

WEST HIGH SCHOOL PROGRAM OF STUDIES



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KNOX COUNTY POLICIES/PROCEDURES

EARNING CREDITS

HIGH SCHOOL CREDIT EARNED IN MIDDLE SCHOOL

- Students in middle school who successfully complete a course and the EOC in a class taught using the high school curriculum standards will earn high school credit. The grade earned will be calculated in the high school GPA.
- Students who attended a private middle school OR students who attended a public middle school whose academic record/transcript indicates a high school course was taken in middle school will receive credit following the procedure below.
- We honor the sending school district's policy if it is an accredited school.

PROCEDURE

If no middle school transcript exists, contact the middle school and request documentation of the high school course completed and the grade earned. If a middle school transcript does exist, but does not indicate high school credit, contact the middle school and verify that the course was, in fact, a high school course. If determination is made that a student does not receive high school credit, a parent may request that the student be tested in order to receive that credit. The credit earned will be pass/fail.

A student must take a Knox County EOC and receive a passing score as listed below:

- The subject area department chair at the high school will provide to the high school counselor an EOC review or in the case of Algebra I, SPI's and practice questions.
- The high school counselor will test and proctor, and the subject area department chair will grade exam.
- Upon receiving documentation from the subject area department chair, the high school registrar or school counselor will enter the course and grade in the student's academic history in Building 9000, semester 1 of the 9th grade year, and file a copy of the documentation in the student CR.
- The grade awarded will be the grade earned in the middle school.

HIGH SCHOOL CREDIT-BEARING COURSES EARNED IN KNOX COUNTY MIDDLE SCHOOLS

The following high school credit-bearing courses may be offered for eighth grade students per availability in the school:

- Honors Algebra
- Honors Geometry, Honors Algebra II, Honors Physical Science,
- Honors Biology, and
- World Languages (Spanish I, French I, German I and Latin I)

Any student enrolled in Algebra I Honors and Honors Biology must take the state-mandated End-of- Course (EOC) assessment during the spring semester.

In computing the numerical grades for honors courses, three (3) additional points shall be added to the semester average.

If an eighth grade student does not receive the credit, the Honors Algebra I coursework for the failed semester must be repeated at the high school level. **The state high school policy requires students to take a mathematics course each year while in high school to complete a four credit core.**

COURSE PRE-REQUISITES

Many KCS courses have prerequisites. These prerequisites must be honored unless a student petitions and the ensuing conversations with a school counselor indicate that an exception should be made. This exception will be based on the student data and/or the student's Individualized Education Plan (IEP).

ENROLLMENT IN OFF-CAMPUS COURSES

The Dual Enrollment Agreement provides an opportunity for students to earn college credit while enrolled in high school. This may include on campus, off campus, and summer time work. For more information on Dual Enrollment please contact the counseling department at each zoned school.

MULTIPLE PATHWAYS TO GRADUATION THROUGH NON-TRADITIONAL MODELS

Information regarding the following schools can be found on the linked websites:

- L&N STEM Academy: <http://lnstemac.knoxschools.org/>
- Paul Kelley Volunteer Academy: <http://kelleyvolunteerac.knoxschools.org/>
- Career Magnet Academy: <http://www.knoxschools.org/careermagnet>
- Adult Evening School

Other Non-Traditional Schools

Non-traditional schools fit individual student needs while offering programs from a variety of avenues. Each school offers unique learning opportunities tailored to meet the needs of motivated and responsible students in a non-traditional school setting. The non-traditional schools are:

- Richard Yoakley Alternative School
- Ridgedale Alternative
- Knoxville Adaptive Education Center

REPEATING FAILED COURSES

Courses previously failed may be repeated in summer school or during the regular school year. Courses passed within a sequential subject may not be repeated after the student has received a passing semester grade in the next course. (For example: The student may not repeat Spanish I after receiving a passing grade in the first semester of Spanish II.)

Courses passed with a grade of “B” or better may not be repeated in summer school. A passing grade of “C” or lower may be repeated with principal approval.

COMPUTATION OF CREDITS AND GRADE POINTS

When a course is repeated, the higher of the two (2) grades shall be computed and all course attempts show on transcripts as part of the accumulated grade-point average.

The numerical grades earned in middle school courses taken for high school credit will appear on the student’s high school transcript and will be calculated in the student’s cumulative grade point average (GPA).

