the Senior Army Instructor. While wearing the uniform students must meet the Army's appearance and grooming standards. Any student who dislikes wearing the JROTC uniform and meeting the appearance/grooming standards should not enroll in the program. All students will be screened at the end of each school year and will only be readmitted to the program with the approval of the Senior Army Instructor.

Students completing three years of AJROTC may enter the active service at advanced pay grades, may receive advanced credit in Senior (college) ROTC and may enhance opportunities for scholarship or acceptance at one of the U.S. Service Academies. A fourth-year of AJROTC may be applied toward graduation requirements. Students who complete AJROTC 1 and AJROTC 2 may substitute these two years of AJROTC credit for the graduation requirement in Lifetime Wellness and Physical Education. Students who have completed three years of AJROTC will receive credit for the one-half unit in U.S. Government and Personal Finance required for graduation. Schools on block scheduling will offer AJROTC 5, 6, 7 , and 8.

With the approval of the Senior Army Instructor and Principal, honors courses are available for exceptional students at selected schools (Kingsbury and White Station). The AJROTC program's highly structured organization and chain-of-command is composed and operated by student cadet leaders. These student leaders are the focus group for the requested honors courses. Honors courses provide a greater challenge and cover more material at a faster pace than do standard courses.

Leadership Education and Training AJROTC 1
Grade(s) 9-12
One credit/One year
Prerequisite(s): None

This course includes Introduction to AJROTC, Leadership Theory and Application, Foundations of Success, Lifetime Wellness, Fitness, and First Aid, Geography and Earth Science, Citizenship and American History, Personal Finance, Service Learning, and U.S. Government. Safety and Physical Conditioning are included.

## Leadership Education and Training AJROTC 2

Grade(s) 10-12
One credit/One year
Prerequisite(s): Leadership Education and Training AJROTC 1
Approval of Senior Army Instructor and Principal
This course includes intermediate level of instruction in the subjects begun in the first year.

## Leadership Education and Training AJROTC 3

Grade(s) 11-12
One credit/One year
Prerequisite(s): Leadership Education and Training AJROTC 2
Approval of Senior Army Instructor and Principal
This course provides advanced-level instruction in the subjects taught in first and second year AJROTC. Emphasis is placed on how the various factors (communications, problem solving, decision making, planning and supervision) affect a cadets' effectiveness as a leader. Cadets are given increased opportunities to demonstrate leadership skills in the Cadet Battalion organization. In addition, cadets are exposed to opportunities available to them to enter the military as an officer, the steps that should be taken to apply/enroll in a college and how to obtain information about the various types of schools and colleges.

## Leadership Education and Training AJROTC 4

## Grade 12

One credit/One year
Prerequisite(s): Leadership Education and Training AJROTC 3 Approval of Senior Army Instructor and Principal

This advanced level of AJROTC caps three years of progression in every phase of AJROTC. Students selected for this course have demonstrated proficiency in Leadership Education and Training (LET) 3 and are presented with the challenge to study self-paced and to complete the exercises, case studies and vignettes in the programmed text. In addition, the students are taught techniques of command and staff procedures through text and practical exercises. Students demonstrate their ability to perform briefings and to prepare staff reports.

## Honors Leadership Education and Training AJROTC 2

Grade 10-12
One credit/One year
Prerequisite(s): Overall non-weighted GPA of 3.0; Completion of LET 1 with a GPA of 3.5 or higher; Assignment to a cadet leadership position; Approval of Senior Army Instructor and Principal.

AJROTC-2 honors course includes all the concept/content of the non-honors course description plus the following requirements and skills mastery.

Cadets are provided opportunities to demonstrate their leadership potential in a platoon/company leadership position. This course stresses the use of complex thinking skills in diverse situations so that they can demonstrate a variety of thinking processes, integrate new information with existing knowledge, and apply thinking skills appropriately. Cadets must demonstrate high competency in writing, speaking, and listening skills. Cadets will serve in a variety of leadership roles, facilitate groups, and respond to complex interrelationships. Cadets will demonstrate leadership in promoting the democratic principles of freedom, justice, and equality; and help lead service learning activities that promote the public good. Cadets will research the role of the Defense Department and U.S. Army in contemporary world affairs. Cadets will complete individual/group performance assessment projects in leadership, citizenship, career planning and technology. Additional skills mastery required in current events, methods of instruction, and the dynamics of democracy. Course content will include the study of selected AJROTC Category 2 and Category 3 electives to support and reinforce specific subjects

## Honors Leadership Education and Training AJROTC 3

Grade 11-12
One credit/One year
Prerequisite(s): Overall non-weighted GPA of 3.0; Successful completion of LET 2 Honors with a GPA of 3.5 or higher; Assignment to a cadet leadership position; Approval of Senior Army Instructor and Principal.

AJROTC-3 honors course includes all the concept/content of the non-honors course description plus the following requirements and skills mastery.

Cadets are provided opportunities to demonstrate their leadership potential in a company leadership position or battalion staff position. They will serve as cadet leaders, peer instructors, peer coaches, and peer counselors within the cadet battalion. Leadership concepts of problem solving, decision-making, planning, and supervising will be explored and demonstrated by the cadets. Cadets will demonstrate a high proficiency in teaching basic skills to junior cadets. Cadets will participate in a variety of debates on constitutional and contemporary issues. Cadets will study advanced citizenship and American history with a review of modern political and economic systems; local issues in the community and school; current issues before Congress; and a variety of discussion topics about citizenship and American history.

Students will write one major research paper per semester on a topic selected by the Senior Army Instructor. Additional skills mastery required in: extemporaneous speaking, principals and methods of instruction, developing lesson plans, and how to teach. Course
content will include the study of selected AJROTC category 3 electives to support and reinforce specific subjects.

## Honors Leadership Education and Training AJROTC 4

 Grade 12One credit/One year
Prerequisite(s): Overall non-weighted GPA of 3.0; Successful completion of LET 3 Honors with a GPA of 3.5 or higher; Assignment to a cadet leadership position; Approval of Senior Army Instructor and Principal.

AJROTC-4 honors course includes all the concept/content of the non-honors course description plus the following requirements and skills mastery.

Cadets are provided opportunities to demonstrate their leadership potential in a battalion command or staff position; deliver instruction; model responsible behavior as a mentor; build cross-cultural relationships; and lead service learning projects on school/community issues. Additional study and research of leadership responsibilities is required. Cadets will demonstrate a high mastery of oral and written communications. Cadets will manage the cadet Battalion physical fitness program. Cadets will complete selected portions of the Lions-Quest Program. Cadets will write one major research paper per semester on a topic selected by the Senior Army Instructor. Additional skill mastery required in: extemporaneous speaking, principles and methods of instruction, developing lesson plans, how to teach, and techniques of counseling. Course content will include the study of selected AJROTC Category 3 electives to support and reinforce specific subjects.

## AIR FORCE JUNIOR ROTC (AFJROTC)

Air Force Junior Reserve Officer Training Corps (AFJROTC) is offered to students fourteen years of age or older at Raleigh Egypt High School. There is no military service obligation for students enrolled in AFJROTC. Through leadership courses, management courses and practical leadership field experience, the AFJROTC program affords high school students opportunities to explore various leadership roles and styles while building appropriate attitudes of responsibility and obligations as American citizens. In addition to leadership, courses include instruction in Aerospace history, principles and theory of flight, and space exploration and technology and the Aerospace industry in both the civilian and military communities. The AFJROTC unit is structured similar to an operational Air Force unit with all staff functions performed by the students under the supervision of an Air Force Officer and a senior Air Force Non-Commissioned Officer. This practical experience, coupled with classroom activities helps the student refine his communicative skills and learn organizational skills in a nonthreatening environment. The AFJROTC program uses a building block approach with each successive year further developing the skills acquired in the previous year's course of study.

All enrolled students are required to wear the Air Force JROTC uniform at least once a week as specified by the Senior Army Instructor. While wearing the uniform students must meet the Air Force's appearance and grooming standards. Any student who dislikes wearing the JROTC uniform and meeting the appearance/grooming standards should not enroll in the program. All students will be screened at the end of each school year and will only
be readmitted to the program with the approval of the Senior Aerospace Science Instructor.

To promote team spirit and provide rewarding competitive experiences, AFJROTC has a select group of students who perform on the Drill Team and Color Guard and represent the school and AFJROTC at local and national competitions. Students who complete AFJROTC 1 and AFJROTC 2 may substitute these two years of AFJROTC credit for the graduation requirement in Lifetime Wellness. Students who have completed three years of AFJROTC will receive credit for the one-half unit in U . S . Government required for graduation. Students who have completed three years of AFJROTC may enter the service at advanced pay grades, may enhance acceptance for scholarships at colleges and universities as well as military academies.

Credit earned in Aerospace Science and Leadership Education 4 may be applied toward graduation.

Aerospace Science and Leadership Education I - AFJROTC 1
Grade(s) 9-12
One credit/One year
Prerequisite(s): None
The first year course is predominantly a historical perspective of the role of the military throughout the history of the United States with emphasis on aerospace developments and their influence on National Policy and objectives worldwide. In addition, the course provides leadership experiences that help to develop positive attitudes toward authority, responsibility, and self-discipline. There is also concentrated study on the history of the American flag and the customs and courtesies rendered to it.

## Aerospace Science and Leadership Education II - AFJROTC 2

Grade(s) 10-12
One credit/One year
Prerequisite(s): Completion of Aerospace Science and Leadership Education I AFJROTC 1
Approval of Aerospace Science Instructor and Principal
The second year course is a science course designed to acquaint the student with the aerospace environment, the principles of flight and navigation, and human limitations to flight. Leadership hours stress communications skills and leadership principles. The student is afforded opportunities to hold positions of greater responsibility in the planning and execution of cadet corps projects. Also, instruction is given in Lifetime Wellness.

Aerospace Science and Leadership Education III - AFJROTC 3
Grade(s) 11-12
One credit/One year
Prerequisite(s): Completion of Aerospace Science and Leadership Education II AFJROTC 2
Approval of Aerospace Science Instructor and Principal
This third year is a science course which discusses principles of propulsion systems, fundamentals of rocketry and its application to spacecraft, principles underlying space travel, and various management techniques and principles with emphasis on stress management, financial management, and managing others. In addition, the course covers systems of government and the
government of the United States. Also, instruction is given in Lifetime Wellness.

Aerospace Science and Leadership Education IV - AFJROTC 4 Grade 12<br>One credit/One year<br>Prerequisite(s): Completion of Aerospace Science and Leadership<br>\section*{Education III AFJROTC 3}<br>Approval of Aerospace Science Instructor and Principal

The fourth year curriculum consists of management of cadet corps. The cadets run the entire Corps during the fourth year. This handson experience affords the cadets the opportunity to put the theories of previous leadership courses into practice. The cadets practice their communications, decision-making, personal interaction, managerial, and organizational skills. The cadets are also challenged with a self-paced study program entitled, "Life After High School." This text covers areas such as selecting a career, life in the Air Force, and major principles of job search.

## NAVY JUNIOR ROTC (NJROTC)

Navy Junior Reserve Officer Training Corps (NJROTC) is offered to students in grades 9-12 at Millington Central High School. There is no military service obligation for students enrolled in NJROTC. NJROTC is a citizenship and leadership program based on a military model. The NJROTC program affords high school students opportunities to explore various leadership roles and styles while building appropriate attitudes of responsibility and obligations as American citizens. In addition to leadership, naval science courses include instruction in naval history, sea power, air power, meteorology, astronomy, financial management and cultural studies. The NJROTC unit is structured similar to an operational naval unit with all staff functions performed by the students under the supervision of a retired naval officer and two retired chief petty officers. This practical experience, coupled with classroom activities helps the student refine leadership and communication skills and learn organizational skills in a military like environment.

All enrolled students are required to wear the Navy JROTC uniform at least once a week as specified by the Senior Naval Science Instructor. While wearing the uniform students must meet the Navy's appearance and grooming standards. Any student who dislikes wearing the JROTC uniform and meeting the appearance/grooming standards should not enroll in the program. All students will be screened at the end of each school year and will only be readmitted to the program with the approval of the Senior Naval Science Instructor.

The NJROTC program uses a building block approach with each successive year further developing the skills acquired in the previous year's course of study. To promote team spirit and provide rewarding competitive experiences, NJROTC has a select group of students who perform on the Rifle Team, Academic Team, Drill Team and Color Guard and represent the school and NJROTC at local events. Students who complete NJROTC 1 and NJROTC 2 may substitute these two years of NJROTC credit for the graduation requirement in Lifetime Wellness. Students who have completed three years of NJROTC will receive credit for the graduation requirement in P.E. Students who have completed three or four years of NJROTC may enter military service at advanced pay grades and may enhance military and civilian college scholarship opportunities.

## Naval Science I - NJROTC 1

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
The purpose of this course is to introduce students to the precepts of citizenship, the elements of leadership, responsibility or one's actions and the value of scholarship in attaining life goals. This course is also designed to engender a sound appreciation for the heritage and traditions of America, and develop in each cadet a growing sense of pride in his/her organization, classmates, and self. Content includes: An introduction to the NJROTC program, its missions, goals and objectives, benefits of Career Planning, instruction in naval leadership and followership traits and principles, citizenship and responsibilities of citizens and the basis of our government and its role in today's society, the mission, and organization of the Navy in maintaining freedom of the seas, wellness, fitness, financial planning, close order drill, and proper uniform wear.

## Naval Science II - NJROTC 2

NJROTC 2
Grade(s) 10-12
One credit/One year
Prerequisite(s): Completion of Naval Science I NJROTC 1
The purpose of this course is designed to engender a sound appreciation for the heritage and traditions of America. In addition, students are allowed to develop their leadership skills with positions of leadership within the class. Content includes: Understand the importance of sea control and how sea power influenced the growth of Early Western Civilization, naval history and heritage from the American Revolution. In addition students will be introduced to other cultures through the introduction of the NJROTC Cultural Studies program. College preparatory writing is also introduced.

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Naval Science III - NJROTC 3
Grade(s) 11-12
One credit/One year
Prerequisite(s): Completion of Naval Science II NJROTC 2
Approval of Naval Science Instructor
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The purpose of this course is to further develop leadership skills through various classroom and organizational roles. Students develop an understanding of national security, naval operations and political structure of the United States. The Content includes: Career planning, importance of sound financial planning, and college and career opportunities. In addition, students learn the importance of understanding world events and how they affect our future. College preparatory writing is also included as is an introduction to career opportunities.

## Naval Science IV - NJROTC 4

Grade 12
One credit/One year
Prerequisite(s): Completion of Naval Science III NJROTC 3
Approval of Naval Science Instructor and Principal
The purpose of this course is to build on leadership qualities through unit leadership opportunities and leadership by example. Students take a more in-depth look at what leadership is, and how to maximize leadership abilities. Career and college
opportunities are researched and explored. Content includes: Leadership and ethics, positive leadership techniques, leading by example and the basics of effective communications. In addition, students are taught resume writing skills and interviewing techniques and pitfalls. In naval science 4, students are expected to undertake a leadership role within the overall NJROTC organization. In addition, naval science 4 students are expected to teach and lead in areas of close order drill and uniform inspections. The highest of overall student behavior is expected and required.

## DRIVER EDUCATION

Driver Education is an elective course offered to students 15 years of age or older. Emphasis is placed on defensive driving, using classroom theory, simulation, and actual hands-on experience with the automobile to acquaint students with maneuvers from the very basic to those used in the most complex traffic environment.

## Driver Education

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Driver Education Evening School/Summer is a course that is offered after the regular school day and in the summer months on a tuition basis. Although it is an elective course, the one-half unit credit can be used to fulfill graduation requirements. Possible reduction in automobile insurance is available upon successful completion.

## OUT OF SCHOOL EXPERIENCES Policy 5006

Out-of-school experiences are academic/instructional activities that take place away from the school premises (e.g., Service Learning, Junior Achievement, attending college workshops and college preparatory schools, and completion of a supervised occupational education program consisting of a specified number of hours). A maximum of two (2) units of credit may be earned by a student for out-of-school experiences during his/her high school career with no more than one (1) unit during a nine month school year. Out-ofschool experience credit can be earned only for activities occurring out of school; that is, before or after the school day or during the summer. All such credit must be counted in excess of the units required for graduation with no out-of-school experience substituting for any required course. No unit in out-of-school experience may be counted toward the total number of units required by the State for graduation.

Credit must be granted for out-of-school experiences in terms of the number of hours of instruction (i.e., 180 hours $=1$ unit of credit; 90 hours $=1 / 2$ unit of credit).

Students must submit requests for out-of-school experiences to the principal for approval by the Superintendent (or designee). Program proposals must be approved by the Superintendent/designee prior to student participation and prior to awarding credit for the experience. The program must be coordinated by a faculty member with specific, appropriate background. The program must be conducted at times other than the normal school day. Exceptions may be made upon the recommendation of the Superintendent.

Assurance must be made that there are no conflicts of interest for faculty or administrators. The student should receive no remuneration for participation in this program.

Assurance must be made that students who participate in out-ofschool experiences for credit must exhibit passing grades in all courses in school, acceptable attendance, and acceptable conduct. There must be no program of similar content available in the elective courses in the regular school program.

## Out-of-School Experiences for Credit

Grade(s) 9-12
One-half credit/One semester
One credit/One year
Prerequisite(s): None
This program allows students the opportunity to explore careers in fine arts (music, dance, drama), volunteer services, foreign language tutoring or foreign travel.

## INTERVENTION COURSES

Intervention courses are specifically designed to provide students with the opportunity to gain the necessary fundamentals, techniques, skills, and knowledge needed to enhance their ability in the subject areas of Algebra I, Biology, and English II/Grade 10, and Content Area Reading. These courses may be taken in conjunction with the regular course and students will earn elective credit only.

## Content Area Reading

(Elective Credit Only)
Grade(s) 9-12
One-half credit/One semester
One credit/One year
Prerequisite(s): None
Content Area Reading is designed to help students improve their ability to make meaning from text. Students will learn, practice, and internalize strategies that are essential lifelong skills for reading, writing, understanding, and interpreting content specific materials. The strategies will be applied in the content areas of English, mathematics, science, and social studies. Skills will include previewing and reviewing print and non-print material, activating prior knowledge, processing and acquiring new vocabulary, organizing information, understanding visual representations, self-monitoring, and reflecting. Content Area Reading is an elective course and does not satisfy the state requirement as one of the four English courses (English I, II, III, IV or AP English) required for graduation. A certified teacher of language arts, mathematics, science, or social studies must teach this course.

## SECTION III

## Course Descriptions for Students With Disabilities

NOTE: All courses listed are not offered at every school. Please check with school personnel to determine which courses are available.

## COURSES FOR STUDENTS WITH DISABILITIES

The mission of the Department of Exceptional Children is to ensure full educational opportunities through an Individualized plan of study. This study is specially designed to provide instruction and services for eligible children with disabilities, enabling such children to realize their potential for effective living and functioning in a diverse society. Programs for children with disabilities are designed to assist students with fulfilling the requirements of the individualized education plan (IEP). The IEP Team determines the plan of study and annual goals and objectives according to the individual needs of the student, schedule, and criteria for attainment. Student progress of objectives must be included in the IEP. Letter grades may be determined in conjunction with the modifications, criteria, and accommodations that are dictated by the IEP.

## Focused Plan of Study

Prior to the 9th grade, all students, (including those with disabilities) will develop an initial four-year plan of focused and purposeful high school study. The plan will be reviewed annually and will connect the student's academic and career goals to school.
a. When the student is in the eighth grade, the student, parent/ guardian, and faculty advisor or guidance counselor will jointly prepare an initial four-year plan of focused, purposeful high school study. For students who have IEP's this will be done in conjunction with the student's transition component of the IEP and will be reviewed annually. These two plans connect the student's academic, vocational and career goals to the individual transition needs of the student and his/her educational plan.

Prior to entering the ninth grade, student's academic history, career, interests, strengths and weaknesses, and educational assessments should be taken into consideration when developing the IEP and focused plan of study.
b. By the end of tenth grade, the student, parent/guardian(s) and school will focus the plan to ensure the completion of the program of study and a smooth transition to postsecondary study and work. An integral aspect of the planning process is the assumption that the student will be involved in some form of postsecondary education/training. The plan should contain information about career options and long-term goals supported by the plan through the courses to be taken in the eleventh and twelfth grades as well as courses to be taken at the postsecondary level.
c. The plan of study will be reviewed annually by the student and faculty advisor or guidance counselor, and revised based on changes in the student's interests and career goals. Results of various types of assessments will also be used in adjusting the plan of study.

## High School Exit Options for Students with Disabilities

The following policy will be effective beginning with the ninth grade class entering high school during the 2009-2010 school year.

All students will have access to a rigorous curriculum that includes challenging subject matter, emphasizes depth rather than breadth of coverage, emphasizes critical thinking and problem solving, and
promotes responsible citizenship and lifelong learning. The curriculum will be tied to the vision of the high school graduate and to the Tennessee Curriculum Standards. Teachers, parents, and students will hold high expectations for all. Schools will communicate high expectations to students to students, parents, business and industry, and the community.

The READY CORE curriculum consists of 4 units of English, 4 units of Mathematics, 3 units of Science, 3 units of Social Studies, 1.5 units of Health, Physical Fitness and Wellness, .5 units of Personal Finance, and 6 units of elective courses.

## Regular High School Diploma

To obtain a regular high school diploma, students with disabilities must meet the READY CORE requirements. Students must earn:

- the prescribed 22 credit minimum
- satisfactory record of attendance and discipline.

Students with disabilities are required to complete 4 units of mathematics including Algebra I and II, Geometry or the equivalent, and another mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year. The Bridge Match course is designed for students who have not scored 19 or higher on the ACT by the beginning of the senior year.

Students must complete Biology I, Chemistry or Physics, and a third lab science. Computer education is not specifically listed in the READY CORE curriculum. However, TCA 49-6-1010 requires every candidate for graduation have received a full year of computer education at some time during the candidate's educational career.

## TESTING REQUIREMENTS FOR STUDENTS WITH DISABILITIES

End-of-Course (EOC) examinations will be given in Algebra I and Algebra II, English I, II and III, U.S. History, Biology, and Chemistry if they are enrolled. End-of-Course examinations in these courses will count $25 \%$ of the student's semester grade. Students will not be required to pass any one examination, but instead students must achieve a passing score for the yearly grade in accordance with the State Board of Education's uniform grading policy.

## APBA Alternate Performance-Based Assessment

Students with disabilities will be included in the regular classes to the degree possible and with appropriate support and accommodations. Students failing to earn a yearly average of 70 in a course that has an End-of-Course test and whose disability adversely effects performance in that test will be allowed, through an approved process, to replace their End-of-Course assessment scores by demonstrating the state identified core knowledge and skills contained within that course through an alternative performancebased assessment. The necessity for an alternative performancebased assessment must be determined through the student's individualized education plan (IEP). The alternative performancebased assessment will be evaluated using a state approved rubric.

## High School Diploma: SWD Modified Credit Option

The State Department of Education has also allowed Students with Disabilities (SWD) the option to complete a "Modified Credit" math and science graduation option. This option enables a SWD to earn 4 credits in math and three credits in science. The SWD enrolled in this
program typically functions "below basic" on state and district assessments, and may be considerably behind their present grade level in academic achievement.

- This option will enable a SWD the opportunity to earn a regular HS diploma, gain employment and/or complete post secondary admission requirements to a community college, technical or vocational program after high school.
- This option will not allow them to gain admission requirements to a four year university.
- This option is discussed during the IEP process beginning when the SWD enters the 9th grade.

SWD must complete the requirements of Algebra IA and Unified Geometry $1+$ and will earn 4 math credits. The courses needed for this option are Algebra IA and Algebra IB (EOC), or Algebra I+ (S1), Algebra I+ (S2) EOC, and Unified Geometry IA and Unified Geometry IB, or Unified Geometry $1+(\mathrm{S} 1)$, and Unified Geometry $1+$ (S2) EOC.

If a student passes both semesters of Algebra 1+ and Unified Geometry $1+$, they will earn 4 math credits required for graduation under this Modified Credit option. If a SWD completes the modified credit option before their senior year, they must enroll in an additional math course every year.

SWD may earn 1 credit for Lab Science and 2 credits for Biology I to meet their science requirement. They will enroll in Biology IA and Biology IB or Biology I+ (S1), and Biology I+ (2) EOC.


## COURSES

Students with disabilities who are on the diploma track are enrolled in the general curriculum. Students will receive services from a special education teacher and a regular education teacher using the inclusion model. Students will receive accommodations and supports as stated on the student's IEP.

## RESOURCE LEARNING LABS

Learning Labs are offered to provide opportunity for remediation, academic assistance, and small group instruction. Additionally, teachers will offer guidance in self advocacy, complete career and academic assessments, teach study skills, time management, work study habits, career exploration, and increase student time on computer based remediation programs. Credits are not awarded for Learning Labs.

## Resource/Self-Contained Courses

Schools that have special education teachers who are certified or endorsed in the core subject areas may teach these resource courses and award core and/or elective credits.

These courses may be offered as a traditional one period class for an entire year.

Algebra IA and IB (Special Education)

- Algebra IA (SE) One elective credit that counts towards math modified credit option
- Algebra IB (SE) One Algebra I credit

Geometry A and B (Special Education)

- Geometry A (SE) One elective credit that counts towards math modified credit option
- Geometry B (SE) One Unified Geometry credit

Biology $A$ and $B$ (Special Education)

- Biology A (SE) One elective credit that counts towards science modified credit option
- Biology B (SE) One Biology I credit

English I, II, III, IV (Special Education)

- English I (SE) One English credit
- English II (SE) One English credit
- English III (SE) One English credit
- English IV (SE) One English credit

Learning Lab - 0 credit

## Comprehensive Program 9-12

The comprehensive program consists of courses necessary for students with severe disabilities who will obtain an IEP certificate and who will be assessed using the TCAP ALT Portfolio. The students are usually those enrolled in Functional Skills (CDC Moderate), Adaptive Functional Skills (MH), and Behavioral Intervention Communication Class (SBCD) and Adaptive Skills programs.

## Comprehensive Independent Living Skills

Grade 9-12
Instruction provided for participation in Community Based Instruction, career exploration, job sampling activities and school based enterprise. This course provides students minimum skills necessary to live in a diverse society.

## Comprehensive Communication Skills

Grade 9-12
This course is designed to teach communication skills necessary in the areas of personal life, family life, community, and the workplace. Communication Skills includes decision making, problem solving, and workplace readiness skills. Students will complete job applications/interviews/display appropriate work behaviors and peer interactions. Students will practice self-advocacy skills and compile a transition portfolio.

## Comprehensive Recreation and Leisure

## Grade 9-12

This course teaches how to identify personal interest activities that can be used to develop an individual recreation and leisure program. Students will learn about hobbies, clubs, and organizations that assist persons with disabilities in the community.

## Comprehensive English/Language

## Grade 9-12

Comprehensive English explores basic reading, grammar, and organizational skills necessary for daily living, employment, and personal communication. SPED teacher will be responsible for Reading, Writing and Elements of Language portion of the TCAP Portfolio in their third year of high school.

## Comprehensive Science/Home Living Skills

## Grade 9-12

Skills taught: Cooking, laundry, housekeeping, meal planning, nutrition, health, and hygiene. Focus on Life Science issues such as recycling, environmental pollution and ecology are included. SPED teacher will be responsible for Science portion of the TCAP Portfolio in their second year of high school.

## Comprehensive Social Studies/Vocational Skills

## Grade 9-12

Comprehensive Social Studies explores personal qualities needed for career exploration preparation and employment, as well as developing skills in understanding the role of local, state and federal government functions, voter rights, Tennessee history, economics, and current events.

## Comprehensive Mathematics/Life Skills

Grade 9-12
This course teaches understanding of numbers and operations, algebra, geometry measurement, and data analysis. Activities include representing numbers, money math, telling time, units of measurement, calendar skills, sorting and categorizing items, reading charts and graphs, and the use of methods to collect, organize, and display data. SPED teacher will be responsible for Math portion of the TCAP Portfolio in their first year of high school.

## Comprehensive Adaptive PE

Grade 9-12
This course encourages the student to be an active participant In developing lifelong healthy habits. The students will participate in exercise, games, and activities that promote physical fitness.

## Comprehensive Reading

## Grade 9-12

Students will demonstrate knowledge of print materials, develop oral language and listening skills, develop and maintain phonemic awareness and decoding strategies, and develop and extend reading vocabulary.

## Coop Work/Work Based Learning Program

Grade 12
Prerequisite(s): None
This class connects classroom learning to work experiences. Credits are awarded in the appropriate related special education class in which the student is enrolled. The student must be supervised by a work based learning certified special education teacher and complete all work based learning components. The student must be employed for pay and may leave campus to attend work for one class period ( 1.5 hours) at the end of the school day.

## WORK-BASED LEARNING PROGRAMS

Coop Work/Learning Program
Grade 12
Prerequisite(s): None
This course allows a student to be enrolled in a Work-Based Learning class and to work off campus for up to three hours per day. This class connects classroom learning to work experiences. The
student must be supervised by a Work-based learning certified SPED teacher and complete all WBL components.

## Service Learning

Grade 9-12
One credit/One year
Prerequisite(s): None
This course provides structured school-based opportunities for reflection on service experiences and academic learning. Students learn the benefits of personal satisfaction, civil responsibilities and community needs.

## SECTION IV

## Online <br> Course Descriptions

## ONLINE COURSES

## Course Assessment and Participation Requirements

Besides engaging students in challenging curriculum, the course guides students to reflect on their learning and to evaluate their progress through a variety of assessments. Assessments can be in the form of self-checks, practice lessons, multiple choice questions, writing assignments, peer review, projects, research papers, essays, oral assessments, and discussions. Instructors evaluate progress and provide interventions through the variety of assessments built into a course, as well as through contact with the student in other venues.

## ENGLISH LANGUAGE ARTS

## Online English I

Grade(s): 9-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): 8th grade Language Arts
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
Books, short stories, poems and plays convey messages and feelings that make them great. In this course, you will learn how to look for the message. You will learn how to trust your feelings about that message. And you will learn how to express clearly and convincingly what you think. The purpose of this course is to give you the tools to see and hear with real understanding, and to communicate with real conviction.

## Online English II

Grade(s): 10-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Recommended English I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In this course, you will sample some storylines. You will also get to create some dreams and stories of your own. In addition to evaluating the plot and characters of well-known writers, you will learn to identify themes, create dialogue, and appeal to emotions. You will study various forms of communication including: oral, visual, electronic and textual. You will also develop your own ability to communicate dreams and aspirations with conviction. Great authors have something to say and the ability to say it well. This course will show you how they do it, and will invite you to do the same.

## Online English III

Grade(s) 10-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): English I and English II
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In English III, the writing and insights of authors throughout our history are collected in the fast-paced pages of The Virtual Times. You'll gain an appreciation of American literature and the ways it
reflects the times in which it was written. You'll discover how people thought and lived and wrote about their experiences. You'll also be asked to observe, investigate and report on stories of today. The goal is to be thorough, accurate and compelling in your writing. Perhaps in times to come, people will want to read what you thought and wrote.

## Online English IV

Grade(s): 11-12
One credit/Two semesters OR One-half credit/Semester 1 only/Semester 2 only
Prerequisite(s): Recommended English I, II, III
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In this course you will be asked to choose the literature that interests you, analyze the subject matter as it is presented, and persuasively express your own ideas. Every genre of literature has its own conventions for expressing emotions, perceptions, information and biases. You will develop the tools to critically analyze what is being said, and share your insights with others. As high school seniors, what you choose and what you say becomes very important. The purpose of this course is to provide you with doors to open, ideas to experience, and opportunities to effectively express what you think.

## Online Journalism

Grade(s): 9-12
One-half credit/One semester
Prerequisite(s): None
Estimated Completion Time:
In this course, you will explore the history of journalism in the United States from its inception in the colonies and its key role in the first amendment, all the way up to present day issues regarding "right to know" and the changing landscape of journalistic media in the 21st century. You will acquire the skills and information needed to actively participate in the consumption, analysis, and creation of news media and will have the opportunity to investigate the constantly evolving career opportunities within the field of journalism.

## Online Creative Writing

Grade(s): 9-12
One credit/Two semesters
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
In this course, you will explore a range of creative writing genres, including fiction, poetry, creative nonfiction, drama, and multimedia writing. You will study examples of writing through classic and contemporary selections and will apply that knowledge and understanding to their writing. In addition, you will develop an intimate understanding of the writing process and its application to various projects. As you move through the course, they will understand and evaluate the writings of others, and be able to apply the evaluation criteria to their own writing. By the end of the course, you will have created a well-developed portfolio of finished written works.

## MATHEMATICS

You will love this hands-on math course. The truth is, this course could easily become your favorite class ever. You will soon be waiting for your next opportunity to move to the next screen. The satisfaction you will gain in knowing that you truly understand higher level concepts such as systems of equations and central tendencies, will create a new you

## Online Algebra I-A

Grade(s) 8-12
One credit/Two semesters
Prerequisite(s): Student should be in 8th grade or higher.
Course will count as an elective credit only.
Estimated Completion Time: 18-32 Weeks
This course will review some of the fundamental math skills you learned in middle school, and then get you up to speed on the basic concepts of algebra. Each module takes you step-by-step into the world of integers, equations, graphs and data analysis. You'll work at your own pace until the numbers come out right. This course connects algebra to the real world. It also demystifies algebra, making it easier to understand and master. The goal is to create a foundation in math that will stay with you throughout high school.

## Online Algebra I

Grade(s) 9-12
One credit/Two semesters OR One-half credit/Semester 1 only/Semester 2 only
Prerequisite(s): Successful completion of 8th grade mathematics Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
This course is designed to give you the skills and strategies for solving all kinds of mathematical problems. It will also give you the confidence that you can handle everything that high school math has in store for you.

## Online Algebra II

Grade(s) 11-12
Credit(s): One credit/Two semesters OR One-half credit/Semester 1 only/Semester 2 only
Prerequisite(s): Algebra I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In this course, you'll know for certain where you are going. As an employee of the Functional Consulting Company, you'll travel up the corporate ladder as you succeed with each assignment. You'll go from Junior Associate to Senior Staff Member as you prove what you can do. Starting with a review of basic algebra, you roll through polynomials, quadratic equations, exponential and logarithmic relations, and arrive at probability and statistics. Algebra II is an advanced course using hands-on activities, applications, group interactions, and the latest technology. You'll have the algebra you need for college admission, and be on a fast track to career success.

## Online Unified Geometry

Grade(s) 9-12
One credit/Two semesters OR One-half credit/Semester 1 only/Semester 2 only
Prerequisite(s): Algebra I or its equivalent
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
Geometry is everywhere, not just in pyramids. Engineers use geometry to bank highways and build bridges. Artists use geometry to create perspective in their paintings, and mapmakers help travelers find things using the points located on a geometric grid. Throughout this course, we'll take you on a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving. This course is all about points, lines and planes. Just as importantly, this course is about acquiring a basic tool for understanding and manipulating the real world around you.

## Online Pre-Calculus

Grade(s): 9-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Algebra 1, Algebra 2, and Geometry
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
The purpose of this course is to study functions and develop skills necessary for the study of calculus. This course includes algebra, analytical geometry, and trigonometry.

## Online Calculus

Grade(s): 9-12
One credit/Two semesters
Prerequisite(s): Algebra I, Geometry, Algebra II, Pre-Calculus or Trigonometry/Analytical Geometry.
Estimated Completion Time: 18-32 Weeks
This course includes a study of limits, continuity, differentiation, and integration of algebraic, trigonometric and transcendental functions, and the applications of derivatives and integrals.

## SCIENCE

## Online Physical Science

Grade(s) 8-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Algebra I.
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
This course stimulates your brain cells and causes you to think like a scientist. Through the use of websites, videos, software, and your own lab investigations you'll gain a deeper understanding of the world around you. You will also have a greater appreciation for science and its significance in our lives.

## Online Biology

Grade(s) 10-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.

This is a course with real relevance. It's all about the living things on this planet, and the way they connect together. In this course, the BioVenture Travel Agency will send you on tours like Safari Quest, Classification Cruise, Genetic Park Excursion, and on an all-expense-paid trip to the Egyptian pyramids. You'll also perform a series of lab experiments right in your own home. Modern technology offers us many choices for manipulating and observing biological processes. The more we know about the science of biology the better.

## Online Chemistry

## Grade(s) 10-12

One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Successful completion of Algebra I.
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.

The purpose of this course is to reveal the basic ways in which chemistry works, and how scientists are using chemistry to make our lives better. You will also do your own laboratory investigations. You will think like a scientist, and understand why even some very small things can make a very big difference.

## Online Physics

Grade(s) 11-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Algebra I (Algebra II Recommended)
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In each "Physics World" module, you'll discover the contributions of geniuses like Galileo, Newton and Einstein. In their work, you'll learn the concepts, theories and laws that govern the interaction of matter, energy and forces. From tiny atoms to galaxies with millions of stars, the universal laws of physics are there for you to observe and apply. Using laboratory activities, videos, software, and websites, you'll follow in the footsteps of some of the world's greatest thinkers. This is a serious course that will make you think. It will also make you appreciate the beauty and importance of the science that governs our lives.

## Online Environmental Science

Grade(s) 10-12
One credit/Two semesters OR One-half credit/Semester 1
only/Semester 2 only
Prerequisite(s): Algebra I and two-years of high-school Science, with labs.
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.

The goal of this course is to provide you with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world and to identify and analyze environmental problems that are natural and human-made. You will evaluate the relative risks associated with these problems and examine alternative solutions for resolving or preventing problems.

## Online Design for Manufacturing*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into
East High STEM program.
Estimated Completion Time: 18-32 Weeks
Design for Manufacturing teaches general manufacturing techniques. Calculations and analysis tools are used to design and redesign student's concepts. This course applies and integrates ideas that have been generated in other courses and generates life size models and prototypes. Industry standard software and machinery are used to manufacture student's ideas with verification programs to determine the ability for a plan to be mass produced. Certification will advance students toward continuing education and career opportunities in the fields of engineering, design and machine operation.

## Online Engineering Technology*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into East High STEM program.
Estimated Completion Time: 18-32 Weeks
This STEM course makes a contribution to the curriculum by providing opportunities for students and teachers to link content together and apply it to solve problems. More and more jobs demand advanced skills, requiring that people be able to learn, reason, think creatively, make decisions, and solve problems. An understanding of science, technology, engineering and math and their methods contribute in an essential way to these skills. Principles of Engineering is a team based advanced course designed for most students. Students who complete this course will engage in real world case studies and learning activities that focus on the engineering process and making the world a better place to live and work in.

## Online Foundations in Biotechnology*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into
East High STEM program.
Estimated Completion Time: 18-32 Weeks
This STEM based course explores the world of biotechnology including the basics of microbiology, bio-processing, generic engineering, and biotechnology careers as well as examining the role of biotechnology in the medical field. Bioengineering and forensics and food biotechnology are also topics students will explore. This course is a hands-on, experiment based experience that will keep students interested with exciting lab based learning.

## Online Sustainable Methods*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into
East High STEM program
Estimated Completion Time: 18-32 Weeks
This course is a general introduction to sustainability and renewable energy. Often as individuals we do not understand the impact of simple choices we make every day. This course will attempt to offer insight into these and other decisions we make. Major topics in this STEM based course are food, shelter, water, air, energy, waste, transportation and consumerism. Also included will be a study of the -101 things we all need to know-. The investigation of these topics will be at the global, national, local and personal levels.

## Online Materials Science*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into
East High STEM program
Estimated Completion Time: 18-32 Weeks
This course appeals to a wide range of students with its unique combination of science, ingenuity, creativity, and exciting hands-on labs. Material Science uses a multidisciplinary approach to science and technology. Students learn about materials, material uses and applications, scientific theories, and practical experiences that prepare them to work in a technologically-rich environment. The basic principles of physics, chemistry and biology are used in the study of materials.

## Online Intro to Engineering*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into East High STEM program.
Estimated Completion Time: 18-32 Weeks
This STEM course is a basic introduction to engineering for all students. Students who complete this course will learn the concepts necessary in order to develop their ideas into solutions that will improve our lives. Exciting hands-on learning activities like data comparison of heart rates, rating consumer products, destructive testing and 3D solid modeling apply math, science, history and English content from other courses in a STEM experience.

## Online Principles of Engineering*

Grade(s) 10-12
One credit/Two semesters
Prerequisite(s): Successful completion of Algebra I. Acceptance into
East High STEM program.
Estimated Completion Time: 18-32 Weeks
This STEM course makes a contribution to the curriculum by providing opportunities for students and teachers to link content together and apply it to solve problems. More and more jobs demand advanced skills, requiring that people be able to learn, reason, think creatively, make decisions, and solve problems. An understanding of science, technology, engineering and math and their methods
contribute in an essential way to these skills. Principles of Engineering is a team based advanced course designed for most students. Students who complete this course will engage in real world case studies and learning activities that focus on the engineering process and making the world a better place to live and work in.

## SOCIAL STUDIES

## Online World Geography

Grade(s) 9-12
One credit/Two semesters
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
If you wanted to represent the entire world and its people in one theme park, what would your park look like? That is what you'll find out as you design your own Global Village Theme Park. This is a big project, and you'll want your park visitors to have a good time. To do the job right you'll need a solid knowledge of geography. You'll start your project by going on a global fact-finding mission. Your mission will include Europe, the Middle East, Asia, North and South America, and the countries around the Pacific Rim. You'll research the cultural and natural landscapes of the regions you visit. Then you'll design your own theme park offering a multicultural understanding of our world's diverse people and places. As modern communications and transportation bring our world closer together, your knowledge of geography becomes more important. This course will take you to places around the world for a first-hand look.

## Online World History

Grade(s) 8-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - One-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors.
In this course, you will have the job of curator of the Windows of the World Museum. You'll also have the job of creating exhibits that tell the story of our ancestors. Artifacts are evidence of human activity. These activities relate to endeavors such as art, commerce, politics, religion, and science. Your exhibits will highlight these activities. You will show how these activities define a stream of ideas and events that flows from the past to the present, and lights the way to the future. Great moments in history happened in all parts of the globe. You and the people who view your exhibits will have window seats that look out on many great stories.

## Online U. S. History

Grade(s) 11-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
Equally important, this course will challenge you to apply your knowledge and perspective of history to interpret the events of today.

The questions raised by history are endlessly fascinating. We look forward to your participation in the debate.

## Online Economics

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
This course is also available as Honors
The purpose of this course is to help you become a more informed consumer, producer, investor and taxpayer. Your choices will directly affect your future, regardless of the city in which you live.

## Online Personal Finance

Grade(s) 9-12
One credit/Two semesters
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing.

## Online Psychology

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
This course is also available as Honors
In this course you will learn more about yourself and others including how to break a habit and how to cope with stress. The purpose of this course is to introduce you to the psychological facts, principles, and phenomena associated with each of the subfields within psychology.