NEW CREDIT

Students who wish to supplement their traditional program may earn first time credit through e-learning, summer school, or Dual Enrollment. Students desiring to earn new credit must have the approval of the Principal.

ONLINE LEARNING (NEW/RECOVERY CREDIT)

Preparing To Assign A Student To Online Learning (New/Recovery Credit)

- The counselor will determine which students need new/recovery credit.
- When that determination is made, a meeting will be held. The meeting will include the counselor, an administrator, and the student. A parent and/or teacher may also be included. The meeting may be with individual students or groups of students as determined by administrator and/or counselor.
- As a result of this meeting, a decision will be made as to whether or not the student will be assigned to recovery credit.

Other considerations would include:

- Is the student taking recovery credit as a new or old credit?
- Has the student already taken the state EOC (if applicable)?
- Does this student possess skills to assist him in being successful in recovery credit or should he simply be enrolled to repeat the class?
- Student should sign a contract.
- **Student athletes who intend to compete at the collegiate level should not take recovery credit; instead, they should repeat the class in the regular classroom setting.**
- The ONLY grade a student brings to recovery credit is the STATE EOC (if taken).
- The same rules apply if Night Alternative Program students are enrolled in recovery credit.

- Recovery credit for half credit-students who enter KCS from a school system that awards half credits will be allowed to use recovery credit in order to earn the additional half credit to complete the course. The student must attempt a pre-test for every module of the course. He will then complete all course modules and quizzes for which he has not tested out as well as take the end of course test after completion of all modules.

State EOCs

- If a student has already taken the state EOC and made a 65 or above, that score may be used as 25% of his recovery credit grade.
- Counselors would be responsible in locating that information. Office of Research Accountability and Assessment will assist in finding those who are hard to locate.
- If there is no EOC score on record, the student would be required to take the EOC.
- Students failing the EOC with a score of less than 65, would not take the EOC; instead, he would take a “mastery test” to determine the 25% of the grade. Only school principal will have access to “mastery tests.”

Local EOCs

- On courses for which a local EOC is given, students will not repeat the local EOC. Students will take a mastery test to meet the local EOC requirements.
- Instead, they would take the local EOC “mastery test” which again would be available by Knox County Schools.

End-Of-Term Testing

- All students are expected to take a final exam at the end of each term for every course they are take.
- If the student has finished 80% of the course work, an EOC will be taken.
- If the student has finished less than 80% of the course work, the teacher and student will set a date by which time the test must be taken. An “F” will be recorded IF a student is taking recovery credit for NEW credit and not completed 80% of the course work at the end of the term. The grade may be changed at a later date once the student has completed the work and taken the EOC.
- If this occurs in a course with a STATE EOC, the same rules apply- 80% of the course work MUST be complete before the state EOC can be taken.
- For the non-STATE EOC course, students will take a “mastery test” upon completion of the course work.
- Each student’s progress will be evaluated at the end of each term to decide if student should continue in recovery credit. Students may be removed from recovery credit if they are not making adequate progress.
- Schools may choose to monitor student progress throughout the semester.

New Vs. Old Credit

- If a student fails a class with an average of 50 or below, that student may be placed in a regular class OR he may be placed in recovery credit for NEW credit. This student CANNOT take the pre-test and opt out of any of the course. When taking a course for new credit, the student must complete it from beginning to end.
- If a student fails a class with an average above 50, he will be placed in recovery credit. He will then take the pre-test to determine gaps in learning OR the student has the option of taking recovery credit for new or old credit. This student will need some guidance in making this decision.

Grading Recovery Credit

- Activity quiz and lesson quiz averages will be used to determine student's grade.
- Progress report can be used to monitor progress and follow up with student. **Grade Classifications:**
- State Guidelines require that LEAs establish a grading formula that includes the original failing grade in the calculation of the final recovery credit grade.
- Final Grade = (.25) Original Grade, (.50) Average of Odyssey Scores, (.25) EOC (State or Local)

HONORS & ACCELERATED COURSES

HONORS COURSES

Local education agencies may elect to offer honors courses. Local education agencies electing to offer honors courses will ensure that the approved honors courses substantially exceed the content standards, learning expectations, and performance indicators as approved by the State Board of Education. Further, each local education agency offering honors courses will ensure that additional rigor is being provided by implementing the framework of standards for honors courses listed below.

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 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, power point presentations, 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.
- Examples of mode include narrative, descriptive, persuasive, expository, and expressive.
- Examples of purpose include to inform, entertain, and persuade.
- 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 which connect class study to the world of work.