## Online U.S. Government

Grade(s) 10-12
One-half credit/One semester
Prerequisite(s): None
Estimated Completion Time: 16-18 Weeks
This course is also available as Honors
The purpose of this course is to help you become an informed and active citizen. In part, the Constitution asserts that, "Governments are instituted among Men, deriving their just Powers from the Consent of the Governed." Make yours an informed consent.

## Online Global Studies

Grade(s) 9-12
One credit/Two semesters
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks

In this course, all the stories are big stories. Human rights, the environment, global security, and international economic systems are all part of your beat. The stories also have real human interest because they deal with peoples' customs, cultures, and how they interact. Your job will be to research the facts, and present them with clarity and context. Your job will also involve identifying real global problems, and then suggesting well-developed solutions. This is a course that makes you think. The stories are current and compelling. They need to be told, and the right person to tell them is you

## WORLD LANGUAGE

## Online French I

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
The goal of this course is to give you basic listening, speaking, reading, and writing skills through activities based on pedagogically proven methods of foreign language instruction. Throughout the five units of material - Greetings, Calendar, Weather, Time and Colors you learn to talk about themselves and other, describe their surroundings and use numbers for dates and time. Regular verbs are introduced in the present tense.

## Online French II

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester 2 only - one-half credit
Prerequisite(s): French I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
This course is a continuation of a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the five units of material (Daily Routine, Animals, Hobbies, The Body and Descriptions), students learn to express themselves using an ever increasing vocabulary, present-tense verbs, articles, and adjectives. Grade(s) 9-12

## Online Japanese I

Credit(s): One credit/Two semesters OR Semester 1 only / Semester 2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you will learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the five units of material (Greetings, The date, Time, Colors and Places), you learn to express yourself using an ever increasing vocabulary, present-form verbs, particles, and adjectives.

## Online Japanese II

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): Japanese I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you will learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the ten units of material (Daily Life, Animals, Activities, The Body, Descriptions, House, Shopping, Entertainment, Spare Time and Travel), students learn to express themselves using an ever increasing vocabulary, present-tense verbs and adjectives.

## Online Latin I

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you'll find out for yourself as you take your first steps on a lifelong journey of discovery. The purpose of this course is to give you a foundation in Latin grammar and vocabulary. This course will also acquaint you with Olympic gods and with the everyday life of the Roman man-in-the-street. It will set your feet on a journey as big as your imagination, with a passport to some of the world's most exciting places.

## Online Latin II

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester 2 only - one-half credit
Prerequisite(s): Latin I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you'll build on your knowledge of Latin grammar and vocabulary. In the process, you'll sense the beauty of the language and the passion of those who spoke it. Roman engineering, art, commerce and system of laws were all supported by a clear, expressive and flexible language - a language in which you will be able to communicate. This course will give you a solid grounding in the structure of the language. It will also give you a clear lens for looking into the heart and majesty of the Roman spirit.

## Online Mandarin Chinese I

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
This is a beginning level course that will introduce the student to a variety of areas of Mandarin Chinese (Simplified). In this course, the student will learn listening, speaking, reading and writing skills
through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the five units of material (Introduction to Chinese, Greetings, Calendar, Weather, and Time), students learn to express themselves using an ever increasing vocabulary.

## Online Mandarin Chinese II

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): Mandarin Chinese I
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
This course is a continuation of a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the five units of material (Daily Routine, Animals, Hobbies, The Body and Descriptions), students learn to express themselves using an ever increasing vocabulary, present-tense verbs, articles, and adjectives.

## Online Spanish I

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester 2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you will learn to ask for directions, order food in a restaurant, and talk about the weather, all without being embarrassed by your accent. New words and phrases will be introduced with text, pictures, and an audio clip that demonstrates proper pronunciation. You will acquire the skills to read, write and speak. You will also learn the basic Spanish grammar that will make your sentences come out right. Don't leave home without Spanish I. This course will give you the ability to enjoy your trip to Spain, and to soak up some of the local culture while you are there.

## Online Spanish II

Grade(s) 10-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester 2 only - one-half credit
Prerequisite(s): Successful completion of Spanish I.
Estimated Completion Time: 18-32 Weeks
This course is also available as Honors
In this course, you'll broaden your Spanish vocabulary and your knowledge of grammar. You'll meet people from many different countries and cultures. While waiting for your plane ride home, you'll also meet some Spanish-speaking people from different parts of the United States. The purpose of this course is to strengthen your Spanish listening, speaking, reading and writing skills. You'll also experience the beauty and expressiveness of a language that is shared by different people and cultures throughout the world.

## FINE ARTS

## Online Art History

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
In this course, you will be introduced to the various forms of the visual arts, such as painting, sculpture, film, and more. You will learn how to look at a work of art, identify and compare key characteristics in artworks, and understand the role art has played throughout history. Through hands-on activities, virtual museum tours, discussion, and research, learners will develop an overall appreciation for the art they encounter in their daily lives.

## Online Photography

Grade(s) 9-12
Credit(s): one-half credit
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
In this course, you will learn the basics of photographic composition and lighting, the basics of using a digital camera and the basics of preparing a digital darkroom. Students will also learn basic color theory and the fundamentals of image processing.

## Online Music Appreciation

Grade(s) 9-12
Credit(s): one-half credit
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
In this course, you are introduced to the elements, instrumentation, and historical periods of music. You will learn the significance of surroundings and time periods and how they both influenced the music of the day. You will listen to and evaluate several types of music, and will be assessed through projects, presentations, and exams on the knowledge and understanding of music.

## COMPUTER TECHNOLOGY

## Online Accounting I

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
In this course, you are introduced to concepts and principles based on a double-entry system of maintaining the electronic and manual financial records for a sole proprietorship, a partnership, and a corporation. It includes analyzing business transactions, journalizing, posting, and preparing worksheets and financial statements.

## Online Computer Applications

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
The purpose of this course is to guide you in building your career foundation. You will learn how to turn your computer into an effective tool for communication. You will learn how to create positive working relationships and acquire the kinds of essential business skills needed for any successful career.

## Online Computer Technology

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course is designed to develop computer technology skills. You will use a variety of computer software /hardware tools and features of an electronic information network. You will explore the historical, social, and ethical issues of using computer technology. You will develop skills that will assist with efficient production; accurate production analysis; management of information and design; and presentation of a multimedia project.

## Online Entrepreneurship

Grade(s) 9-12
Credit(s): one-half credit
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
In this course, you will learn about how to move through the course and switch between windows; finding files and folders on a computer; how to set up your Web browser; how to download and install a zip utility; zipping and unzipping files and folders; and other specific skills necessary to complete the course.

## Online Middle School Keyboarding

Grade(s): 6-8
One credit/Two semesters
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
This course will give you the coaching needed to become a keyboarding master. With special downloadable software, your fingers will learn to fly. You'll learn what all the keys do, how to find them in an instant, and how to concentrate on the important stuff creating the message you want to communicate. You'll also learn about the importance of keyboarding for your future career, and the kind of careers that might be right for you.

## Online Web Design Applications

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
In this course, you'll become a Web Design Intern for a virtual company called Education Designs. You'll learn what goes on under the hood including: Internet basics, HTML, and the file structure of a well-organized web site. You'll learn how to create visually interesting web pages with clear text, complimentary colors, visual assets, and appealing designs. You'll also learn how to navigate the Internet to fill your website with useful and well-researched information.

## Online Web Design Essentials

Grade(s) 9-12
Credit(s): One credit/Two semesters OR Semester 1 only / Semester
2 only - one-half credit
Prerequisite(s): None
Estimated Completion Time: 18-32 Weeks
In this course, you'll become a Web Design Intern for a virtual company called Education Designs. You'll learn what goes on under the hood including: Internet basics, HTML, and the file structure of a well-organized web site. You'll learn how to create visually interesting web pages with clear text, complimentary colors, visual assets, and appealing designs. You'll also learn how to navigate the Internet to fill your website with useful and well-researched information.

## Online Driver's Education

Grade(s) 9-12
Credit(s): one-half credit
Prerequisite(s): None
Estimated Completion Time: 9-18 Weeks
This course will introduce students to driving and the responsibilities that go along with it. The course emphasizes Traffic Safety Education. The student will learn how driver education and driver's licensing programs can help him/her become a responsible, low-risk driver.

## SECTION V

## Careers and Technology Education Course Descriptions

## CAREER AND TECHNICAL EDUCATION

Career and Technical Education Programs offer courses in numerous Programs of Study within Career Cluster areas. Students should select the Career Cluster in the appropriate program area to meet their career objective(s). In most instances, the term "vocational" has been replaced with CTE (Career and Technical Education) which more clearly encompasses the expansive curriculum content of the CTE courses.

The length of courses may vary. It is helpful if the following guidelines are understood:

- Courses are offered in blocks of time with a minimum and a maximum credit in any one-course sequence as follows:

| Hours of <br> Time | Semester | Credit <br> Granted | Year | Credit <br> Granted |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | $1 / 2$ | 1 | 1 |
| 2 | 1 | 1 | 1 | 2 |
| 3 | 1 | $11 / 2$ | 1 | 3 |

- A technical focus is defined as a minimum of four units of credit in a sequential and focused CTE program of study or a minimum of three units of credit in a sequential and focused CTE program of study with one additional unit in a related CTE course. Life Connections and Exploring Technology may be combined with any Careers and Technology Cluster Area. However, there are other CTE courses that may be combined to complete the technical focus of four required units. Please contact the Division of Career, Technical and Adult Education, if there are questions about a specific course.
- The Construction Cluster, Transportation Cluster, and Manufacturing Cluster areas require completion of the base CORE course for the selected cluster.
- In order for a student to receive CTE (vocational) credit, a CTEcertified teacher must teach the course. Students who choose a CTE elective focus must meet the criteria for a technical focus.
- Students may not receive less credit than the minimum shown or more credit than the maximum shown for the course. Minimum and maximum credits for courses are listed in the individual course descriptions.
- Prerequisite(s) cannot be waived for courses.
- Students may wish to select a dual credit or dual enrollment course as part of their program of study. These courses offer students the opportunity to combine secondary courses with articulated postsecondary programs. Dual credit/dual enrollment courses may lead to a certification, post-secondary credit hours, internship experiences, or apprenticeship upon completion.
- Cosmetology students must take the three-year sequence as a prerequisite(s) for the State Board of Cosmetology Licensing Examination.


## AGRICULTURAL EDUCATION

The Agricultural Education program is built on the core areas of classroom/laboratory instruction and supervised agricultural experience programs. Classroom/Laboratory Instruction is instruction in and about agriculture that utilizes a "learning by doing" philosophy. In Supervised Agricultural Experience Programs, all students are
expected to have an agriculturally related work-based learning experience while enrolled in agricultural education courses. The Agricultural Education program also employs the following strategies:

- Community-Based Planning - involvement of the school administration and community in the planning and coordination of the program is essential to success.
- Professional Development - agriculture teachers take advantage of opportunities for professional development and growth.
- Partnerships - the development of alliances with community and business leaders are essential for program success.
- Marketing - every agricultural education program needs a successful marketing strategy in place to attract and retain students and the support of the community that is being served.


## Advanced Principles of Agricultural Sciences

## Grade(s) 9-11

One credit/One year
Recommended Prerequisite(s): Agriscience (HQ) or Principles of Agricultural Sciences

This course includes standards that challenge students to plan for one of the five career clusters in agriculture. Understanding the skills necessary to be successful in an agriculture career is important for students as they enter the agricultural industry in the 21st century.

## Agricultural Engineering

Grade(s) 11-12
One or two credits/One year
Recommended Prerequisites: Agriscience (HQ), Principles of Agricultural Sciences or Principles of Horticultural Sciences

This course includes standards on metal fabrication and agriculture structures. Subject matter will include hot/cold metal work, cost and material computation, electrical wiring, engine service and repair, blueprint reading, drawing and selection of appropriate materials for projects.

## Agricultural Mechanics and Maintenance

Grade(s) 9-11
One credit/One year
Recommended Prerequisites: Agriscience (HQ), Principles of Agricultural Sciences or Principles of Horticultural Sciences

This course includes standards to prepare students for operational procedures for a shop or a home environment. Students learn basic skills in areas, including welding, electricity, land measurement, and plumbing. As students enter the 21st century, they need to have skills that can be used in a rural or an urban environment.

## Agricultural Power and Equipment

Grade(s) 9-11
One credit/One year
Recommended Prerequisite(s): Agriscience (HQ), Principles of Agricultural Sciences or Principles of Horticultural Sciences

This course includes basic information and laboratory activities on small engines, tractors and agricultural equipment maintenance, repair and overhaul. The standards address competencies for electrical motors, hydraulic systems and fuel-powered engines.

Agriscience (HQ)
Grade(s) 9-10
One credit/One year
Prerequisite(s): None
This course is a laboratory science course that prepares students for biology, subsequent science courses and postsecondary pursuits. The content area includes ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life processes. This course helps students understand the important role agricultural science serves as industry moves into the 21 st century.

Note: Agriculture Science (Agriscience) satisfies one credit of life science laboratory credit required for graduation or it may be awarded for one CTE (vocational) credit.

## Aquaculture/Hydroponics

Grade(s) 9-10
One credit/One year
Recommend Prerequisite(s): Agriscience, Principles of Agricultural Sciences, or Principles of Horticultural Sciences

This course will introduce students to the exploration of the fastest growing field in the agricultural industry. Producing food in a water environment to meet the needs of today's increasing population includes raising shrimp, tilapia and shellfish. The hydroponics area includes growing various fruits and vegetables without the use of soil. Students will learn how to address issues such as using less space for food production, water management, including testing for water quality, dissolved oxygen, pH , and ammonia.

## Floral Design

Grade(s) 10-12
One credit/One year
Prerequisite(s): Principles of Horticultural Sciences, Agriscience or Principles of Agricultural Sciences

This course is designed to introduce students to the career possibilities in the floral industry and to provide basic instruction in the techniques of floral design. It includes standards that prepare students to produce creative floral arrangements for various events and cultures.

## Forestry Management

Grade(s) 10-12
One credit/One year
Recommended Prerequisites: Agriscience or Principles of Agricultural Sciences

This course is designed to develop skills in identifying trees, reorganizing habitat, performing timberland improvements, estimating volume of standing trees, and recommending regeneration practices. The student will learn the use of sound forestry practices that observe and increase the productivity and economic value of forest, woodlot, or existing land. Exploratory experiences will be encouraged to develop career entry knowledge and skills in the field of forestry.

## Greenhouse Management

Grade(s) 9-11
One credit/One year
Prerequisite(s): None
This course focuses on the study of greenhouse management along with raising all types of greenhouse crops grown for sale. Emphasis is placed on small fruit and vegetable productions and the floriculture industry. Participation in greenhouse work and small orchard area is important in this course.

## Landscaping and Turf Management

Grade(s) 10-12
One credit/One year
Recommended Prerequisite(s): Principles of Horticultural Sciences, Agriscience (HQ), or Principles of Agricultural Sciences

This course includes standards to prepare students for creating beautiful environments for homes and businesses. This course includes site analysis and preparation, landscape drawing, plant selection, and installation. Maintenance of healthy attractive landscapes and turf areas will be emphasized. With the increase of urban sprawl these career opportunities are increasing daily. Plant science and leadership skills taught in this class will prepare students to meet the demands of this exciting industry.

## Leadership Communications*

Grade(s) 10, 11, 12
One credit/One year
Prerequisite(s): Agriscience (HQ), Principles of Agricultural Sciences, or Principles of Horticultural Sciences

This course analyzes attributes and capabilities of those in leadership positions, to assist students in the development of their communication skills and interpersonal relationships and other related skills. Most jobs are lost or gained as a result of the leadership and communication ability a person has. As we enter the 21st century and a global marketplace, these skills will become more important as an asset for career success.

## *Denotes a dual credit/dual enrollment course

## Plant Biotechnology

Grade(s) 11, 12
One credit/One year
Recommended Prerequisite(s): Agriscience (HQ), Principles of Agricultural Science, Principles of Horticultural Science, and Biology

This course will introduce students to rigorous standards related to the principles of plant growth, cell structure and functions, heredity and genetics (molecular biology), plant breeding and improvement, hormones and growth regulators, chemical nature of plant life, flower structure and function, seed formation and germination, DNA and biotechnology, and emerging technologies. Students will use scientific investigation to determine a plant problem. FFA and supervised experience will be included as appropriate.

## Plant and Soil Science

Grade(s) 9-12
One credit/One year
Recommended Prerequisites: Agriscience or Principles of Agricultural Sciences

This course is designed to help students learn how to address issues dealing with the use of natural resources and agronomic crops as we see the need for improved management methods to meet the needs of agricultural production while addressing concerns dealing with urbanization and soil conservation.

## Principles of Agricultural Sciences

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course is designed to develop the basic theories and principles involved in animal science, agribusiness, agricultural mechanics, and natural resource management. The standards prepare students to choose among agricultural careers for the 21st century.

## Principles of Horticultural Sciences

Grade(s) 9-11
One credit/One year
Prerequisite(s): None

This course introduces students to the vast areas of the horticulture industry. Topics include leadership, greenhouse management, garden center operations, floriculture, nursery operations, landscaping, and turf grass management. An introduction to plant and soil science is included as a necessary foundation to the success of today's horticulturalist.

## Supervised Agriculture Experience

Grade(s) 11-12
One year

This course indudes activities that are part of a structured system to allow students to apply classroom theories and explore career options at the work site, as well as connect classroom learning to work. Workbased learning is a method of instruction that enhances a related class in which a student is enrolled. Credit earned in work-based learning is through the regular class in which the student is enrolled at the same time as the WBL experience. The credit is recorded as an additional credit in that class. The WBL experience does not replace the regular class instruction time.

## Wildlife Management and Recreation*

Grade(s) 10-12
One credit/One year
Recommended Prerequisite(s): Agriscience or Principles of Agricultural Sciences

This course emphasizes the awareness of conservation and preservation management practices utilized to ensure the sustainability of our outdoor resources. Integrated academics and experiential learning will build conservation awareness among students. This will, in turn, generate career interests and more responsible land ownership in the community as we enter the 21st Century. *Denotes a dual credit/dual enrollment course

## BUSINESS TECHNOLOGY EDUCATION

Business, as well as Information Technology, exists primarily to provide information and training for and about business for those students who may possess an interest or an aptitude in business and/or office careers. It is intended that a natural component of this curriculum will be an emphasis on the acquisition of technical knowledge and skills as well as the development of the learner into a stable and contributing member of society. Membership in Future Business Leaders of America (FBLA), a professional Career and Technical Student Organization (CTSO), is an integral component of instruction in all business technology courses. In most instances, the term "vocational" has been replaced with CTE (Career and Technical Education), which more clearly encompasses the expansive curriculum content of the CTE courses.

Two one half credit courses or a one credit course will meet the 180 hours requirement in Computer Technology. Microsoft Office/Business and Internet \& Computing Core global certifications are available to high school students and adults at the following authorized testing sites: Craigmont High School, Cordova High School, Douglass High School, Hamilton High School, Kingsbury Career and Technology Center, and Whitehaven High School

## Accounting I

Grade(s) 10, 11, 12
One credit/One year
Prerequisite: Computer Applications

This course introduces concepts and principles based on a doubleentry system of maintaining the financial records of a sole proprietorship, partnership, and corporation. It includes analyzing business transactions, journalizing, posting and preparing worksheets and financial statements. Activities in this course will be completed manually and electronically.

Note: Must be taught by a certified CTE-certified (vocational) instructor under state code 3779.

## Accounting II

Grade(s) 11, 12
One credit/One year
Prerequisite: Satisfactory completion of Accounting I

This course is an advanced study of concepts, principles, and techniques used in keeping the financial records of a sole proprietorship, partnership, and corporation. Departmental, management, cost, and not-for-profit accounting systems are explored. Activities in this course will be completed manually and electronically.

Note: Must be taught by a certified CTE-certified (vocational) instructor under state code 3780.

## Administrative Management

Grade(s) 11, 12
One, two or three credits/One year
Prerequisite(s): Document Formatting and Computer Applications Recommended: Two credit hour blocks for students pursuing certification and/or advanced training.

This capstone course provides advanced training, including hands-on experiences for students pursuing a career in business technology. Skills developed in previous courses will be incorporated and enhanced through a multi-tasking environment using a variety of input technologies. Procedures and concepts are related to information processing systems, administrative/information management, business standards, feasibility studies, cost/budgeting, leadership, ethical and legal issues, mathematics and, communications. This course may articulate toward a post-secondary program.

## Advanced Computer Applications

Grade(s) 10, 11, 12
One or two* credits/One year
Recommended Prerequisite: Skills in Keyboarding and Computer Applications I

This is a capstone course in which students will learn necessary skills in problem solving using current and emerging integrated technology to include a variety of input technologies in the production of professional quality business documents and presentations. The course focuses on student choice, accountability, and performance. Students increase their employability by working toward the attainment of high-level skills in the areas of integrated software applications, communication skills, ethical issues, human relations, leadership, self-management, and workplace management. Students may choose areas of specialization and achieve industry certification in areas such as word processing, spreadsheet applications, multimedia presentations, schedule and contact management, etc. This course may articulate to post-secondary education.

Note: *Students must choose a minimum of two areas of specialization to prepare for industry certification.

## American Business Legal Systems

Grade(s) 10, 11, 12
One-half credit/One semester
Recommended Prerequisite: Computer Applications
The course provides students an understanding of the legal framework in which American business functions. The combination of the free enterprise system in a democratic society at all levels influences one's daily decisions. Students will analyze the alliance between capitalism and democracy and be better prepared to influence the decisions of tomorrow in the public and private sectors of the United States of America.

Highly Qualified status American Business Legal Systems substitutes for the United States Government credit required for graduation with HQ teacher.

## Banking \& Finance

Grade(s) 11, 12
One or two credits/One year
Recommended Prerequisite: Computer Applications
This course designed to challenge the student with real banking and financial situations through a partnership with a local financial institution that would bring resources of mentors, seminars, and hands on experience with day-to-day operations. Completion of this course will provide students with a basis for continuing education in finance and business administration specializing in job skills in banking and financial institutions. Ethical issues will be presented in the course.
*If this course is part of an Academy curriculum, it is recommended that an internship experience be provided.

## Business Economics

Grade(s) 11, 12
One-half credit/One semester
Recommended Prerequisite(s): Business Principles, Computer
Applications, and Document Formatting
This course provides an in-depth study of fundamental concepts, free enterprise trading practices and the various players in the economic system. Topics include the production, marketing and distribution of goods and services, as well as the roles of financial institutions, the government and the individual within the free enterprise system and international trade. Students will explore various careers related to the economy.

Highly Qualified status Business Economics substitutes for the Economics credit required for graduation with HQ teacher.

## Business Management

Grade(s) 10, 11, 12
One credit/One year
This course will help students develop a foundation in the many activities, problems, and decisions that are intrinsic to the management of a successful business, as well as an appreciation for the importance of these responsibilities. Areas to be examined include business organization, ethical and legal responsibilities, communication, decision-making, personnel, safety, professional development and related careers. By gaining an understanding of these areas, students will be better prepared to enhance the business decisions of tomorrow.

## Business Principles

Grade(s) 9, 10
One-half or One credit/One semester or One year
Suggested Prerequisite or Concurrent Course: Computer Applications
This core course introduces students to all aspects of business: the international economy; finance principles; management strategies; and information systems. Students will analyze the elements of business environment and focus on attitudinal and problem-solving skills inherent to success in business.

## Computer Programming I

## Grade(s) 10, 11, 12

One credit/One year
Suggested Prerequisites: Algebra I Recommended Prerequisites:
Skills in Keyboarding, Computer Applications

This course is designed to develop object-oriented programming language skills using high level languages such as Java, C++, and BASIC. The student will utilize the commands, statements, and procedures of this language to write, run, debug, and edit computer programs. This first-level course leads to game programming.

## Computer Programming II

## Grade(s) 11, 12

One credit/One year
Recommended Prerequisite: Computer Programming I
This course is designed to enhance skills developed in Computer Programming I in object-oriented programming language skills using high-level languages such as Java, C++, and BASIC. The student will utilize the commands, statements, and procedures of this language to write, run, debug, and edit computer programs. This second-level course leads to Game Programming.

## Computer Applications

## Grade(s) 9, 10

One-half or One credit/One semester or One year
Suggested Prerequisite or Concurrent Course: Document Formatting
This course is designed to develop computer technology skills. Students will use a variety of computer software and hardware tools and features of an electronic information network. Students will explore the historical, social and ethical issues of using computer technology. The students will develop skills that will assist them with efficient production; accurate production analysis; management of information and design and presentation of a multimedia project.

## Database Design/Management

Grade(s) 10, 11, 12
One-half credit/One semester
Recommended Prerequisite: Document Formatting or Concurrent Course with Word Processing

This course introduces students to analyzing and applying database design techniques and management methods for organizing and maintaining files. Students will apply keying, typography, layout, and design skills in creating, designing, and entering data, importing and exporting data, and printing database objects. At the completion of the course, students will have database management skills enabling them to design and implement a relational database application. Student proficiency should lead to software certification.

## Desktop Publishing

Grade(s) 10, 11, 12
One-half or One credit/One semester or One year
Recommended Prerequisite: Computer Applications

The course will help students develop skills in electronic publishing design, layout, composition, and photo journalism. Techniques will be applied in creating and formatting a variety of publications with imported data/graphics using a variety of resources. Laboratory
facilities and experiences simulate those found in the graphic communications industry.

## Document Formatting

Grade 9
One-half credit/One semester
Recommended Prerequisite: Computer Literacy K-6, Skills in Keyboarding

This course is formatted so students will apply basic skills in operating a computerized keyboard by using the touch system and other input technologies to produce mailable business and academic documents. Standards for mailing relate to keying, formatting, grammar, punctuation, capitalization, spelling, content, typography and layout and design. Using special features of the software, the student will be able to format academic and business reports.

## eBusiness Communications

Grade(s) 10, 11, 12
One credit/One year
Recommended Prerequisite: Document Formatting
This course is the study of oral, written, and electronic communications in a global society. This course will also address the use of Web browsers, navigators, search engines, on-line communication methods, home and Web design concepts, transfer of data, downloading files, security procedures and internet navigation tools. Emphasis is placed on electronic research, business report writing, business correspondence, enhancement of oral presentations with electronic media and communications applying current technology.

## Financial Planning

Grade(s) 10, 12
One-half credit/One semester
Recommended Prerequisite(s): Personal Finance and Computer Applications or concurrent with Accounting I

This course is designed to develop skills in the use of financial planning principles used in making business decisions. Students will research job qualifications and employment opportunities in finance. The course includes a study of the allocation of financial resources, the effects of finance and credit institutions on the business community and the impact of financial decisions on the consumer market.

## Game Programming

Grade 12
One credit/One year
Recommended Prerequisites: Computer Programming II, Geometry Suggested Prerequisite Concurrent Course: Physics

This course is intended for students who have displayed a mastery of programming fundamentals such as HTML and Java. It is projectbased where the student explores the entire game production process and gains experience working on a collaborative programming project. At the end of the course, each team of students should have participated in an entire game development cycle resulting in a complete, fully functional game.

## Interactive Multimedia Presentations

Grade(s) 11, 12
One credit/One year
Prerequisite(s): Document Formatting
This course requires students to apply keying, typography, layout and design skills. Students will become proficient in using interactive multimedia tools to develop electronic presentations. Creative design, persuasive communications, and language arts skills are applied through research, evaluation, validation, written, and oral communication. Typography, layout and design guidelines are applied. Copyright laws and ethical practices are reinforced in creating and formatting various presentations that require imported data/graphics, digital, audio, and video content. Team development will also be stressed as students work on multimedia project(s). Laboratory facilities and experiences simulate those found in business and industry.

Note: Must be taught by a certified CTE-certified (vocational) instructor under state code 3746.

## Personal Finance

Grade(s) 11, 12
One-half credit/One semester
Prerequisite(s): None
This course meets the required one-half Personal Finance credit for graduation

This course is designed to help students understand the impact of individual choices on occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, a well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.

## Spreadsheet Applications

Grade(s) 10, 11, 12
One-half credit/One semester
Recommended Prerequisite: Computer Applications

Spreadsheet Applications is an electronic worksheet used to perform business calculations. Students in this course will develop and apply skills in designing worksheets, writing formulas, analyzing data, charting data and managing data. Team development will also be stressed as students work on spreadsheet projects. Student proficiency may lead to software certification.

## Virtual Enterprise International

Grade(s) 11, 12
One to two credits/One year
Recommended Prerequisite(s): Business Management and Marketing

Virtual Enterprise International (VE) is a simulated business environment. The VE students will be involved in actual on the job work experiences, including accounting, personnel administration, management and marketing. The only difference the VE and an actual business is that no materials or goods are produced or legal tender exchanged. However, services will be provided. Working in
teams, the students will develop and enhance oral and written communication skills through initiative, responsibility, and creativity. This course will link learning to application and real life experiences.

Virtual Enterprise International one credit courses substitutes for Economics credit if taught by Highly Qualified Certified business instructor.

## Web Design Applications

Grade(s) 11, 12
One or two credits/One year
Prerequisite: Web Design Essentials
Recommended: Two credit hour course for students pursuing certification and or advanced training.

This course, which is a project-based continuation of Web Design Essentials, teaches students work related skills for advancement into post-secondary education and/or the workplace. The course will provide the concepts and applications that may lead to business industry certification. Course content includes exposure to advanced Web design, graphics, animations, and the complex site design. The course content provides students the opportunity to acquire advanced skills in both theory and practical application of Web design and of leadership and interpersonal skill development.

## Web Design Essentials

Grade(s) 10, 11, 12
One credit/One year
Prerequisite(s): Computer Applications
Suggested Prerequisite or Concurrent Course: Interactive Multimedia
Presentations or eBusiness Communications

This course, which is designed as the first level of Web Design, will teach students workplace and leadership skills for advancement into the Web Design Application course. Keying and layout and design skills are essential. Students will develop Internet research techniques for business; acquire navigation mapping skills; effectively use a Web site; study fundamental concepts of digital commerce transaction security; examine related social, legal and ethical issues; study electronic financial management practices, and integrate the elements of Web Design.
Upon completion of the course, a student will be able to evaluate, implement and apply the use of technology in Digital Commerce and Web Page Design for business.

## Word Processing

Grade(s) 9, 10
One-half or One credit/One semester or One year
Recommended Prerequisite(s): Skills in Keyboarding, Document Formatting

This course builds on the keyboarding skills learned in the elementary /middle school Keyboarding course and/or the Document Formatting course. The student will use a hands-on approach to develop proficiency in document creation and design. Formatting, typography, and layout and design concepts are applied in document preparation of business letters, forms, invoices, manuscripts, and tabulated and columnar information. Emphasis is on production of business applications and speed and accuracy. Proofreading and editing skills are applied. Students will use database software to create a simple database. Sorting, querying, reporting, and integrating or merging
data into a word processing document will be applied to the database. Simulations will be utilized to represent integrated workplace situations.

## Work-Based Learning/Supervision Periods

Grade(s) 11-12
One credit/One year
Work-Based Learning (WBL) activities are part of a structured system to provide students the opportunity to apply classroom theories and explore career options at the work site, as well as connect classroom learning to work. Structured WBL experiences may include registered apprenticeship, cooperative education (co-op), internships, clinical internships (clinicals), school-based enterprises, special education transition, and service learning. Structured learning experiences must be related to the student's program of study, career goals and must provide close student supervision. WBL does not replace the regular class instruction time. Credit for Cooperative Methodology is awarded in the appropriate related CTE course in which the student is enrolled. Teachers who supervise this experience must hold proper endorsement and have completed the state approved training and internship or state-approved course equivalent.

## CONTEXTUAL ACADEMICS

Contextual teaching and learning (CTL) is based on the premise that students can find meaning in classroom instruction when they join the content of academic subjects with the context of daily life. The Contextual Academics courses integrate theoretical concepts with practical, relevant applications. These courses are appropriate for students bound for advanced education or work. The courses are not designed as remedial courses. They are designed to place academic concepts within the context of workplace situations as a means of enhancing student understanding of these concepts.

## Contextual Algebra I (HQ)

Grade(s): 9-12
One credit/One year
This course serves as the foundation for higher mathematics courses and is valuable and necessary for all students. Contextual Algebra I students will be involved in solving problems that arise from real-world settings and contexts and using the language of algebra to find and interpret solutions. Development of conceptual understanding of proportionality, multiple representations, variables, equality and inequality, functions and dependency, and data analysis are all included in the instruction of Contextual Algebra I. Students will learn algebraic concepts and apply them to geometry, statistics, and data analysis, and probability.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Contextual Algebra II (HQ)

Grade(s): 9-12
One credit/One year
Prerequisite(s): Contextual Algebra I
This course provides students with a deep and extended study of the topics and concepts developed in Contextual Algebra I. Emphasis is placed on quadratic functions, matrices, exponential and logarithmic
functions, the structure of number systems, data analysis, and probability. Instruction in this course centers on the use of real-world problems and workplace scenarios to demonstrate how algebra can be used to model real phenomena. Extensive use of graphing calculators and computer technology in Contextual Algebra II means that there will be decreased emphasis on paper-and-pencil graphing of equations by point plotting, on logarithmic calculations using tables and interpolation, on solving systems of equations by using determinants, and on conic sections.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Contextual Biology (HQ)

Grade(s): 9-12
One credit/One year
Contextual Biology I is a course during which students continue their study of living things. Through a balance of classroom and laboratory work related to workplace scenarios, students will explore the following:

- Basic life processes at the molecular, cellular, systemic, organismal, and ecological levels of organization within the biosphere,
- Interdependence and interactions within the environment to include relationships, behavior, and population dynamics,
- Cultural and historical scientific contributions of men and women,
- Evidence that supports biological evolution, and
- Current and future technologies.

Using available technology, students will investigate the world around them. Contextual Biology I will provide the student with knowledge, prerequisite skills, and habits of mind needed for daily living and ethical decision making in their personal lives and in the workplace on issues including biotechnology and the environment, as well as provide a background for advanced biological studies and personal career choices.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Contextual English IV (HQ)

Grade(s): 9-12
One credit/One year
This course is designed to prepare students to complete their formal secondary education with the skills needed to communicate effectively with others in the workplace or to gain admission to and succeed in college or professional school. Writing experiences include formal, informal, creative, and technical/functional compositions. An additional aim is to cultivate and nurture an appreciation of literature. In Contextual English IV the focus is on relevant literature, with an emphasis on examining literary works within their historical and cultural contexts.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## Contextual Geometry (HQ)

Grade(s): 9-12
One credit/One year
This course incorporates the same core geometric concepts required in a standard geometry course but includes additional topics that focus on career and technical applications. These concepts will be taught using practical applications in a contextual style of teaching, including labs and projects. The structure of the course will include teaching groups of skills and concepts followed by their incorporation in a real world application and setting. The concepts and topics emphasized in the course include measurement, geometric patterns, coordinate geometry, two- and three-dimensional figures, transformational geometry, congruence, similarity, inductive and deductive reasoning, logic and proof.

Note: Teachers who teach this course must hold proper endorsement and have attended the state-approved, five-day Contextual Academics training.

## FAMILY AND CONSUMER SCIENCES EDUCATION

Family and Consumer Sciences Education empower students to manage the challenges of living and working in a diverse global and ever-changing society. They develop skills in decision-making, problem solving, managing work and family, communication, technology, leadership, citizenship and career readiness. In addition to supporting and complementing the family's role, Family and Consumer Sciences programs offer students the opportunity to select and prepare for related careers. The integration of Family, Career, and Community Leaders of America (FCCLA) in all Family and Consumer Science classes provides students with opportunities for leadership development, personal growth and school/community involvement.

## Child and Lifespan Development

Grade(s) 10-12
One-half to one credit/One semester to one year
Prerequisite(s): None
This course prepares students to understand the physical, social, emotional and intellectual growth and development throughout the lifespan. Experiences such as laboratory observations, job shadowing, service learning and laboratory participation will enhance the learning process. Instructional content includes child development theories and research; prenatal development; infants and toddlers; preschool years; middle childhood; adolescence; adulthood; geriatrics; death and dying; careers; and leadership, citizenship and teamwork.

## Consumer Economics

Grade(s) 10-12
One-half credit*/One semester
Prerequisite(s): None
This course is designed to prepare students to understand the United States economics system and the system's impact on individuals as consumers, producers and citizens. Students will integrate knowledge, skills and practices required for management of resources in a technologically expanding global economy. Consumer practices and responsibilities that foster financial security are investigated. The responsibility of the consumer relating to environmental and ecological issues is explored.
*Consumer Economics satisfies the one-half credit requirement in Economics.

## Family and Consumer Sciences

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course is a comprehensive, foundation course designed to assist students in developing the core knowledge and skills needed to manage their lives. Emphasis is on leadership, human development, family and parenting education, consumer economics and resource management, housing and living environments, nutrition and foods, textiles and apparel, and career preparation. Critical skills in decisionmaking, problem solving, critical thinking, technology, work and family management, and workplace readiness are reinforced through authentic experiences. The course allows students to select specific areas for future concentrated study.

## Family and Parenting

Grade(s) 10-12
One-half to one credit/One semester to one year
Prerequisite(s): None
This course focuses on the significance of the family as a basic unit of society and the impact of parenting roles and responsibilities on the wellbeing of individuals and society. Instructional content includes family, individuals, and society; relationships; communication; multiple roles; parenting roles and responsibilities; careers; and leadership, citizenship, and teamwork.

## Fashion Merchandising and Design

Grade(s) 10-12
One-half to one credit/One semester to one year
Prerequisite(s): None
This course is designed to introduce students to the world of fashion. Areas of study include fashion fundamentals, principles and elements of design, career options and preparation, product selection and maintenance, and consumer strategies. Instruction includes academic integration and technology applications.

## Housing

Grade(s) 10-12
One-half to one credit/One semester to one year Prerequisite(s): None

This course is designed to prepare students to understand the influences affecting housing decisions. Emphasis is on using available resources effectively to meet individual housing needs.

## Interior Design

Grade(s) 10-12
One-half to one credit/One semester to one year Prerequisite(s): None

This course focuses on the interior of living environments. The course includes instruction in the fundamentals of interior design; the application of skills, knowledge, and design principles to the living environment; interior design occupations and careers; universal and "green" design; and professional and marketing skills. Instruction
includes academic integration and technology applications.

## Life Connections

Grade(s) 11-12
One credit/One year
Prerequisite(s): None

This course is designed to assist students in making a successful transition from high school into the post high school environment. Students will be empowered to take action for the well being of themselves and others as they effectively manage the roles and responsibilities created by family, career and community interactions. The role of communication in establishing and maintaining healthy interpersonal relationships is emphasized. Skills related to decision making, problem solving, critical and creative thinking, technology, and workplace readiness practiced in Life Connections will provide students with an understanding of how to plan for and manage careers in an ever-changing workplace.

## Nutrition and Foods

Grade(s) 10-12
One-half to one credit/One semester to one year
Prerequisite(s): None

This course is designed to help students understand the nutrient value, appetite appeal, social significance and cultural aspects of food. Students will examine the role of nutrition in the prevention of health conditions, such as obesity, and the promotion of optimal body performance throughout the life span. The course offers students opportunities to develop skills in the safe and sanitary selection, preparation, storing, and serving of food; meal management to meet individual and family nutrition needs across the life span; and optimal use of food resources. Instruction includes academic integration and technology applications. Careers in nutrition and food industries will be explored.

## Nutrition Science

Grade(s) 10-12
One credit/One year
Prerequisite(s): None
This course is an interdisciplinary laboratory science course. Concepts of chemistry, biology, physics, and nutrition are applied to the production, processing, evaluation, and utilization of foods. Students use scientific methods in laboratory experiments to facilitate the understanding of the human body, food, nutrition, and science. Classroom experiences help students put scientific knowledge to practical use, making abstract concepts concrete.

This credit satisfies either one credit of life science (if team-taught with a biology teacher) or one credit of physical science if team-taught with a chemistry teacher) required for graduation. The University of Tennessee Board of Trustees and Tennessee Board of Regents approve this course for admission.

## Personal, Academic and Career Excellence (PACE)

Grade(s) 9-12
One credit/One year
Prerequisite(s): None
This course introduces ninth grade students to life planning course. This transition course will help students develop a sense of relevance and ownership in their learning. PACE will empower them to become responsible, contributing and productive members of an ever-changing global society. Students will envision and "pace" their lives through the development of a personalized ten-year life plan. They will be motivated to strive toward excellence in navigating their personal, academic and career lives.

## Personal Finance

Grade(s) 11-12
One-half credit/One semester
Prerequisite(s): None

This course is designed to help students understand the impact of individual choices on occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.

## Teaching as a Profession (TAP)

Grade 12
One credit/One year
Prerequisite(s): None
This course is designed to capture the interest of secondary students as potential teachers, introduce students to teaching as a profession, and foster respect for the teaching profession. Students will gain knowledge and skills that will establish a foundation for a successful pathway to a teaching career. Content includes history and current issues of education, teacher roles, responsibilities and characteristics, self-exploration and understanding, the teacher and learning processes, human growth and development, teaching career opportunities and preparation, and components of instruction. Students will learn through classroom observations and experiences, student organization activities, and the development of a professional portfolio.

## Textiles and Apparel

Grade(s) 10-12
One-half to one credit/One semester to one year
Prerequisite(s): None

This specialized course designed to prepare students to understand the social, psychological, and physiological aspects of textile and apparel products. Instructions in how to select, produce, maintain, and alter textile and apparel products, and the effect of consumer choices on the needs of the individual and family are included in the course of study.

## OCCUPATIONAL FAMILY \& CONSUMER SCIENCES EDUCATION

Occupational Family and Consumer Sciences Education are designed to prepare individuals for employment in occupations utilizing knowledge and skills in Family and Consumer Sciences subject matter. Laboratory activities are designed to prepare students for occupations in Culinary Arts, the Hospitality Industry, Early Childhood Education Careers, Fashion and Fabric Industry, and Institutional and Home Services Careers. FCCLA activities are an integral part of the curriculum. A minimum of two credits is required in all occupational classes to advance to the next level.

## Culinary Arts I

Grade(s) 10-11
One, two or three credits/One year
Prerequisite(s): None
This course is the first level of Culinary Arts and is designed to help prepare students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career opportunities and by developing food preparation and service and interpersonal skills. Laboratory facilities and experiences, which simulate commercial food production and service operations, offer school-based learning opportunities.

## Culinary Arts II

Grade(s) 10-11
One, two or three credits/One year
Prerequisite(s): Culinary Arts I
This course, which is the second level of Culinary Arts, prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by demonstrating the principles of safety and sanitation, food preparation skills, and teamwork to manage an environment conducive to quality food production and service operations.

Laboratory facilities and experiences which simulate commercial food production and service operations, offer school-based learning and work-based learning opportunities.

## Culinary Arts III

Grade(s) 11-12
One, two or three credits/One year
Prerequisite(s): Culinary Arts II
This course is the third level of Culinary Arts, and serves as a capstone course. Students engage in advanced experiences to prepare students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to apply the marketable culinary arts skills they have acquired by assuming increasingly responsible positions including participation in a cooperative education experience.