All course types which meet the above framework will be classified as honors, eligible for additional percentage point weighting.

If honors courses and courses that offer National Industry Certification are offered, the local education agency shall annually approve the list of such courses. This list of National Industry Certification courses and of approved honors courses with a complete syllabus for each course shall be approved by the local education agency and made readily available to the public.

ADVANCED PLACEMENT (AP) PROGRAM

A cooperative educational endeavor between secondary schools and colleges/universities, the Advanced Placement (AP) Program allows students to experience rigorous college-level courses while still in high school. AP course guidelines have been developed and published by the College Board in more than thirty courses. Based on their performance on the AP exams in May, students may earn advanced placement and/ or credit at a college or university, depending on their recognition policies.

To ensure that AP courses meet or exceed expectations established by college and university faculty, each AP teacher must submit a course syllabus to the College Board for approval through the AP Course Audit process. Only authorized courses may be listed as “AP” on student transcripts.

INTERNATIONAL BACCALAUREATE (IB) PROGRAMMES

The IB Organization offers three programmes: Primary Years Programme (PYP) for students, aged 3-12; Middle Years Programme (MYP) for students, aged 11-16; Diploma Programme (DP) for juniors and seniors in high school. Through these programmes of study, students develop Learner Profile characteristics that promote informed, active, and responsible participation in our changing world. The IB Diploma is a qualification recognized by the world’s leading universities.

Schools authorized to implement an IB programme have participated in an arduous application process. The following Knox County Schools are authorized IB schools:

- Diploma Programmes: West High School
- Middle Years Programmes: West High School
- Middle Years Programmes: Bearden Middle School

DUAL ENROLLMENT

The Dual Enrollment Agreement provides an opportunity for students to earn college credit while enrolled in high school. This may include on campus, off campus, and summer time work. Only coursework in approved Dual Enrollment programs will be recorded on the high school transcript.

Dual Enrollment requires enrollment at the post-secondary institution. Dual enrollment requirements include:

- Junior or senior in high school
- Minimum ACT sub-score in specific subject area
- Meet all prerequisites
- Permission from high school principal and parent/guardian
- Students complete all requirements of the college course.

GRADUATION REQUIREMENTS

CORE SUBJECTS	NUMBER OF CREDITS
ENGLISH	4 (ENGLISH I, II, III, IV)
MATH	4 (Algebra I, Geometry, Algebra II, one high level math)
SCIENCE	3 (Biology, Chemistry or Physics, one additional Lab science)
WORLD HISTORY AND GEOGRAPHY	1
US HISTORY AND GEOGRAPHY	1
US GOVERNEMENT AND CIVICS	½
ECONOMICS	½
PERSONAL FINANCE	½
PHYSICAL EDUCATION AND HEALTH	1-1/2 (Lifetime Wellness and one additional ½ credit) ⁽¹⁾
ELECTIVE FOCUS	3 ⁽²⁾
ADDITIONAL ELECTIVE CREDITS	6
TOTAL	28 ⁽⁴⁾

1. Substitute methods for meeting the 1/2 credit in Physical Education
2. Elective Focus Guidelines
3. Waivers were created as an approach to exempt students from the foreign language and fine art requirement; waivers are for exceptional circumstances. The purpose of the waiver is intended primarily for, but not limited to CTE students, to expand and enhance their elective focus beyond what would otherwise be possible. If there is no opportunity of expanding the elective focus area, then the foreign language and fine art requirements would not be waived.
4. Total Credits required for graduation is 4 credits less than the potential number available in the master schedule of the student's school (or schools) during the four school years following the student's entry into 9th grade.

Valedictorian and Salutatorian will be determined using the Equalization formula. This formula prorates the regular courses in such a way that the number of credits completed is equivalent for all students.

TYPES OF DIPLOMAS

Regular Diploma

Awarded to students who have earned the prescribed 28 credits and have a satisfactory record of attendance and discipline.

Regular Diploma with Honors

Students must satisfy all requirements for a regular diploma AND score at or above all of the following ACT subject area readiness benchmarks (or equivalent SAT scores.) Acceptable scores

may be used from more than one ACT test.

ACT	SAT
English 18	Benchmark 1550
Math 22	11th grade PSAT 142
Science 23	10th grade PSAT 133
Reading 22	8th grade ReadStep 11.8

Regular Diploma with Distinction

Students must satisfy all requirements for a regular diploma, earn a B average (85 or higher), AND complete 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 All State musical organizations
- Be selected as a National Merit Finalist or Semi-Finalist
- Attain a composite score of 31 or higher on the ACT
- Attain a score of 3 or higher on at least two Advanced Placement exams (If meeting this requirement, exams need to be completed by the end of the junior year.)
- Successfully complete the I.B. Diploma Programme
- Earn 12 or more semester hours of transcribed postsecondary credit.

International Baccalaureate (IB) Diploma

Awarded to students who earn the specified units of credit required

- Take the required End of Course Exams
- Earn a minimum of 24 points on IB culminating examinations in six subject areas
- Complete three IB core components: Extended Essay, Theory of Knowledge class, and 150 hours of Creativity/Action/Service (CAS)

Occupational Diploma

Awarded to students who

- Meet the criteria for Diploma of Specialized Education
- Successfully complete the SKEMA (Skills, Knowledge, and Experience Mastery Assessment) through two years of approved work experience

Diploma of Specialized Education

Awarded to students who

- Satisfactorily complete an Individualized Education Program (IEP)
- Do not meet the requirements for a regular high school diploma
- Have satisfactory records of attendance and conduct

Exchanging The Diploma Of Specialized Education For A Regular Diploma

Students with disabilities who are awarded a Diploma of Specialized Education may continue to work toward the regular high school diploma through the end of the school year in which they turn twenty-two years old. To qualify, the student must:

- Earn the specified units of credit required for a regular diploma
- Take the required End of Course exams

Individuals may not hold more than one diploma. A person must return the Diploma of Specialized Education before being awarded a regular diploma. This exchange shall be handled by the counselor at the high school where the diploma was awarded.

ELECTIVE FOCUS GUIDELINES

A three (3) credit Elective Focus is a graduation requirement. Students may select from the following areas:

- **Math And Science**
Any combination of three Math and/or Science electives in addition to the required math and science courses.
- **Humanities**
Any combination of courses in English/Language Arts, World Languages (above Level 2 if completing University Admissions requirement), and Social Studies, above the core requirements.
- **Fine Arts**
Any combination of courses in Visual and/or Performing Arts, Theatre and Dance above the core requirements for University Admissions.
- **Career And Technical Education**
Any combination of three units in the same Program of Study.
- **Intervention Academic Elective Focus**
Any combination of courses in Tier 2 and Tier 3 intervention (must have State approval).
- **Advanced Placement, International Baccalaureate, Or Dual Enrollment**
Any combination of three of the same type course (i.e. 3 AP courses, 3 IB courses, or 3 Dual Enrollment courses). AP/IB/Dual Enrollment courses may be used to satisfy core requirements and the elective focus requirement (i.e. AP US History may satisfy core requirements and may count as one course in an AP Elective Focus). Students using the AP/IB/Dual Enrollment courses to satisfy both core and elective focus requirements must earn 28 credits to graduate.
- **JROTC**
Any combination of 3 credits of ROTC.

- **Physical Fitness**
Any three Physical Education courses above the core requirements. Students taking a full credit PE course to satisfy the additional 1/2 PE credit must take an additional three courses to complete a Physical Fitness Focus.
- **STEM**
Three elective credits earned in either STEM courses(special course designations) Or a combination of 3 additional elective credits in Science, Technology, and/or math courses where a significant portion (more than 25%) of the course is based on original inquiry and design.
- **AVID**
Any combination of three credits of consecutive AVID course.
- **COMMUNITY EDUCATION CLUSTER**
The Knox County Schools Special Education Department added a Community Education Cluster to the elective focus options available to students with disabilities. This focus targets the community and social skills needed to make a successful transition to post- secondary work and job training. This focus also offers students a cluster of (WBL), Pre Vocational Skills, Lifetime Wellness. (Students completing this focus must have an Individual Education Plan)

HARDSHIP WAIVER OF REQUIREMENTS

Students who have encountered hardships due to mobility, family crisis, etc. may be eligible to be waived from the number of credits required at a KCS zoned high school. However, students must still meet the minimum TDOE graduation requirements including a focused pathway.

The school counselor should fill out the Hardship Waiver of Graduation Requirements form. The form, the transcript, current course schedule, description of the plan and justification for the request should be emailed to the Executive Director of Secondary Education. Requests will be reviewed by the Curriculum and Instruction team each month. Approvals will be emailed back to the school.