## Culinary Arts II/III

Grade(s) 11-12
One to three credits/One year
Prerequisite(s): 2.8 GPA or higher, good attendance, and teacher recommendation

This course introduces students to The ProStart® Program which is a two-year industry-based program that prepares them for careers in the restaurant and foodservice industry. Students gain valuable restaurant and foodservice skills through their academic and workplace experiences.

Early Childhood Education Careers I<br>Grade(s) 10-12<br>One credit/One year<br>Prerequisite(s): (FACS) Family \& Consumer Sciences or (Pace)<br>Personal, Academic and Career Excellence

This course will launch students on a career pathway into the field of early childhood education and may lead to entry-level employment and/or postsecondary education. Content will provide a foundation in the concepts of child development theory and afford students the opportunity to integrate knowledge, skills and practices required for careers in early childhood education and related services. Laboratory experiences will offer school-based and/or work-based learning opportunities. Students will receive a childcare industry recognized certificate upon completion of this course and articulated postsecondary education credit.

## Early Childhood Education Careers II

Grade(s) 10-12
One, two or three credits/One year
Prerequisite(s): Early Childhood Education Careers I
This course allows students to continue on the pathway in early childhood education and may lead to employment and/or entry into postsecondary education. Content provides students the opportunity to apply child development theory, develop and implement learning activities for young children, and integrate knowledge, skills and practices required for careers in early childhood education and related services. Laboratory experiences offer school based and/or workbased learning opportunities.

## Early Childhood Education Careers III

Grade(s) 11-12
One, two or three credits/One year
Prerequisite(s): Early Childhood Education Careers II
This course serves as a capstone course and further prepares students for employment and/or entry into postsecondary education in the early childhood education and services industry. Students will obtain knowledge and skills in administration and management. They will explore areas related to instruction and services of special needs children. Students will apply the early childhood education knowledge and skills, including recommended participation in a cooperative education experience.

## HEALTH SCIENCE EDUCATION

Health Science Education programs are designed to acquaint students with a variety of health careers. Students acquire knowledge and skills, which prepare them for existing and emerging careers in health science. The program provides students an academic foundation in reading, writing, mathematics, and the application of science knowledge such as biology, chemistry, and physics. Health Science Education provides hands-on experiences in health care facilities. The integration of Health Science Occupations of America (HOSA) in all Health Science classes provides students with the opportunities for leadership development, personal growth and school/community involvement.

Anatomy and Physiology Health Science
Grade(s) 10-12
One credit/One year
Recommended Prerequisite(s): Biology
This course introduces students to human anatomy and physical functions. They will analyze descriptive results of abnormal physiology and evaluate clinical consequences. A workable knowledge of medical terminology will be demonstrated. This course may be offered for one unit of science credit if the health science instructor is highly qualified in science of for one unit of career and technical education credit. This course may also be offered as a dual enrollment/dual credit course if approved.

## Biomedical Applications*

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course provides an overview of biomedical research applications. Topics covered include understanding laboratory procedures fundamental to biomedical research in the areas of serology, microbiology, hematology, and DNA studies. Students will also understand the importance of the scientific method and documentation to all areas of research. Additional topics include communication skills, the history and development of the field of biomedical research and understanding the legal environment and technology transfer aspects of biomedical research.
*This course may be offered for one unit of science credit if the health science teacher is highly qualified in science or for one unit of careers and technical education credit. This course may also be offered as a dual enrollment/dual credit course if approved.

## Diagnostic Medicine

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course is designed to provide an orientation to diagnostic imaging, which includes history, ethics and basic principles of radiation protection, medical and medico-legal terminology, as well as preclinical observation. Students learn the important role diagnostics plays in the diagnosis and treatment of many medical conditions. Students are also introduced to related careers and career areas: audiologist, cardiology, imaging, medical laboratory, radiography, nuclear medicine, stereotactic radio surgery, cytotechnologist, clinical laboratory technician, pathologists, medical physician, and
histotechnologist.

## Emergency Medical Services (EMS)

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course is designed for students interested in a career in prehospital or emergency patient care. Career options may include emergency room physician, emergency medical technician, paramedic, or emergency room nurse.

## Forensic Science

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course is an overview of how science is applied to solving crimes. Topics include history of forensic sciences, collecting of evidence, analyzing results and hands-on application of many laboratory techniques used in solving crimes and identifying people and future careers. Jobs include forensic nurses, odontologists, pathologists, psychiatrists, medical examiners/corners, forensic technicians, toxicologists, wildlife specialists, forensic engineers, accountants, computer specialists, aviation and construction accident investigators, forensic photographers, skull reconstructionist, document and polygraph examiners.
*This course may be offered for one unit of science credit if the health science teacher is highly qualified for science or for one unit of career and technical education credit.

## Health Information Technology

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course will provide knowledge of ways to document an individual's care in the home, hospital, long term care facility, outpatient situation, and other placements. Careers could include medical records, health management, risk management, unit coordinator, computer operator, social worker, patient advocate, hospital chaplain, clinical department director, community services specialist, computer services specialist, computer security specialist, data analyst, health writer, medical librarian, medical video producer and others.

## Health Science Education

Grade(s) 912
One credit/One year
Prerequisite(s): None
This course is an introduction to broad standards that serve as a foundation for Health Care Occupations and functions across health services. Units included are academics in health care communications systems, legal responsibilities, ethics, teamwork, and safety practices.

## Medical Terminology

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course is designed to develop a working knowledge of the language of health professions. Students acquire word-building skills by learning prefixes, suffixes, roots, combining forms, and abbreviations. Utilizing a body systems approach, students will define, interpret, and pronounce medical terms relating to structure and function, pathology, diagnosis, clinical procedures, and pharmacology. Students will use problemsolving techniques to assist in developing an understanding of course concepts.

## Medical Therapeutics

Grade(s) 11-12
One credit/One year
Prerequisite(s): None

This course provides knowledge and skills to maintain or change the health status of an individual over time. This could include such careers as dental, dietetics, medical assistance, home health, nursing, pharmacy, respiratory, social work, nutritionist, physician, psychiatrist, psychologist, veterinarian, gerontology service provider, medical practice owner, attorney for health care and others.

## Nursing Education

Grade(s) 11-12
One credit/One year
Prerequisite(s): None
This course consists of 18 units of study dealing with direct bed-side nursing care. Clinical experience will consist of supervised practice in the nursing home as well as demonstrations in the classroom. Students can be registered by Tennessee Department of Health -after the completion of the course, 100 hours clinical and theory, passing a state test (both written and skills) -- and will be job ready. Students may complete a clinical internship following this course. Jobs include registered nurse, clinical nurse specialist, nurse practitioner, nurse midwife, nurse anesthetist, forensic nurse, and other occupations.
*If the students are certified as nursing assistants, they must complete a minimum of 100 hours course work: 40 hours classroom, 40 hours clinical in a Long-Term Care Facility and 20 hours in either Long-Term Care Facility or Classroom Clinical setting.

## Rehabilitation Careers

Grade(s) 11-12
One credit/One year
Prerequisite(s): None

This course will focus on enabling the person to live to the fullest capacity possible. Units will include sports medicine, physical therapy, occupational therapy, speech/language therapy, art, music, dance therapy, and others.

## Work-Based Learning/Supervisory Periods

Grade(s) 11-12
No credit
Prerequisite(s): Simultaneous enrollment in any Health Sciences \& Technology course offering Cooperative Methodology

Work-Based Learning (WBL) activities are part of a structured system to provide students the opportunity to apply classroom theories and explore career options at the work site, as well as connect classroom learning to work. Structured WBL experiences may include registered apprenticeship, cooperative education (co-op), internships, clinical internships (clinicals), school-based enterprises, special education transition, and service learning. Structured learning experiences must be related to the student's program of study, career goals and must provide close student supervision. WBL does not replace the regular class instruction time. Credit for Cooperative Methodology is awarded in the appropriate related CTE course in which the student is enrolled. Teachers who supervise this experience must hold proper endorsement and have completed the state approved training and internship or state-approved course equivalent.

## MARKETING EDUCATION

The marketing industry provides one of the fastest growing areas of employment opportunities in the United States. Marketing is a critical, challenging area that applies economics, psychology, and sociology. Successful performance depends on the application of mathematics and English principles, the use of scientific problem solving, and the application of computer technologies to marketing situations and problems. Marketing courses enable students to understand and apply marketing, management, and entrepreneurial principles, to make rational economic decisions, and to exhibit social responsibility in a global economy. Students can transfer their skills and knowledge between and among industries.

Completion of one credit in a selected Marketing Education courses may satisfy the Economics requirement for graduation. The teacher must be certified in Economics or have met the criteria of being "Highly Qualified" under guidelines from the No Child Left Behind Act. Exploration Course Options: Exploration of Organizational Leadership and Marketing Foundation Course Options: Marketing and Management Principles I; Retail Operations; Personal Finance and Building Wealth (These courses serve as a prerequisite for Advanced Courses.) Advanced Course Options: Marketing and Management II - Advanced Strategies; Entrepreneurship; International Business and Marketing; Sports and Entertainment Marketing; Travel and Tourism; Hospitality Management (These courses require a prerequisite.)

Marketing students benefit from participation in the co-curricular organization DECA which provides students the opportunity to demonstrate application of learning and mastery of related course curriculum. Students develop positive professional and personal relationships through participating in annual regional, state and international leadership conferences and competition

## EXPLORATION COURSES

## Exploration of Organizational Leadership and Marketing

Grade(s) 9-10
One-half to One credit/One semester to One year
Prerequisite(s): None
This course is designed to develop an understanding of organizational leadership characteristics and behaviors. Students will develop skills in teamwork, conflict resolution, communication, and group problem solving techniques used in marketing careers. Students will apply the principles of leadership in school, community, and marketing related settings. This course will also introduce and provide an overview of marketing, as well as employment opportunities available in these fields. Students will explore important marketing concepts, functions, personality traits, and communication and interpersonal skills necessary for marketing and management careers.

## FOUNDATION COURSES

Marketing and Management I - Principles
Grade(s) 10-12
One-half to two credits/One year
Prerequisite(s): None

This course focuses on the study of marketing concepts and their practical application. Students will examine risks and challenges marketers face to establish a competitive edge. Subject matter includes economics, marketing foundations/functions and human resource leadership development. Skills in communication, mathematics, economics and psychology are reinforced in this course.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.
1 unit in Marketing and Management I - Principles satisfies the Economics requirement.

## Personal Finance

Grade(s) 9-12
One-half credit/One semester
Prerequisite(s): None
This course is designed to inform students on how individual choices directly influence occupational goals and future earnings potential. Real world topics including income, money management, spending and credit as well as saving and investing are covered in this class. Personal and household budgets, checking and savings accounts and knowledge of finance, debt and credit will also be explored in this class.

## Retail Operations

Grade(s) 10-12
One-half to two credits/One year
Prerequisite(s): None

This course is designed to teach students that retailing is a significant and vital component to the United States economy and is quickly becoming an integral part of the global economy. Throughout the course the student will be made aware of the importance of retailing in its various forms as the final step in getting products and services to consumers in the market place.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.
1 unit in Retail Operations satisfies the Economics requirement.

## ADVANCED COURSES

## Advertising \& Public Relations

Grade(s) 11-12
One-half to two credits/One year
Prerequisite: One marketing credit in a core course
This course focuses on the concepts and strategies associated with the dynamic and changing means of communication in order to promote products, services, ideas and/or images. This course encourages students to examine this field from the viewpoint of the creative staff, business person and consumer.

## Entrepreneurship

Grade(s) 11-12
One-half to two credits/One year
Prerequisite(s): Marketing \& Management I, Retail Operations
This course is designed to provide the high school student with the opportunity to analyze and evaluate the various aspects of business ownership in today's marketplace. The student will also be involved in the actual process of developing a business plan and then determining its opportunities for success. Throughout this course the student will relate the foundations of marketing and business management to reallife entrepreneurial endeavors.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits. One unit in Entrepreneurship satisfies the Economics requirement.

## Hospitality Management

Grade(s) 10-12
One to three credits/One year
Prerequisite(s): None

This course is designed to provide training for entry-level employment in the lodging industry including the marketing and management of lodging, attractions, recreation, transportation, and food.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

## International Business and Marketing

Grade(s) 11-12
One to three credits/One year
Prerequisite(s): At least one credit in a Marketing or Business Course
This course is designed to provide students the opportunity to explore the global market. The course will allow students to gain knowledge and develop skills necessary in an international environment. *Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

International Business and Marketing satisfies one-half credit in Economics.

Marketing and Management II - Advanced Strategies
Grade(s) 11-12
One-half to three credits/One year
Prerequisite(s): Marketing \& Management I-Principles
This course emphasizes the development of decision-making skills so that students understand the impact of management-oriented challenges. Subject matter includes finance, entrepreneurship, risk management, marketing information systems, purchasing, human resource skills, and leadership development. Communication, interpersonal and mathematics skills are reinforced in this course.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

## Marketing Research and Analysis

Grade(s) 11-12
One-half to three credits/One year
Prerequisite(s): None
This course focuses on the system (planning, collecting, processing information, and implementing information) for conducting research to determine marketing strategies. The course is targeted at students who need a basic understanding of research procedures, data interpretations, and communication of findings.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

## Sports and Entertainment Marketing

Grade(s) 11-12
One-half to three credits/One year
Prerequisite(s): None
This course is a specialized course designed to offer students an opportunity to gain knowledge and develop skills related to the growing sports and entertainment industry. Students will develop skills in the areas of facility design, merchandising, advertising, public relations/publicity, event marketing, sponsoring, ticket distribution, and career opportunities as they relate to the sports and entertainment industry.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

## Travel and Tourism

Grade(s) 11-12
One to three credits/One year
Prerequisite(s): None
This course is designed to provide training to prepare students to be employed in the travel and tourism industry. Topics included in this course of study are components of travel, travel destinations, marketing strategies, career paths in the travel and tourism industry, human relations, and communication skills required for the travel industry.
*Cooperative Methodology work experience is recommended for advanced students for up to 2 additional credits.

## Virtual Enterprise International (VE)

Grade(s) 11, 12
One to two credits/One year
Recommended Prerequisite: Business Management and Marketing I
This course is a simulated marketing environment that involves in actual on the job work experiences, including accounting, personnel administration, management and marketing. The only difference between the VE and an actual business is that no material goods are produced or legal tender exchanged. However, services will be provided. Working in a team, students will develop and enhance oral and written communication skills through initiative, responsibility and creativity. The course will link learning to application and real life experiences. The goal is to create a learning environment that, through a series of activities, integrates school and workplace to enhance learning. Laboratory facilities and experiences simulate those found in business and industry.

## Work-Based Learning/Supervisory Periods

Grade(s) 11-12
No credit
Prerequisite(s): Simultaneous enrollment in any marketing course offering Cooperative Methodology

Work-Based Learning (WBL) activities are part of a structured system to provide students the opportunity to apply classroom theories and explore career options at the work site, as well as connect classroom learning to work. Structured WBL experiences may include registered apprenticeship, cooperative education (co-op), internships, clinical internships (clinicals), school-based enterprises, special education transition, and service learning. Structured learning experiences must be related to the student's program of study, career goals and must provide close student supervision. WBL does not replace the regular class instruction time. Credit for Cooperative Methodology is awarded in the appropriate related CTE course in which the student is enrolled. Teachers who supervise this experience must hold proper endorsement and have completed the state approved training and internship or state-approved course equivalent.

## PROJECT LEAD THE WAY

Project Lead the Way courses are engaging and thought provoking to encourage students to develop critical thinking skills through hands-on project-based learning, while preparing them to take on real-world challenges. Students will have the opportunity to create, design and build things like robots and cars, while applying what they are learning in math and science to the world's grand challenges

## Aerospace Engineering (PLTW)*

Grade(s) 10, 11, 12
One to three credits/One year
This course explores the evolution of flight, navigation and control, flight fundamentals, aerospace materials, propulsion, space travel, and orbital mechanics. In addition, this course presents alternative applications for aerospace engineering concepts. Students analyze, design, and build aerospace systems. They apply knowledge gained throughout the course in a final presentation about the future of the industry and their professional goals.
*Project Lead the Way

## Biotechnical Engineering (PLTW)*

Grade(s) 11, 12
One to three credits/One year
This course guides students in the exploration of the diverse fields of biotechnology. Hands-on projects engage students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, tissue engineering, biomedical devices, forensics and bioethics. Students apply biological and engineering concepts to design materials and processes that directly measure, repair, improve and extend living systems.
*Project Lead the Way

## Civil Engineering (PLTW)*

Grade(s) 11, 12
One to three credits/One year
This course introduces students to various aspects of civil engineering and architecture and how to apply their knowledge to the design and development of residential and commercial properties and structures. In addition, students use 3D design software to design and document solutions for major course projects. Students communicate and present solutions to their peers and members of a professional community of engineers and architects.
*Project Lead the Way

## Computer Integrated Manufacturing (PLTW)*

Grade(s) 10, 11, 12
One to three credits/One year
This course is designed to teach students to explore how things are made, what processes go into creating products, how assembly lines work, and how has automation changed the face of manufacturing. While students discover the answers to these questions, they are learning about the history of manufacturing, robotics and automation, manufacturing processes, computer modeling, manufacturing equipment, and flexible manufacturing systems.
*Project Lead the Way

## Digital Electronics (PLTW)*

Grade(s) 10, 11, 12
One to three credits/One year
This course is the foundation of all modern electronic devices such as mobile phones, MP3 players, laptop computers, digital cameras and high-definition televisions. Students are introduced to the process of combinational and sequential logic design, engineering standards and technical documentation. This course is designed for 10th or 11th grade students.
*Project Lead the Way

## Engineering Design and Development (PLTW)*

Grade (s) 12
One to three credits/One year
This course introduces students to real world problem solving and teams to design and develop an original solution to a valid openended technical problem by applying the engineering design process. Students perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams design, build, and test their solutions while working closely with industry professionals
who provide mentoring opportunities. Finally, student teams present and defend their original solution to an outside panel.
*Project Lead the Way

## Introduction to Engineering Design (PLTW)*

Grade(s): 9, 10
One to three credits/One year
This course is designed for 9th or 10th grade students. The major focus of IED is the design process and its application. Through handson projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.
*Project Lead the Way

## Principles of Engineering (PLTW)*

Grade(s) 11, 12
One to three credits/One year
This course is designed for 10th or 11 th grade students. This survey course exposes students to major concepts they will encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.
*Project Lead the Way

## TECHNOLOGY ENGINEERING EDUCATION

Technology Engineering Education helps students learn and apply technology to make effective decisions and contribute to a rapidly changing technological society. It trains students in the use of tools, machines, materials, processes and opportunities to apply reading, writing, computing, speaking, and listening skills to practical situations. The Technology Student Association (TSA), an integral part of the instructional program provides Leadership, Service and Connection skills to help all Tennessee teachers and students toward becoming technologically literate citizens.

## Advanced Design Applications

## Grade(s) 11-12

One credit/One year
Prerequisite(s): Completion of Foundations of Technology and Technological Issues
Recommendations: Completion of Algebra 1, Geometry, and Physical Science or enrolled in Geometry

This course is designed as an advanced study for students engaged in academics and general technology studies that lead to the understanding of the development of technology's control and use along with human wants and needs. Students are challenged to use design processes so that they can think, plan, design and create solutions to engineering and technological problems. Students will continue the use of Science, Technology, Engineering, and Mathematics (STEM) and experience creation, synthesis, and presentation of design solutions. Advanced Design Applications is designed to prepare high school students who plan to go on to community college technical education or university level engineering programs.

## Advanced Drafting \& Design

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Computer Aided Drafting I \& II, Algebra I, Geometry, Math and Science requirements should be obtained according to graduation requirements during and prior to the conclusion of the credit.

This course will introduce students to soft learn to use a software program to create engineering drawings including architectural, civil or plan drawings, assembly drawings, welding and process drawings, cross sections, 3D representations, bills of materials and schedules.
Emphasis in this course is on drawings of increasing complexity.

## Advanced Technological Applications

Grade(s) 11-12
One credit/One year
Prerequisite(s): Successful completion of Foundations of Technology and Technological Issues
Recommendations: Completion of Algebra 1, Geometry, and Physical Science or enrolled in Geometry

This course has been designed as an advanced study for students engaged in themed academies and general technology studies that lead to the capacity to understand how technology's development, control and use is based on design constraints, and human wants and needs. The structure of the course challenges students to use design processes so that they can think, plan, design and create solutions to engineering and technological problems.

## Computer Aided Drafting I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I or Math for Technology II; basic experience with graphical computer interface (may be concurrent)
Note: Course will include 9 to 18 weeks of pencil drawings prior to beginning work on computer aided drawing projects.

This course will introduce student to the basic concepts of scale drawings and orthographic projections by making simple two- and three-dimensional drawings using manual drafting tools and Computer Aided Design (CAD). Course content will enable students to make the transition into the use of CAD software by having them make increasingly sophisticated drawings. Student work in teams will culminate in a class project to create a complete set of construction and assembly drawings for a mechanical product.

## Computer Aided Drafting II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Geometry, Computer Aided Drafting I, basic experience with graphical computer interface

This course introduces students to advanced two-dimensional and basic three-dimensional concepts of scale drawings and orthographic projections using a software program. Course content will enable individual students to create increasingly sophisticated drawings using a software program and will culminate in the creation of a complete set of construction and/or assembly drawings for a mechanical project

## Computer Drafting II/Advanced Drafting Design

Grade(s) 11, 12
One to three credits/One year
Recommended Prerequisite(s): Computer Aided Drafting I \& II; Algebra I, Geometry, Math and science requirements should be obtained according to graduation requirements during and prior to the conclusion of the credits. Concurrency is acceptable.