EXEMPTIONS FROM INSTRUCTION

Parents and guardians must be provided a convenient opportunity to preview all materials to be used in teaching Family Life and Sexuality Education (FLSE) units (e.g. during Open House events or other times prior to teaching). Prior to teaching the FLSE units, an active permission letter must be sent home and returned with a parent or guardian signature. The permission letter must inform the parent or guardian of the content to be covered and any materials (e.g., videos, texts, printed material, and guest speakers) used to supplement the instruction. In addition, the permission letter must inform the parent or guardian of their option to exclude their child from any portion of the FLSE units without penalty.

ATHLETICS

NCAA REQUIREMENTS FOR COLLEGE SCHOLARSHIPS IN ATHLETICS

For additional information and current updates refer to the “NCAA Guide for the College-Bound Student- Athlete” (go to www.eligibilitycenter.org) and college directories for information on Division I, II, and III colleges and universities.

The NCAA form (48-H) lists the course titles and the course numbers of all courses that meet NCAA core course requirements. This form can be completed by each school and sent in to the NCAA Initial Eligibility Clearinghouse.

If a student enrolls in a Division I college or university prior to August 1, 2016, and wants to participate in Division I athletics or receive an athletic scholarship during the first year of college, the student athlete must:

- Graduate from high school
- Complete the 16 core-course requirement in eight semesters:
- Four years of English
- Three years of mathematics (Algebra I or higher)
- Two years of natural/physical science (one year of lab if offered by high school)
- One year of additional English, mathematics or natural/physical science
- Two years of social science

Four years of additional core courses (from any category above, or from foreign language, comparative religion or philosophy) Note: Courses with similar content may be deemed duplicative by the NCAA Eligibility Center.

- Earn a minimum required grade-point average in core courses
- Earn a combined SAT or ACT sum score that matches the core-course grade-point average and test-score sliding scale (For example, a 2.400 core-course grade-point average needs an 860 SAT score).

If a student enrolls in a Division I college or university on or after August 1, 2016, and wants to participate in athletics or receive an athletic scholarship during your first year, the student athlete must:

- Graduate from high school
- Complete 16 core courses (same distribution as in the past)
Ten of the 16 core courses must be completed before the 7th semester (senior year) of high school
- Seven of the 10 core courses must be English, math or science
- Have a minimum core-course grade-point average of 2.3
- Grades earned in the 10 courses required before the senior year are “locked in” for purposes

of grade-point average calculation

- A repeat of any of the “locked in” courses will not be used to improve the grade-point average if taken after the 7th semester begins
- Meet the competition sliding scale requirement of grade-point average and ACT/SAT score (this is a new scale with increased grade-point average/test score requirements)
-

If a student enrolls in a Division II college on or after August 1, 2013, and wants to participate in athletics or receive an athletic scholarship during your first year, the student athlete must:

- Graduate from high school
- Complete these 16 core courses:
 - Three years of English
 - Two years of mathematics (Algebra I or higher)
 - Two years of natural/physical science (one year of lab science if offered by your high school)
 - Three years of additional English, mathematics or natural or physical science
 - Two years of social science
 - Four years of additional core courses (from any category above, or foreign language, comparative religion or philosophy);
- Earn a 2.000 grade-point average or better in core courses; and
- Earn a combined SAT score of 820 or an ACT sum score of 68. For individuals enrolling at a college or university in Puerto Rico, earn a combined Prueba de Aptitud Academica score of 730.

For Division III requirements, a student needs to contact the college regarding its policies. The NCAA states that a core course must:

- Be an academic course in one or a combination of these areas: English, mathematics, natural/physical science, social science, foreign language, comparative religion or philosophy
- Be four-year college preparatory
- Be at or above the regular high school academic level (i.e. remedial, special education or compensatory courses shall not be considered core courses)

All students who do not meet the NCAA initial-eligibility requirements and who wish to apply for a waiver of those requirements must have the waiver filed on their behalf by an NCAA institution.

Effective August 1, 2005, computer science courses will no longer be used for initial-eligibility purposes. Computer science courses (such as programming) that are taught through the mathematics or nature/ physical science departments and receive either math or science credit may be used.