This course will introduce students to using software programs to create engineering drawings including architectural, civil or plan drawings, assembly drawings, welding and process drawings, cross sections, 3D representations, bills of materials and schedules. Emphasis is on drawings of increasing complexity.

## Engineering Design (Can be offered for AP Credit)

## Grade12

One credit/One year
Prerequisite(s): Completion of Foundations of Technology, Technological Issues, Advanced Design Applications or Advanced Technological Applications Recommendations: Completion of Algebra 1, Geometry, Biology or Chemistry and enrolled in Physics and passed English 2 Gateway

This course serves as a capstone or AP level course that will include high school seniors who intend to continue their education in sciences, technology, engineering, or mathematics (STEM) at the post-secondary level, especially a four-five year baccalaureate degree. Students will study engineering concepts and will develop a prototype in teams and defend their project-based design with mathematically, scientific and technological research and data.

Students will participate as members of engineering teams within a typical business organization. Group and individual work will be reflective of authentic engineering projects found in the design world. Student performance will be assessed in numerous and diverse ways. All work will be carefully analyzed as students perform within an authentic engineering enterprise environment.

## Foundations of Technology

Grade(s) 9-12
One credit/One year
Prerequisite(s): Algebra 1 or currently Enrolled in Algebra 1
This course will enable students to understand and apply technological concepts and processes that are the cornerstone for high school technology programs. Group and individual activities will be used to engage students in creating ideas, developing innovations, and engineering practical solutions. It is designed to engage students in exploring and deepening their understanding of engineering and make use of a variety of assessment instruments to reveal the extent of understanding. This course is transition high school level learning experiences that prepare students to understand the design world, engineering design, attributes of design and the core concepts of technology. Foundations of Technology will focus on the following aspects of technology: 1) its evolution, 2) systems, 3) core concepts, 4) design, and 5) utilization.

## Manufacturing Applications

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Principles of Manufacturing, Principles of Machining and Manufacturing, or Principles of Engineering, Algebra I, Algebra II, Geometry

This course is for 11th-12th grade students interested in entering the workforce or pursuing higher education in the manufacturing area.
The course requires students to solve problems in a real-world manufacturing context. Problems address critical areas identified by industry and supported by relevant national standards. The course is structured as a series of simulation units. The simulations require students to identify problems in a manufacturing company based on data supplied in typical management reports. Students work in teams of four to six. Teams test and refine proposed solutions with computer simulations. All teams work on the same problem concurrently. At the end of each unit, students present team findings and recommendations to the class and to a panel of manufacturing industry representatives, which act as the board of directors.

## Principles of Engineering

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Computer Aided Drafting, Algebra I, Geometry, Algebra II

This course explores the nature of engineering and the skills fundamental to all engineering fields, as well as the role of quality assurance and quality control procedures in manufacturing. Emphasis is placed on actual projects and presentations and the use of modern tools (e.g., CAD). The course can be enhanced by cooperation with local manufacturing facilities, which can provide real measurement data and opportunities for on-site visits to witness engineering task and projects, and quality-control data collection.

## Principles of Machining

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
This course focuses on the essential principles that must be mastered for a person to be effective in manufacturing production work. The course is intended for students who are interested in production that integrates machining and engineering. The course covers professional communications with customers, quality principles and processes, systems, information in the workplace, the process of product design to machine parts, and statistical process control. Wherever possible, real-world or simulation hands-on experiences become the context in which instruction is delivered.

## Principles of Machining and Manufacturing

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I
This course focuses on the concepts and practices that support careers in manufacturing, industrial maintenance, metrology, automation, industrial design, or industrial support. The course introduces the technology of machining and manufacturing process. While working as team members, students will apply leadership and
organizational skills relating to designing, producing, and maintaining a product. Emphasis is placed on quality control, codes and standards, and production systems. The course is contextual by design. It connects what is being learned to the learner's current experience, past knowledge, and future conduct. Laboratory exercises provide active and cooperative learning opportunities.

## Principles of Manufacturing

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
This course focuses on the essential principles that must be mastered for a person to be effective in manufacturing production work. The course is intended for students more interested in production than engineering. The course covers customers, quality principles and processes, systems, information in the workplace, the business of manufacturing, and statistical process control. The course is contextual by design. It connects what is being learned to the learner's current experience, past knowledge, and future conduct. Wherever possible, real-world or simulation hands-on experiences become the context in which instruction is delivered.

## Problems and Solutions in Technology

Grade(s) 12
One credit/One year
Prerequisite(s): Completion of Foundations of Technology, Technological Issues and Advanced Design Applications or Advanced Technological Applications
Recommendations: Completion of Algebra 1, Geometry, and Biology or Chemistry

This course is designed to give students the opportunity to synthesize and apply knowledge and skills gained in several courses and apply the skills to new situations. The course integrates mathematics, science, language arts, and social studies competencies in a contextual setting using Project-Based Learning. Students will give an oral presentation of their findings to their peers and their project based industry partner. This culminating research/project report is required to satisfactorily complete this course. In this research course, students develop and apply the knowledge and skills gained in previous courses to identify and resolve relevant problems.

## Technological Design

Grade(s) 10-12
One credit/One year
Prerequisite(s): Completion of Foundations of Technology Recommendations: Completion of Algebra 1 and enrolled in Geometry

This course is designed to introduce students to engineering scope, content, and professional practices that are presented through practical applications. Students in engineering teams apply technology, science, and mathematics concepts and skills to solve engineering design problems and innovate designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. This course is an essential experience for students who are interested in technology, innovation, design, and engineering.

Technological Issues
Grade(s) 10-12
One credit/One year
Prerequisite(s): Completion of Foundations of Technology
Recommendations: Completion of Algebra 1 and enrolled in Geometry

This course continues integrating STEM in problem solving, project based learning, and engineering design helping students develop an understanding of information and communication, construction, manufacturing, and power and energy technologies.
Students are involved in the organized and integrated from designing, developing, using and assessing technological application of technological resources, engineering concepts, and scientific procedures. Students will address issues that stem systems. The development of knowledge and skills regarding recognition, examining, addressing, and predicting is stressed in this course.

## Web Site I - Foundations

Grade(s) 12
One to three credits/One year
Prerequisite(s): Skills in Keyboarding
This course is the first level of Web Page Design, and it prepares students with work-related skills for advancement into postsecondary education or industry. Course content includes exposure to basic Web design and the dynamics of networking/ internetworking, Web hosting and Web design in e-commerce, Web 2.0 technology, social networking, and implementing cloud computing or software as a service. The course content provides students the opportunity to acquire fundamental skills in both theory and practical application of Web design and of leadership and interpersonal skill development. Laboratory facilities and experiences simulate those found in the web Page Design and construction industry.

## Web Page Design II - Site Designer

Grade(s) 12
One to three credits/One year
Prerequisite(s): Information Technology Foundations, Algebra I
Recommended Prerequisite: Web Site I - Foundations
This course is the second level of Web Page Design Concentration, and it prepares students with work-related skills for advancement into post-secondary education or industry. Course content includes exposure to basic and advanced Web design, pixilated and vectorbased Web graphics, Web animations, dynamics of Web hosting, and Web design in eCommerce. The course content provides students the opportunity to acquire fundamental skills in both theory and practical application of Web design and of leadership and interpersonal skill development. Laboratory facilities and experiences simulate those found in the Web page design and Web page construction industry. Further, this course provides for and directly maps to the Certified Internet Webmaster "Site Designer" national certification examination.

## Web Page Design III - eCommerce

Grade(s) 12
One to three credits/One year
Prerequisite(s): Information Technology Foundations, Web Site IFoundations, Web Page Design II - Site Designer, Algebra I Web Page Design III - eCommerce corresponds to the CIW certification "Web eCommerce" which is the second level of Web Page Design

This course prepares students with work-related skills for advancement into post-secondary education or industry. Course content includes exposure to Web design in eCommerce with marketing, customer relations, and commercial Web site publication. The course content provides students the opportunity to acquire fundamental skills in practical application of Web development, leadership, and interpersonal skill development. Laboratory facilities and experiences simulate those found in the Web page design and Web page construction industry.

## TRADE AND INDUSTRIAL EDUCATION

Trade and Industrial Education is instruction planned for the purpose of preparing individuals for employment or further training in a recognized occupation or an emerging occupation in a trade or industrial field. Students develop manipulative skills, safety skills, job judgment, technical knowledge and related instruction to prepare them for entry employment after high school and/or to continue in post-secondary study in their field.

## ARTS \& COMMUNICATION CLUSTERS

## Graphic Communications, Media Technology Animation/

 Simulation and Motion GraphicsGrade(s) 11, 12
One to three credits/One year
Prerequisite(s): Digital Arts and Design I, Digital Arts and Design
II, Digital Arts and Design III
This course builds on foundational elements of visual communication learned in Digital Arts and Design classes. Course content is designed to develop a strong knowledge in animation and software applications, new media graphics and the latest visual communication technologies that are multi-faceted and essential to the industries. Focus will be on developing understandings of key concepts, processes and strategies that will result in realistic animated characters, digital effects, products and environments. Along with creative challenges, students will leverage digital tools to gather, evaluate, and use information, encourage higher order thinking that will translate into focused and innovative animations. Students will explore career opportunities, develop leadership, teamwork, and creative skills that are requisite in many aspects of life and industry. Course content is also related to other pathways.

## Audio Production I

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): Keyboarding Skills
This course is designed to give students the basic knowledge and technical skills needed to prepare them for post-secondary study or entry-level employment in the audio industry. The students will develop the technical skills necessary to operate the equipment to produce a finished audio product in both studio situations and live
performance. Students will develop knowledge of the business of music which will include publishing and promotional issues. They will also study the language of music. In all situations, students will present themselves with integrity and professional behavior.

## Audio Production II

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Keyboarding Skills, Audio Production I
This course is designed to give students the advanced knowledge and technical skills needed to prepare them for post-secondary study or entry level employment in the audio industry. Students will develop skills in which to conduct complete recording sessions as well as building skills in mix-down, mastering, and other post-production techniques. In all situations, students will present themselves with integrity and professional behavior.

## Audio Production III

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Keyboarding Skills, Audio Production I, Audio
Production II

This course is designed to give students the advanced knowledge and technical skills needed to prepare them for post-secondary study or entry-level employment in the audio industry. Students will develop skills in which to conduct complete recording sessions as well as building skills in mix-down, mastering, and other post-production techniques. In all situations, students will present themselves with integrity and professional behavior.

## Audio Production IIIIII

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Keyboarding Skills, Audio Production I, Audio
Production I

This course is designed to give students the advanced knowledge and technical skills needed to prepare them for post- secondary study or entry level employment in the audio industry. Students will develop skills in which to conduct complete recording sessions as well as building skills in mix-down, mastering, and other post-production techniques. In all situations, students will present themselves with integrity and professional behavior.

## Broadcasting I

Grade(s) 9-10
One to three credits/One year
Prerequisite(s): None
This course is the entry-level course designed to prepare students for the media industry. Course content provides a broad-based exposure to audio, video, journalism, and broadcasting within the media industry. Upon completion of this course, students will be prepared to pursue advanced course work in either audio or video technology; journalism; and broadcasting areas.

## Broadcasting II

Grade(s) 10-11
One to three credits/One year
Prerequisite(s): Media Concepts or Instructor's Approval
This course focuses on the broadcasting industry in Radio/TV technologies utilizing simulated and/or real-life projects. This course centers on production of various electronic media production outlets, including commercials, news, music, interactive, and industrial programming. The student will gain valuable insight into the many facets of electronic media production including, but not limited to: concept creation, scripting, sound design, visual design, engineering, editing, budgeting, and production; as well as exploring some of the latest advances in radio technology.

## Broadcasting III

Grade(s) 11-12
One to three credits/One year Prerequisite(s): Broadcasting II

This course focuses on simulated and/or real-life electronic broadcasting media production and management activities. Projects will center on in-house production of newscasts, special events, and original programming. The student will gain valuable insight into both the audio and video sides of the electronic media industry. Course content is composed of scripting, broadcasting, reporting, directing, editing, budgeting, and production, as well as cameras, lights, sound, and set design. This course will explore the latest digital technology and applications, research and future trends in the electronic media industry. Upon completion of this course, students will be prepared to pursue post-secondary education or enter the electronic media industry in an entry-level position.

## Career Management Success

Grade(s) 9-10
One-half credit/One semester

This course provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete Professional Development Program Level I and Level II of Skills USA VICA or other degree programs in other career and technical youth organizations.
Prerequisite(s): None
Note: Career Management Success is required as a part of the Trade and Industrial Education student's concentrator sequence or Technical Path in the Arts \& Communication Cluster.

Digital Arts and Design I
Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
This course provides a foundation in visual communication concepts and design strategies. Course content is designed to foster skills and understanding that are essential in modern digital graphics, motion graphics, publishing, Web, film/video, photography, and animation graphic industries. Focus will be on developing understanding of key design concepts and strategies, along with design challenges that translate into creative communication solutions, which accurately and effectively reach targeted audiences. Along with study of design principles, conceptualization processes and techniques, students will explore various applications of design through extensive study of typography, style, composition, visual elements, color, creative technical software and various problem-solving tasks, that encourages higher order thinking.

Digital Arts and Design II
Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Digital Arts and Design I
This course builds on the foundational core elements of visual communication concepts and design strategies, learned in (Digital Arts and Design I). Course content is designed to foster skills and understanding that are essential in modern digital graphics, motion graphics, publishing, Web, film/video, photography, and animation graphic industries. Focus will be on developing understanding of key design concepts and strategies, along with design challenges that translate into creative communication solutions, which accurately and effectively communicate. Along with continued study of design principles, conceptualization processes and techniques, students will gain mastery of various applications of design through continued study of typography, style, composition, visual elements, color, creative technical software and more focused a problem-solving task that encourages higher order thinking.

## Digital Arts and Design III

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Digital Arts and Design I, Digital Arts and Design II

This course will foster advanced integrated skills that are essential in digital graphics, motion graphics, publishing, Web applications, film/video, photography, and animation graphic industries. Students will be exposed to real world design challenges in a laboratory facility through projects that simulate industry objectives. With the confluence of technologies, visual arts and creative practices have changed dramatically over the past several years. Increasingly, the design studio functions as a dynamic and vital space for learning, exploring, and innovation. Course content is selected to broaden the foundation of design concepts and understanding related to modern communication design.

Digital Arts and Design II/III
Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Digital Arts and Design I
This course will foster advanced integrated skills that are essential in digital graphics, motion graphics, publishing, Web applications, film/video, photography, and animation graphic industries. Students will be exposed to real world design challenges in a laboratory facility through projects that simulate industry objectives. With the confluence of technologies, visual arts and creative practices have changed dramatically over the past several years. Increasingly, the design studio functions as a dynamic and vital space for learning, exploring, and innovation. Negotiating complex relationships, developing communication strategies that leverage new technologies and provide robust opportunities for the application of knowledge, skills, and critical thinking associated with an array of contemporary creative and studio practices is the new industry standard.

## Printing/Graphics Technology I

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): Skills in Keyboarding
This course is the first in a series that prepares students for gainful employment and/or entry into post-secondary education in the printing industry. Content provides the opportunity to acquire marketable skills by examining both the industry and its career opportunities and by developing leadership, teamwork, and industry skills. Laboratory facilities and experiences simulate those found in the graphic communications industry.

## Printing/Graphics Technology II A \& B

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Skills in Keyboarding, Printing/Graphics Technology I
This course prepares students for work related skills and advancement into graphic design and digital imaging and for gainful employment and/or entry into post-secondary education in the graphic communications industry. Content provides student the opportunity to acquire marketable skills in both theory and practical application. Advanced knowledge and skill in the printing industry will be enhanced in a laboratory setting that duplicates the printing industry and offers school/work based learning opportunities.

## CONSTRUCTION CLUSTERS:

## Carpentry, Electrical, HVAC/R, Plumbing, CAD, Welding

## Advanced Drafting \& Design

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Computer Aided Drafting I \& II, Algebra I, Geometry, Math and Science requirements should be obtained according to graduation requirements during and prior to the conclusion of the credits.

This course will introduce students to using software programs to create engineering drawings including architectural, civil or plan drawings, assembly drawings, welding and process drawings, cross sections, 3D representations, bills of materials and schedules. Emphasis in this course is on drawings of increasing complexity.

## Advanced Welding Applications and Certification

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Introduction to Welding, Basic
Principles of Welding, Algebra I (or equivalent), Geometry (or concurrent)

This course is designed to follow Basic Principles of Welding, in which students will learn more advanced techniques and skills related to cutting and welding applications. Welding and cutting skills developed in Introduction to Welding and Basic Principles of Welding will be used to satisfactorily complete a series of industry certification tests. Following the completion of this course, including successful passage of the industry certification tests, the student should be certified as an Entry Level Welder as defined by American Welding Society QC10.

## Basic Principles of Welding

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Construction Core, Introduction to Welding, Algebra I or equivalent (may be concurrent)

This course is designed to follow Introduction to Welding, in which students will learn more advanced skills and knowledge related to cutting and welding applications. Development of welding and cutting skills will be continued in the context of a series of projects. Combined with the third year course, Advanced Applications and Certification, the student should be prepared for Entry Level Welder Certification, as defined by American Welding Society QC10.

Note: *This course may be offered as a part of the Construction or the Manufacturing Sub-Clusters, depending upon the student's career focus. Construction Core is recommended for students in the Construction Sub-Cluster, but it is not required for students in the Manufacturing Sub-Cluster.

## Career Management Success

Grade(s) 9, 10
One-half credit/One semester
Prerequisite(s): None
This course provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete Professional Development Program Level I and Level II of Skills USA or other degree programs in other career and technical youth organizations.

Note: (1) Students should use technology such as word processing, spreadsheet, scheduling, or presentation software to create and present class products whenever possible. (2) This course may be taught by a teacher holding any CTE (vocational) endorsement.

## Carpentry I

Grade (s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Construction Core

This course will introduce students to basic skills and knowledge related to residential and commercial carpentry. Topics covered include wood, metal, and concrete building materials, fasteners, hand and power tools, fabrication based on construction plans, and framing of platform and post and beam structures, in both wood and metal. This course gives students an introduction to the skill and knowledge base typically required for apprentice carpenters.

## Carpentry II

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Carpentry I, Algebra I, Geometry, Physical Science

This course will provide students with substantial skill and knowledge foundation typically required for apprentice carpenters.
Students will extend their skills and knowledge related to residential and commercial carpentry. Topics covered include stairs, installation and trim of windows and doors, installation and repair of gypsum wallboard, advanced site layout, exterior finish work, thermal and moisture protection, and an introduction to welding.

## Computer Aided Drafting I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I or Math for Technology II; basic experience with graphical computer interface (may be concurrent)

This course will introduce students to the basic concepts of scale drawings and orthographic projections by making simple two and three-dimensional drawings using manual drafting tools and Computer Aided Design (CAD). Course content will enable students to make the transition into the use of CAD software by having them make increasingly sophisticated drawings. Student work in teams will
culminate in a class project to create a complete set of construction and assembly drawings for a mechanical product. This course may be offered as a part of the CONSTRUCTION or the MANUFACTURING sub-cluster, depending upon the student's career focus. The prerequisites for this course are the same in both sub-clusters.

Note: Course will include 9 to 18 weeks of pencil drawings prior to beginning work on computer aided drawing projects.

## Computer Aided Drafting II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Geometry, Computer Aided Drafting I, basic
experience with graphical computer interface
This course introduces students to advanced two-dimensional and basic three-dimensional concepts of scale drawings and orthographic projections using a software program. Course content will enable individual students to create increasingly sophisticated drawings using a software program and will culminate in the creation of a complete set of construction and/or assembly drawings for a mechanical project.

This course may be offered as a part of the CONSTRUCTION or the MANUFACTURING sub-cluster, depending upon the student's career focus. The prerequisites for this course are the same in both subclusters.

## Concrete I

Grade (s) 10, 11
One to three credits/One year
Prerequisite(s): Construction Core, Algebra I
This course will introduce students to basic skills and knowledge related to reinforced concrete construction in residential and commercial structures. Topics covered include safe practices; drawing interpretation; composition of concrete; principles of reinforcement; form construction; load analysis; and placing, curing and testing concrete. This course gives students an introduction to the skill and knowledge base typically required for apprentice concrete artisan

## Concrete II

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Concrete I, Algebra I, Geometry, Physical Science

This course will introduce students to a substantial skill and knowledge foundation typically required for apprentice artisans. Concrete II is a course in which students will learn and practice intermediate skills related to reinforced concrete construction in residential and commercial structures. Topics covered include safe practices, advanced construction drawing interpretation and site layout, lightweight concrete, design of concrete mixes, design of reinforced concrete members.

## Construction Core

Grade (s) 9, 10, 11
One-half or one credit/One year
Prerequisite(s): None
This course will introduce students to basic skills and knowledge applicable to all construction trades. Topics covered include safety, construction drawings, site layout, hand and power tools, linear and angular measurements, and application of algebraic and geometric principles to construction problems. (Not recommended for seniors due to pathway and concentrator articulation)

Note: One recommended credit with a minimum of 72.5 hours dedicated to the Construction Core curriculum to meet National Center for Construction Education and Research standards and the Tennessee Department of Education.

## Electrical I

Grade (s) 10, 11
One to three credits/One year
Prerequisite(s): Construction Core, Algebra I
This course is the first level of electrical courses that will provide basic skills and knowledge related to residential and commercial electrical systems. Course content includes leadership development, safe practices, Ohm's law, installing conduit, conductors, residential and commercial electrical systems and services according to National Electrical code (NEC) and local codes. This course gives students an introduction to the skill and knowledge base typically required for apprentice electricians.

## Electrical II

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Electrical I, Algebra I, Geometry, Physical Science
This course provides students a substantial skill and knowledge foundation typically required for apprentice electricians. Students will learn and practice intermediate skills related to electrical systems, with emphasis on commercial systems. Topics covered include overcurrent protection; sizing conductors; lighting systems; three-phase motors; motor control circuits; sizing raceways, boxes, and fittings; and connecting distribution transformers, including a laboratory experience conducted in a shop environment that supports electrical assembly projects by students.

## Heating, Ventilation, Air Conditioning \& Refrigeration I HVAC/R I

Grade (s) 10, 11
One to three credits/One year
Prerequisite(s): Construction Core, Algebra I

This course will introduce students to basic to entry-level skills and knowledge related to residential and commercial heating, ventilation, air conditioning, and refrigeration (HVA/R). Topics covered include tools and equipment, safety, hazards unique to HVAC/R work, physics principles, mechanical refrigeration cycle, and installation and servicing of HVAC/R systems. Course content provides students with skill and knowledge to advance to HVAC/R II. Students completing HVAC/R I will be eligible to take the Core, Type I and Type II technician certification of the EPA Proper Refrigerant Usage and Handling examination

Heating, Ventilation, Air Conditioning \& Refrigeration II HVAC/R II Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core; Algebra I, HVAC/R I, Geometry or technical Geometry, Principles of Technology I or Physical Science

This course will allow students to extend their skills and knowledge related to residential and commercial heating, ventilation, air conditioning, and refrigeration (HVAC/R). Topics covered include electricity, thermodynamics, diagnostic, forced air furnaces, air distribution systems, and heating/cooling load analysis. This course gives students a substantial skill and knowledge foundation typically required for apprentice HVAC/R technicians. Course content provides school based and work based learning opportunities for students. Course content prepares students for entry-level employment, advanced training in HVAC/R, and entry into postsecondary education.

## Introduction to Welding

Grade (s) 9, 10
One credit/One year
Prerequisite(s): Construction Core
This course will introduce students to basics skills and knowledge related to cutting and welding applications. Course content includes safe practices, career research, leadership development, and basic arc welding and thermal cutting skills. Combined with the second and third year courses, Basic Principles of Welding and Welding Applications and Certification, the student should be prepared for Entry Level Welder Certification, as defined by American Welding Society QC10.

Note: *This course may be offered as a part of the Construction or the Manufacturing Sub-Clusters, depending upon the student's career
focus. Construction Core is recommended for students in the Construction Sub-Cluster, but it is not required for students in the Manufacturing Sub-Cluster.

## Masonry I

Grade (s) 10, 11
One to three credits/One year
Prerequisite(s): Construction Core, Algebra I
This course will introduce students to basic skills and knowledge related to masonry construction in residential and commercial structures. Topics covered include safe practices, interpretation of construction drawings, basic laying techniques, masonry reinforcement, arch construction, and accommodations for weather. This course gives students an introduction to the skill and knowledge base typically required for apprentice masons.

## Masonry II

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Masonry I, Algebra I, Geometry, Physical Science

This course provides students a substantial skill and knowledge foundation typically required for apprentice masons. Students will learn and practice intermediate skills related to masonry construction in residential and commercial structures. Topics covered include safe practices, advanced construction drawing interpretation, design of
panel and curtain walls, construction planning, and scheduling.

## Plumbing I

Grade (s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I, Construction Core
This course will introduce students to basic skills and knowledge related to residential and commercial plumbing. Course content includes water distribution processes, installation of hot and cold water systems, and an introduction to drain, waste, vent systems in residential and commercial structures, cutting and fitting pipe, making joints, securing pipe, and roughing in. This course gives students an introduction to the skill and knowledge base typically required for apprentice plumbers.

## Plumbing II

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Plumbing I, Plumbing Lab I, Algebra I, Geometry and Physical Science

This course will allow students to extend their skills and knowledge related to residential and commercial plumbing. Topics covered include physics principles, fuel piping systems, pressure reducers, backflow prevention devices, troubleshooting and repair, DWV piping, vents, and drainage. This course gives students a substantial skill and knowledge foundation typically required for apprentice plumbers.

## HOSPITALITY AND TOURISM CLUSTERS

## Career Management Success

Grade(s) 9-10
One-half credit/One semester
Prerequisite(s): None
Note: Career Management Success is required as a part of the Trade and Industrial Education student's concentrator sequence or Technical Path in the Hospitality and Tourism Cluster.

This course will provide students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete Professional Development Program Level I and Level II of Skills USA or other degree programs in other career and technical youth organizations.

Note: (1) Students should use technology such as word processing, spreadsheet, scheduling, or presentation software to create and present class products whenever possible. (2) This course may be taught by a teacher holding any CTE-certified (vocational) endorsement.

## Culinary Arts I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): None
This course is the first level of Culinary Arts, prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career opportunities and by developing food preparation and service and interpersonal skills. Laboratory facilities and experiences, which simulate commercial food production and service operations, offer school-based learning opportunities.

## Culinary Arts II

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Culinary Arts I
Culinary Arts II, which is the second level of Culinary Arts, prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by demonstrating the principles of safety and sanitation, food preparation skills, and teamwork to manage an environment conducive to quality food production and service operations. Students will participate in laboratory facilities and experiences, which simulate commercial food production and service operations, offer school-based learning and work-based learning opportunities.

## Culinary Arts III

## Grade(s) 12

One to three credits/One year
Prerequisite(s): Culinary Arts II
This course is the third level of Culinary Arts, serves as a capstone course. This course prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to apply the marketable culinary arts skills they have acquired by assuming increasingly responsible positions including participation in a cooperative education experience.

## HUMAN SERVICES CLUSTERS:

## Barbering I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I
This course emphasizes practical skills associated with barbering and state law requirements in preparation for state licensing. The practical skills include facials, chemical services, clipper cutting, manicuring, shampooing, and shaving. Proper work ethics and shop management skills are emphasized throughout the course sequence.

## Barbering II <br> Grade(s) 11, 12 <br> One to three credits/One year <br> Prerequisite(s): Barbering I

This course builds on the skills and applications learned in Barbering I.

## Barbering III

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Barbering I, Barbering II
This course builds on the skills and applications learned in Barbering II.

## Chemistry of Cosmetology

Grade 12
One to three credits/One year
Prerequisite(s): Principles of Cosmetology and Design Principles of Cosmetology

This course, which is the advanced level of cosmetology, prepares students to perform work related services using chemicals in the cosmetology industry. Content provides students the opportunity to acquire foundation skills in both theory and practical applications. Laboratory facilities and experiences will be used to simulate cosmetology work experiences. Students completing this portion of the course of cosmetology will acquire the necessary hours to transfer to a post-secondary course of study to complete the hours needed to be eligible to take the Tennessee State Board of Cosmetology examination for the Tennessee Cosmetology License. Upon completion and acquisition of 300 hours, students are eligible to take the Tennessee State Board of Cosmetology Shampooing examination for a Shampoo Technician License.

## Criminal Justice I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): None
This course is the first level of study of criminal justice careers. It will prepare students for work-related knowledge and skills for advancement into the second level of criminal justice careers. Course content focuses on areas comprised of the three components of the criminal justice system, the police, courts, and corrections. The course is an overview of the criminal justice system and builds a better understanding of the development of laws and history on the state and federal levels. New technology and career opportunities in criminal justice are an integral part of the course content.

## Criminal Justice II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Criminal Justice
This course will offer an in-depth study of criminal justice in which current criminal justice careers issues will be discussed and debated. Local, state, federal, and international laws will be analyzed. Subject matter will include a comparison of the criminal justice careers in the United States with other countries. Students will have opportunities to participate in mock trials and field trips with criminal justice careers
emphasis. Course content will introduce new technology, effects of forensic analysis, and career opportunities. The course content will include information for planning, managing, and providing judicial, criminal justices.

## Criminal Justice III Forensic Science Investigation

Grade(s) 12
One to three credits/One year
Prerequisite(s): Criminal Justice I \& II
This course will provide students with an opportunity to explore the basic processes and principles of forensic science as it relates to criminal investigation. Students will learn the importance of the identification, collection, and processing of evidence and of its contribution to the criminal investigation. Students will learn of the legal responsibilities and challenges which the forensic investigator may encounter from initial response to the court room.

## Criminal Justice II/III

Grade(s) 12
One to three credits/One year
Prerequisite(s): Criminal Justice I
This course will provide students with an opportunity to explore the basic processes and principles of forensic science as it relates to criminal investigation. Students will learn the importance of the identification, collection, and processing of evidence and of its contribution to the criminal investigation. Students will learn of the legal responsibilities and challenges, which the forensic investigator may encounter from initial response to the courtroom.

## Design Principles of Cosmetology

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Principles of Cosmetology
This course, which is the second level of cosmetology, prepares students for work related skills and advancement into the Chemistry of Cosmetology course. Content provides students the opportunity to acquire knowledge and skills in both theory and practical application. Advanced knowledge and skills in hair design, nail artistry, and cosmetic applications will be enhanced in a laboratory setting, which duplicates cosmetology industry standards. Upon completion and acquisition of 300 hours, students are eligible to take the TN Board of Cosmetology Shampoo examination for a Tennessee Shampoo Technician License.

## Principles of Cosmetology

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): None
This course, which is the first level of cosmetology, prepares students with work related skills for advancement into the Design Principles of Cosmetology course. Content provides student the opportunity to acquire basic fundamental skills in both theory and practical applications of leadership and interpersonal skill development. Content stresses safety, environmental issues, and protection of the public and designers as integrated with principles of hair design, nail structure, and cosmetic procedures. Laboratory facilities and experiences simulate those found in the cosmetology industry.

## INFORMATION TECHNOLOGY CLUSTERS

Programming Logic, Computer Systems, Networking, Web Design

## Cabling and Internetworking

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Information Technology Concepts, Computer
Systems, Networking
This course places emphasis on the conceptual and practical skills necessary to design, manage, and diagnose network hardware and software. This course will help prepare students to design, build, and maintain computer networks. The networking sub-cluster will help prepare students for the CompTIA Network + examination (2009 objectives) and cover the Cisco Certified Networking Associates (CCNA) Essentials exam. Mastery of course competencies will prepare students for successful completion of the Network + exam and promote fundamental skills for employment as a Network
Administrator or Network Engineer.

## Computer Systems

Grade(s) 10, 11
One to three credits/One year
Recommended Prerequisite(s): Information Technology Foundations and Algebra I

This course is designed to prepare students with work-related skills and for certification in the information technology industry. Content provides students the opportunity to acquire knowledge and skill in both theory and practical applications pertaining to troubleshooting, replacing, installing, and upgrading computers. Upon completion of the course students will possess a thorough knowledge of modern personal computer hardware. Procedures used in this course will evaluate students in theory and practical applications through written, hands-on and computer based virtual simulations. Successful mastery of the course content will prepare students to concentrate in computer support, which will prepare students with skills in PC repair, diagnostics, and installation to obtain the IT industry standard, CompTIA's A+ certification.

## Information Technology Foundations

Grade(s) 9, 10
One to three credits/One year
Recommended Prerequisite: Skills in Keyboarding
This course is designed to prepare students with work-related skills for advancement in the telecommunication and information technology career paths. Content provides students the opportunity to acquire basic foundational knowledge and skills in both theory and practical applications in direct current, alternating current, and power supply circuits. Course content includes fundamentals of networking concepts for personal computers (PC), determining system requirements, setting up equipment, and performing installation test for the end user. Content provides the opportunity to evaluate and install peripheral devices and become familiar with operating systems. Course content will be delivered through virtual training and hands-on methods. Competencies mastered during this course help prepare students toward acquiring A+ and/or Net+ certification and/or Web design employment.

## IT (Information Technology) Clinical Internship

Grade(s) 12
One to three credits/One year
Prerequisite(s): Written recommendation of the instructor, based on student application and interview. This course may be taken concurrently with one course with approval of the instructor on a case-by-case basis.

This course is designed to be completed in an IT Support environment, such as the student's school, a community-based shop that provides IT Support, or the IT Support department of a local business. This course puts to practical use all of the skills attained in previous courses, and provide students with valuable hands-on experience. This meets the recommended 500 hours of work experience to prepare each student to pass the CompTIAA+ exams, certifying them as industry recognized IT Support technicians. This leads the student directly to a Tennessee Technology Center for postsecondary training, and will recognized at TTC as having completed 485 hours within the CIT program.

## Networking

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Information Technology Concepts, Computer Systems

This course will help prepare students to design, build, and maintain computer networks. Networking is a part of the Arts and Communication Cluster, and it stresses the conceptual and practical skills necessary to design, manage, and diagnose network hardware and software. Course content, which is of the project-base format, allows students to interconnect workstations, peripherals, terminals, servers, and other networking hardware devices creating a typical infrastructure where all components communicate using the same language or protocols. The networking sub-cluster will help prepare students for the CompTIA Network + examination (2009 objectives) and cover the Cisco Certified Networking Associates (CCNA) Essentials exam. Mastery of course competencies will prepare students for successful completion of the Network + exam.

## Programming and Logic I

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Algebra I
This course will help students develop skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increasing complexity. The recommended programming environment is Dr. Scheme, as it permits an emphasis on development of analytic skills rather than any particular language syntax or vocabulary. Emphasis is on actual programming projects, both individual and group. Course content should be repeatedly applied to increasingly complex projects.

## Programming and Logic II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Programming and Logic I
This course will help students develop advanced skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increasing
complexity. The recommended programming environment is Visual Studio; it permits an emphasis on development of analytic skills using a particular language syntax or vocabulary. Emphasis is on actual programming projects, both individual and group. Course content should be repeatedly applied to increasing complex projects.
Advanced topics using DirectX, AI, C\#, and Java are planned.

## Web Site I - Foundations

Grade(s) 12
One to three credits/One year
Prerequisite(s): Skills in Keyboarding
This course is the first level of Web Page Design, and it prepares students with work-related skills for advancement into post-secondary education or industry. Course content includes exposure to basic Web design and the dynamics of networking/internetworking, Web hosting and Web design in e-commerce, Web 2.0 technology, social networking, and implementing cloud computing or software as a service. The course content provides students the opportunity to acquire fundamental skills in both theory and practical application of Web design and of leadership and interpersonal skill development. Laboratory facilities and experiences simulate those found in the web Page Design and construction industry.

## Web Page Design II - Site Designer

Grade(s) 12
One to three credits/One year
Prerequisite(s): Information Technology Foundations, Algebra I
Recommended Prerequisite: Web Site I - Foundations
This course is the second level of Web Page Design Concentration, and it prepares students with work-related skills for advancement into postsecondary education or industry. Course content includes exposure to basic and advanced Web design, pixilated and vector-based Web graphics, Web animations, dynamics of Web hosting, and Web design in eCommerce. The course content provides students the opportunity to acquire fundamental skills in both theory and practical application of Web design and of leadership and interpersonal skill development. Laboratory facilities and experiences simulate those found in the Web page design and Web page construction industry. Further, this course provides for and directly maps to the Certified Internet Webmaster "Site Designer" national certification examination.

## Web Page Design III - eCommerce

Grade(s) 12
One to three credits/One year
Prerequisite(s): Information Technology Foundations, Web Site I Foundations, Web Page Design II - Site Designer, Algebra I

This course corresponds to the CIW certification "Web eCommerce" which is the second level of Web Page Design. This course prepares students with work-related skills for advancement into post-secondary education or industry. Course content includes exposure to Web design in eCommerce with marketing, customer relations, and commercial Web site publication. The course content provides students the opportunity to acquire fundamental skills in practical application of Web development, leadership, and interpersonal skill development. Laboratory facilities and experiences simulate those found in the Web page design and Web page construction industry.

## MANUFACTURING CLUSTERS

Drafting, Electromechanical, Engineering, Machining, Welding

## Advanced Drafting \& Design

Grade (s) 11, 12
One to three credits/One year
Prerequisite(s): Computer Aided Drafting I \& II, Algebra I, Geometry, Math and Science requirements should be obtained according to graduation requirements during and prior to the conclusion of the credits.

This course will introduce students to using a software program to create engineering drawings including architectural, civil or plan drawings, assembly drawings, welding and process drawings, cross sections, 3D representations, bills of materials and schedules. Emphasis in this course is on drawings of increasing complexity.

## Advanced Welding Applications and Certification

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Construction Core, Introduction to Welding, Basic
Principles of Welding, Algebra I (or equivalent), Geometry (or concurrent)

This course is designed to follow Basic Principles of Welding, in which students will learn more advanced techniques and skills related to cutting and welding applications. Welding and cutting skills developed in Introduction to Welding and Basic Principles of Welding will be used to satisfactorily complete a series of industry certification tests. Following the completion of this course, including successful passage of the industry certification tests, the student should be certified as an Entry Level Welder as defined by American Welding Society QC10.

## Basic Principles of Welding

Grade(s) 10, 11
One to three credit/One year
Prerequisite(s): Construction Core, Introduction to Welding, Algebra I or equivalent (may be concurrent)

This course is designed to follow Introduction to Welding, in which students will learn more advanced skills and knowledge related to cutting and welding applications. Development of welding and cutting skills will be continued in the context of a series of projects. Combined with the third year course, Advanced Applications and Certification, the student should be prepared for Entry Level Welder Certification, as defined by American Welding Society QC10.

Note: *This course may be offered as a part of the Construction or the Manufacturing Sub-Clusters, depending upon the student's career focus. Construction Core is recommended for students in the Construction Sub-Cluster, but it is not required for students in the Manufacturing Sub-Cluster.

## Career Management Success

Grade(s) 9, 10
One-half credit/One semester
Prerequisite(s): None
This course (Core Course for Career Clusters) provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and
supported by relevant national standards. All course content is presented in a real world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete Professional Development Program Level I and Level II of Skills USA or other degree programs in other career and technical youth organizations.

Note: (1) Students should use technology such as word processing, spreadsheet, scheduling, or presentation software to create and present class products whenever possible. (2) This course may be taught by a teacher holding any CTE (vocational) endorsement. Career Management Success is required as a part of the Trade and Industrial Education student's concentrator sequence or Technical Path in the MANUFACTURING, CONSTRUCTION, and TRANSPORTATION sub clusters.

## Computer Aided Drafting I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I or Math for Technology II; basic experience with graphical computer interface (may be concurrent)

This course will introduce students to the basic concepts of scale drawings and orthographic projections by making simple two and three-dimensional drawings using manual drafting tools and Computer Aided Design (CAD). Course content will enable students to make the transition into the use of CAD software by having them make increasingly sophisticated drawings. Student work in teams will culminate in a class project to create a complete set of construction and assembly drawings for a mechanical product.

Note: Course will include 9 to 18 weeks of pencil drawings prior to beginning work on computer aided drawing projects. This course may be offered as a part of the CONSTRUCTION or the
MANUFACTURING sub-cluster, depending upon the student's career focus. The prerequisites for this course are the same in both subclusters.

## Computer Aided Drafting II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Geometry, Computer Aided Drafting I, basic experience with graphical computer interface

This course will introduce students to advanced two-dimensional and basic three-dimensional concepts of scale drawings and orthographic projections using a software program. Course content will enable individual students to create increasingly sophisticated drawings using a software program and will culminate in the creation of a complete set of construction and/or assembly drawings for a mechanical project.

Note: This course may be offered as a part of the CONSTRUCTION or the MANUFACTURING sub-cluster, depending upon the student's career focus. The prerequisites for this course are the same in both sub-clusters.

## Digital Electronics

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Recommended Algebra 1
This course will introduce students to constructing and testing fundamental digital logic circuits such as gates, counters, oscillators, and switches. A/D and D/A convertors will be applied to signal processing. Microcontroller programs will be modified and microcontrollers applied to closed-circuit control systems. The course culminates in a group project to create a digital servo control loop. Emphasis is on hands-on activities, real-world equipment, and current technology.

## Electromechanical I

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Algebra I

This course gives students the basic skills and foundational knowledge needed to enter a post-secondary Electromechanical Associates Degree program and prepares students for an electromechanical career within a manufacturing facility. Students will learn and practice introductory skills related to operation and maintenance of electrical, instrumentation, and mechanical (electromechanical) systems found in a typical manufacturing facility. Topics covered include shielded metal arc welding (SMAW), electrical safety and the National Electric Code, Conduit, Conductor splicing/terminating, protection devices, $D C, A C$, grinding, reading electrical sketches, Process Instrument Diagrams and elementary drawings, transformers, AC/DC motors, basic temperature/ pressure/ level instruments, basic troubleshooting, and a laboratory experience for students for all of the topics.

## Electromechanical II

Grade(s) 11, 12
One to three credit/One year
Prerequisite(s): Algebra I, Physical Science, Geometry

This course provides students the intermediate skills and knowledge needed to enter a post-secondary Electromechanical Associates Degree program and prepares students for an electromechanical career within a manufacturing facility.
Students will learn and practice intermediate skills related to operation and maintenance of electrical, instrumentation, and mechanical (electromechanical) systems found in a typical manufacturing facility. Topics covered include basic MIG (metal inert gas) welding, mechanical transmission, piping and auxiliaries, basic hydraulics, basic digital electronics, advanced troubleshooting, smart instrumentation, basic programmable logic controller operation, intro to gear, centrifugal, positive displacement pumps, and a laboratory experience for students for all of the topics.

## Introduction to Electromechanical

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None (Not recommended for seniors due to pathway and concentrator)

This course will introduce students to basic skills and knowledge applicable to all construction trades and the basic electromechanical
skills necessary in a manufacturing facility. Topics covered include safety, construction drawings, site layout, hand and power tools, linear and angular measurements, and application of algebraic and geometric principles to construction problems.

## Introduction to Welding

Grade (s) 9, 10
One credit/One year
Prerequisite(s): Construction Core
This course will introduce students to the basic skills and knowledge related to cutting and welding applications. Course content includes safe practices, career research, leadership development, and basic arc welding and thermal cutting skills. Combined with the second and third year courses, Basic Principles of Welding and Welding Applications and Certification, the student should be prepared for Entry Level Welder Certification, as defined by American Welding Society QC10.

Note: *This course may be offered as a part of the Construction or the Manufacturing Sub-Clusters, depending upon the student's career focus. Construction Core is recommended for students in the Construction Sub-Cluster, but it is not required for students in the Manufacturing Sub-Cluster.

## Manufacturing Applications

Grade 11, 12
One to three credits/One year
Prerequisite(s): Principles of Manufacturing, Principles of Machining and Manufacturing, or Principles of Engineering, Algebra I, Algebra II, Geometry

This course is for 11 th-12th grade course for students interested in entering the workforce or pursuing higher education in the manufacturing area. The course requires students to solve problems in a real-world manufacturing context. Problems address critical areas identified by industry and supported by relevant national standards. The course is structured as a series of simulation units that require students to identify problems in a manufacturing company based on data supplied in typical management reports. At the end of each unit, students present team findings and recommendations to the class and to a panel of manufacturing industry representatives, which act as the board of directors.

## Principles of Engineering

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Computer Aided Drafting, Algebra I, Geometry, Algebra II

This course allows students to explore the nature of engineering and the skills fundamental to all engineering fields, as well as the role of quality assurance and quality control procedures in manufacturing. Emphasis is placed on actual projects and presentations and the use of modern tools (e.g., CAD). The course can be enhanced by cooperation with local manufacturing facilities, which can provide real measurement data and opportunities for on-site visits to witness engineering task and projects, and quality-control data collection.

Principles of Machining
Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
This course focuses on the essential principles that must be mastered for a person to be effective in manufacturing production work. The course is intended for students who are interested in production that integrates machining and engineering. The course covers professional communications with customers, quality principles and processes, systems, information in the workplace, the process of product design to machine parts, and statistical process control. The course is contextual by design. It connects what is being learned to the learner's current experience, past knowledge, and future conduct. Wherever possible, real-world or simulation hands-on experiences become the context in which instruction is delivered.

## Principles of Machining and Manufacturing

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Algebra I
This course focuses on the concepts and practices that support careers in manufacturing, industrial maintenance, metrology, automation, industrial design, or industrial support. The course introduces the technology of machining and manufacturing process. While working as team members, students will apply leadership and organizational skills relating to designing, producing, and maintaining a product. Emphasis is placed on quality control, codes and standards, and production systems. The course is contextual by design. It connects what is being learned to the learner's current experience, past knowledge, and future conduct. Laboratory exercises provide active and cooperative learning opportunities.

## Principles of Manufacturing

Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
The Principles of Manufacturing course focuses on the essential principles that must be mastered for a person to be effective in manufacturing production work. The course is intended for students more interested in production than engineering. The course covers customers, quality principles and processes, systems, information in the workplace, the business of manufacturing, and statistical process control. The course is contextual by design. It connects what is being learned to the learner's current experience, past knowledge, and future conduct. Wherever possible, real-world or simulation hands-on experiences become the context in which instruction is delivered.

The MANUFACTURING CLUSTER requires at least one credit in Principles of Manufacturing.

## TRANSPORTATION CLUSTERS <br> Automotive Service, Collision Repair, Diesel, Aviation Maintenance, Pilot Ground School, <br> 2-4 Cycle Engine, Distribution and Logistics

## 2-4 Cycle Engine I

Grade(s) 10
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I or Math for Technology II (may be concurrent)

This course prepares students for entry-level positions or advanced training in $2 \& 4$ cycle engines. Course content focuses on 2 \& 4 cycle engines used on motorcycles, all-terrain vehicles (ATV), Jet skis, outboard motors, garden equipment, and outdoor power equipment and vehicles. Students will perform inspections, test, and measurements for diagnosis and perform needed repairs. Education and experience simulate small engine industry operations through the use of training aids and modules and offer school-based and work based learning opportunities. Provide training for a 2 \& 4 cycle engine certification from Equipment and Engine Training Council (EETC).

Note: Standards 1 through 7 apply for 1 credit. Standards 8 through 9 apply for an additional 1 credit. Standards 8 through 9 apply to outboard engine service technology.

## 2-4 Cycle Engine II

Grade(s) 11
One to three credits/One year
Prerequisite(s): Transportation Core, 2 \& 4 Cycle Engines I, Algebra I
or Math for Technology II (May be concurrent)
This course prepares students for entry-level positions or advanced training in $2 \& 4$ cycle engines. Course content focuses on 2 \& 4 cycle engines used on motorcycles, all-terrain vehicles (ATV), Jet skis, outboard motors, garden equipment, and outdoor power equipment and vehicles. Students will perform inspections, test, and measurements for diagnosis and perform needed repairs. Education and experience simulate small engine industry operations through the use of training aids and modules and offer school-based and work based learning opportunities. Provide training for a 2 \& 4 cycle engine certification from Equipment and Engine Training Council (EETC).
Note: Standards 1 through 8 are for 1 credit. Standard 9 is for additional 1 credit.

## 2-4 Cycle Engine III

Grade(s) 12
One to three credits/One year
Prerequisite(s): Transportation Core, 2 \& 4 Cycle Engines I, 2 \& 4
Cycle Engines II, Algebra I or Math for Technology II (may be concurrent)

This course prepares students for entry-level positions or advanced training in $2 \& 4$ cycle engines. Course content focuses on 2 \& 4 cycle engines used on motorcycles, all-terrain vehicles (ATV), Jet skis, outboard motors, garden equipment, and outdoor power equipment and vehicles. Students will perform inspections, test, and measurements for diagnosis and perform needed repairs. Education and experience simulate small engine industry operations through the use of training aids and modules and offer school-based and work based learning opportunities. Provide training for a 2 \& 4 cycle engine
certification from Equipment and Engine Training Council (EETC).

## Automotive: Brake Systems

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I, Physical Science or Principles of Technology I (may be concurrent)
Requirement: A minimum of 105 hours must be dedicated to brake systems to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course offers training in the diagnosis and repair of hydraulic, mechanical, and electrical/electronic brake control systems used in standard brake and traction control systems. Course content includes diagnostic, repair, and/or service technology of hydraulic and electronic brake control brake systems to original equipment manufacturer (OEM) specifications. Educational experiences simulate automotive service industry operations through training aids, laboratory facilities, and school based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Brakes certification test, for entry-level placement in the workforce, and for entry into post-secondary education.

## Automotive: Suspension and Steering

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I, Physical Science (may be concurrent)

Requirement: A minimum of 95 hours must be dedicated to suspension and steering to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course prepares students for entry-level positions or advanced training in automotive suspension and steering systems. The course material covers the principles of automotive suspension/steering systems and four-wheel suspension alignments. Course content provides the student the opportunity to acquire marketable skills by training in wheel alignment and the testing, diagnosis, and repair of suspension and steering systems. Lab facilities and experiences simulate automotive service industry operations through the use of training aids and modules and school based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Suspension and Steering test.

## Automotive: Electrical/Electronics

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Brakes, Suspension and Steering, Algebra I, Physical Science (may be concurrent) Requirement: A minimum of 230 hours must be dedicated to electrical and electronic to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course prepares students for entry-level positions or advanced training in automotive electrical and electronic systems. Students apply principles of electronics to automotive technology and develop diagnostic skills. The course provides students the opportunity to acquire marketable skills by training in the use of digital and analog volt-meters, ohmmeters, and amp meters; as well as oscilloscopes, test lights, load testers and specialized electrical test equipment.

Education experiences simulate automotive service industry operations through the use of training aids and modules and school based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Electrical and Electronics certification.

## Automotive: Engine Performance

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Brakes, Suspension and Steering, Algebra I, Physical Science (may be concurrent)

Requirement: A minimum of 220 hours must be dedicated to engine performance to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course prepares students for entry level positions or advanced training in engine performance. The course covers electronic ignition and distributor ignition systems, fuel management, exhaust emission control, and computer input and output signals and will identify the different types of sensors used by automotive engine computers. Students will perform inspections, tests, and measurements for diagnosis and perform needed repairs. Education and experiences simulate automotive service industry operations through the use training aids and modules and offer school based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Brakes certification test, for entry level placement in the workforce, and for entry into post-secondary education.

## Aviation Maintenance I

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Algebra I, Physical Science
This course offers the general aviation maintenance content common to Airframe and Powerplant Maintenance Technology. The course prepares students for Aviation Maintenance II and subsequent gainful employment or further study leading to Federal Aviation Administration (FAA) certification in Airframe and/or Powerplant certification. Students are introduced to career opportunities and paths within the Aviation Maintenance Industry. Course content includes mathematics and basic physics as applied to aviation, basic aerodynamics, aircraft structures, sheet metal, aircraft wood and fabric, avionics, assembly and rigging of rotary wing aircraft, aircraft inspections and all Federal Aviation Administration (FAA) Regulations that govern technicians. Federal Aviation Administration (FAA) Regulations require 380 contact hours in Maintenance toward Airframe or Powerplant certification.

## Aviation Maintenance II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Aviation Maintenance I, Algebra I, Physical Science
This course continues the general aviation maintenance content begun in Aviation Maintenance I. The course prepares students for gainful employment or further study leading to Federal Aviation Administration (FAA) certification in Airframe and/or Powerplant certification. Course content includes sheet metal, aircraft wood and fabric, avionics, assembly and rigging of rotary wing aircraft, aircraft inspections and a review of all Federal Aviation Administration (FAA) Regulations that
govern technicians.

## Career Management Success

Grade(s) 9, 10
One-half credit/One semester
Prerequisite(s): None

This course provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete Professional Development Program Level I and Level II of Skills USA or other degree programs in other career and technical youth organizations.

Note: (1) Students should use technology such as word processing, spreadsheet, scheduling, or presentation software to create and present class products whenever possible. (2) This course may be taught by a teacher holding any CTE-certified (vocational) endorsement. Career Management Success is required as a part of the Trade and Industrial Education student's concentrator sequence or Technical Path in the MANUFACTURING, CONSTRUCTION, and TRANSPORTATION sub clusters.

## Collision Repair: Non-Structural

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I Physical Science, Principles of Welding (100 hours) (may be concurrent)

Requirement: A minimum of 300 hours must be dedicated to nonstructural analysis and damage repair without MIG welding. 375 hours with MIG welding to meet minimum standards set by NATEF and the Tennessee Department of Education.
This course prepares students to analyze non-structural collision damage to a vehicle, determine the extent of the direction of impact, initiate an appropriate repair plan, and correctly use equipment to fit metal to a specified dimension within tolerances. Course content includes metal finishing, body filling, and glass panel replacements. The course prepares students for entry-level employment and advanced training in collision repair technology, and post-secondary education. Students completing the Collision Repair: Non Structural course are eligible to take the ASE written examination for Nonstructural Analysis and Damage Repair.

## Collision Repair: Structural

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Collision Non-Structural, Algebra I, Physical Science or Principles of Technology I, Principles of Welding (100 hours) (may be concurrent)
Requirement: A minimum of 260 hours must be dedicated to structural analysis and damage repair with MIG welding or a minimum of 185 hours without MIG welding if 75 hours already earned in NonStructural to meet standards set by NATEF.
Notes: Course is aligned with NATEF tasks list for Collision Repair and Refinish. Items have been organized based on the requirements
of the state-required course description format. NATEF tasks are referenced with the corresponding Performance Standards.
This course prepares students to analyze structural collision damage to a vehicle, determine the extent of the damage and the direction of impact, initiate an appropriate repair plan, and correctly uses equipment to fit metal to a specified dimension within tolerances. Course content includes repairs to vehicle frames and glass. The course prepares students for entry-level employment and advanced training in collision repair technology, and post-secondary education. Students completing the Collision Repair: Structural are eligible to take the ASE written examination for Structural Analysis and Damage Repair.

## Collision Repair: Painting and Refinishing

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Non-Structural, Structural, Algebra I, Physical Science (may be concurrent)

Requirement: A minimum of 300 hours must be dedicated to Painting and Refinishing to meet minimum Standards set by NATEF and the Tennessee Department of Education.

This course prepares students to use plastics and adhesives in the repair and refinish processes and to apply automotive paint to a vehicle. Students will learn to diagnose automotive paint finish problems and to perform the appropriate manufacturer required techniques and processes to refinish the affected area or the complete vehicle. Course content provides the student with training in mixing, matching, and applying paint and finishing to vehicles. Course content includes the application of plastics and adhesives in the repair and refinishing processes. The course prepares students for entry level employment and advanced training in collision repair technology, and post-secondary education. Students completing Painting and Refinishing are eligible to take the ASE written examination for Painting and Refinishing.

## Diesel: Electrical/Electronics

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I or Math for Technology II, Physical Science (may be concurrent)
Required: A minimum of 210 hours must be dedicated to diesel electrical/electronic systems to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course offers training in the diagnosis and repair of the electrical systems of medium and heavy trucks. Students apply principles of electricity and electronics to diesel technology and develop diagnostic skills. The course provides training in the use of electrical test equipment such as digital multimeters (DMM) and ammeters. Course content prepares students for entry level employment in diesel electrical and electronics, continuing education in diesel technology and post-secondary education. Students completing the Diesel Electronics course will be eligible to take the ASE written examination for Electrical and Electronics in Medium/Heavy Trucks.

## Diesel: Engine

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Diesel Technology: Electronic Systems, Technical Algebra, Physical Science
Required: A minimum of 215 hours must be dedicated to diesel engine to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course offers training in the testing and repairing of diesel engines and related systems. The course introduces fundamental principles of diesel engine operation. Students will learn to perform inspections, tests, measurements for diagnosis, and to perform needed repairs. Course content prepares students to continue in post-secondary education, for advanced training in diesel service technology, for entry level employment in diesel engine repair and to take the ASE written test for Diesel Engine.

## Diesel: Preventive Maintenance

Grade(s) 10, 11, 12
One to three credits/One year
Prerequisite(s): Transportation Core, Algebra I or Math for
Technology II, Physical Science (may be concurrent)
Required: A minimum of 105 hours must be dedicated to diesel preventive maintenance to meet minimum standards set by NATEF and the Tennessee Department of Education.

This course offers training in the inspection and servicing of heavy trucks. The course introduces students to proper procedures and practices for preventive maintenance and servicing. Students will learn to perform entry level technician inspection tasks. Students upon completion of the course will be eligible to take the ASE (Automotive Service Excellence) examination for Heavy Truck Preventive Maintenance.

## Introduction to Aerospace

Grade(s) 11, 12
One credit/One year
Prerequisite(s): Transportation Core
This course introduces student to the knowledge and procedures required for the ground school (knowledge) portion of the Federal Aviation Administration (FAA) private pilot license examination. Students explore the history of aviation, career opportunities and paths within aviation, and the regulations governing those careers. The course also introduces principles of aeronautical decision-making, airplane systems, and aerodynamics while preparing students for the course in Flight Theory. Course content prepares students for postsecondary education and advancement in the aerospace industry.

## Maintenance and Light Repair I

Grade(s) 10, 12
One to three credits/One year
Prerequisite(s): None
This course allows student to explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing all of the Maintenance and Light Repair courses,
students may enter automotive service industry as an ASE Certified MLR Technician.

## Maintenance and Light Repair II

Grade(s) 11, 12
One to three credits/One year
Recommended Prerequisite: MLR I
This course introduces students to the study of automotive general electrical systems, starting and charging systems, batteries, lighting, and electrical accessories. Upon completing all of the Maintenance and Light Repair courses, students may enter automotive service industry as an ASE Certified MLR Technician.

## Maintenance and Light Repair III

Grade(s) 11, 12
One to three credits/One year
Recommended Prerequisite: MLR I and II
This course introduces students to the study and service of suspension and steering systems and brake systems. Upon completing all of the Maintenance and Light Repair courses, students may enter automotive service industry as an ASE Certified MLR Technician.

## Maintenance and Light Repair IV

Grade(s) 11, 12
One to three credits/One year
Recommended Prerequisite: MLR I, II, and III
This course introduces students to the process of servicing automotive HVAC systems, engine performance systems, automatic and manual transmission/transaxle systems, and practice workplace soft skills. Upon completing all of the Maintenance and Light Repair courses, students may enter automotive service industry as an ASE Certified MLR Technician.

Principles of Transportation, Distribution, and Logistics
Grade(s) 9, 10
One to three credits/One year
Prerequisite(s): None
This course prepares students for entry into Logistics and Warehouse Distribution career field. Students explore career opportunities and requirements to certify as a Certified Logistics Associate. Course content emphasizes beginning logistics, warehousing skills, and workplace success skills. Students study safety, tools, equipment, and basic operations of warehousing and supply chain management. This program prepares students for employment in occupations, such as Logistics Planner, Inventory Control Manager, Order Fulfillment Supervisor, Warehouse Manager, Materials Manager, and Receiving/Shipping Supervisor. Students gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the logistics of warehousing and transportation systems. Students should apply knowledge and skills in the application, design, and production of technology as it relates to the transportation, distribution, and logistics industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

## Theory of Flight

## Grade(s) 11-12

One credit/One year

Prerequisite(s): Transportation Core, Introduction to Aerospace

This course continues and completes the presentation of knowledge and procedures required for the ground school (knowledge) portion of the Federal Aviation Administration (FAA) private pilot license, begun in Introduction to Aerospace. Students will explore the flight environment and weather formation and assess how weather data and other factors impact safety and flight operations. The course also covers Federal Aviation Administration (FAA) regulations affecting private pilot operations; predicting aircraft performance, weight, and balance; types of navigation in pilotage and dead reckoning; aviation physiology and aeronautical decision making; and cross country flying.

## Transportation Core

Grade(s) 9, 10
One credit/One year
Prerequisite(s): None
This course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course, students may enter automotive service technology, diesel equipment maintenance technology, 2-4 cycle service technology, collision repair, and refinish technology, or aviation maintenance. Hours earned in the Transportation Core course may be used toward meeting NATEF standards.

## Warehouse and Distribution I

Grade(s) 10, 11
One to three credits/One year
Prerequisite(s): Principles of Transportation, Distribution, and Logistics
This course prepares students for entry into Warehouse and Distribution career field. Students explore career opportunities and requirements to certify as a Certified Logistics Associate. Course content emphasizes beginning logistics, warehousing skills, and workplace success management. This program prepares students for employment in occupations such as: Logistics Planner, Inventory Control Manager, Order Fulfilment Supervisor, Warehouse Manager, Materials Manager, and Receiving/shipping supervisor.

## Warehouse and Distribution II

Grade(s) 11, 12
One to three credits/One year
Prerequisite(s): Principles of Transportation, Distribution, and Logistics, Warehouse and Distribution I

This course prepares students for entry into Warehouse and Distribution career field. Students explore career opportunities and requirements to certify as a Certified Logistics Associate. Course content emphasizes beginning logistics, warehousing skills, and workplace success skills. Students study safety, tools, equipment, and basic operations of warehousing and supply chain management. This program prepares students for employment in occupations such as: Logistics Planner, Inventory Control Manager, Order Fulfillment Supervisor, Warehouse Manager, Materials Manager, and Receiving/ Shipping supervisor.


MATH Requirement includes enrollment in each year of high school. See Math Requirements in Guide.

| Algebra I |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Algebra II |  |  |  |  |  |
| Geometry/Other |  |  |  |  |  |
| Upper/Bridge |  |  |  |  |  |

## SCIENCE requires 3 credit hours

| Lab Science |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Biology |  |  |  |  | 3 |
| Chemistry or Physics |  |  |  |  |  |

SOCIAL STUDIES requires $\mathbf{3}$ credits and PERSONAL FINANCE requires . 5 credit

| World Geography or |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| World History |  |  |  |  |  |
| U.S. History |  |  |  |  |  |
| U.S. Government .5 |  |  |  |  |  |
| Economics .5 |  |  |  |  |  |
| Personal Finance .5 |  |  |  |  |  |

WELLNESS and PHYSICAL EDUCATION require 1.5 credits

| Wellness |  |  |  | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Physical Ed. .5 |  |  |  |  | .5 |

WORLD LANGUAGE requires 2 credits in the same language. FINE ARTS requires 1 credit

| World Language I |  |  |  |  | 2 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| World Language II |  |  |  |  |  |
| Fine Arts |  |  |  |  | 1 |

ELECTIVE FOCUS requires 3 credits in one content area in approved areas as follows:
Careers \& Technology, Science \& Math, Humanities, Fine Arts, AP/IB, Dual Enrollment, ROTC, PE, College Readiness, Career Readiness


Additional Experiences Required by SCS for Graduation. Enter course or experience below.
Counselor Signature/Date
Computer Experience
Notes:

Please refer to "Student Guide to Secondary Education" for a complete description of all requirements and information on course substitutions including course accommodations for SPED.


[^0]:    Advanced Placement (AP) French Language Advanced Placement (AP) German Language Advanced Placement (AP) Spanish Language
    Grade 12
    One credit/One year
    Prerequisite(s): Honors Level III required (Level III honors preferred) with a minimum average of a $B$. Students may be admitted to $A P$ language courses with the prior approval by the World Language