These are the approved courses for NCAA. **Please be advised that NCAA eligibility requirements are not likely to allow credit for a course taken in Odyssey, even if it is an approved course.** For additional information, visit the NCAA Clearinghouse website. This site will provide information regarding initial- eligibility at NCAA Division I and II member colleges and universities. The NCAA Clearinghouse serves three main constituent groups: prospective student-athletes, high school administrators, and NCAA member institutions. Some of the pages accessed from this site require pre-registration or Personal Identification Numbers (PIN).

MESSAGE FROM ASHLEY JESSIE

Executive Principal WHS

Parents, Students, and Community Members,

I have the greatest job ever which is to be the principal of a culture that promotes excellence for every child at West High School. West High School is dedicated to every student's success. West has a supportive administrative team that has extremely high expectations for our teachers and students. Our faculty and staff is dedicated to making sure students come first and are determined to continue to mold generations of life-long learners. We have a desire and passion to push our students to the next level academically with implementing the use of 1:1 technology in every classroom this next school year. We also want to continue to partner with the community to strengthen the opportunities for our students. Our greatest achievements would not be possible without the support of the parents and community we serve. We are who we are because of our school community. We are #OneWest.

I look forward to being a part of our team as we push our school to success for 2016-2017!

Sincerely,

Ashley Jessie

Executive Principal

West High School

ashley.jessie@knoxschools.org

MISSION STATEMENT

West High School provides a safe, orderly, and respectful learning environment that fosters open-minded and caring young people.

Students are provided a diverse, international curriculum, a student-centered schedule, and an environment of accountability where instruction and assessments are research-based and data-driven.

VISION STATEMENT

West High School is dedicated to a tradition of excellence, a concept of diversity, unlimited potential and a global future where:

Students:

- Are engaged in challenging and meaningful learning
- Hold themselves accountable for their own learning
- Are involved in integrated learning activities
- Have access to a variety of resources for learning
- Help guide their own learning and academic achievement through personal goal setting
- Understand and value the benefits of education
- View the learning process as a cycle of continued personal growth

Parents and Community:

- Are actively engaged in their child's education
- Interact with children to offer mentoring services for struggling students (academically and socially)
- View West High School as a safe, central place within the community
- View West High School as an agent for moving the community forward
- Help to develop and nurture a genuine West High School community
- Will actively promote West High School
- Are invested in leading the district in cultural events and international mindedness

Teachers:

- Are dedicated to creating rigorous, engaging, effective lessons.
- Incorporate innovative, relevant and differentiated learning practices into their classrooms
- Continually refine their craft through quality PLC and SLC collaboration
- Nurture the process of learning
- Foster an environment of personal accountability and school pride

School Structures:

- Are designed for optimal success of every student
- Support consistency in school climate, policy implementation, teaching, communication and academic and emotional security
- Streamline communication processes to make information readily available to all stakeholders
- Utilize a technology-driven infrastructure and curriculum
- Provide a safe and stable learning environment.

SMALL LEARNING COMMUNITIES

FRESHMAN ACADEMY SLC

Providing support to ensure student success

The Freshman Academy is comprised of a team of Educators who work collaboratively to provide access to rigorous coursework while providing supports to ensure student success through:

- Student-Centered Collaboration
- Common Instructional Practices
- Common Language
- Common Expectations
- Professional Learning Communities
- Student Goal Setting
- Progress Monitoring

Providing students with necessary skill sets

It is through these research-based common practices that students gain access to rigorous, high quality instruction intended to teach students:

- To Think Critically
- To Collaborate
- To Communicate Through Speech and Writing
- To Learn *How* to Learn
- To Have An Academic Mindset

SOPHOMORE (WISE) SLC

A model for high expectations and student engagement

West Institute for Sophomore Education (WISE) Academy welcomes the class of 2019 to its small learning community. The WISE Academy is comprised of approximately 341 students, sixteen teachers, a school counselor, an academic dean, and assistant principal dedicated to promoting the four cornerstones of West High School. As the model for high expectations and student engagement, the WISE Academy:

- Believes in Our Capabilities
- Utilizes Our Resources
- Models Our Expectations
- Understands Education is The Key To Success

Our desire is for students to exceed the challenges we give them and surprise us in new ways to invigorate a culture of excellence.

UPPER HOUSE

The West High Upper House believes in

The West High Upper House prides itself in building an educational community and providing students with academic resources in order to:

- Build Successful Students That Are College And Career Ready
- Build Communication Between Teacher, Students, Parents, And Community Members In Order To Work Towards Common Goals And Develop Positive Relationships
- Celebrate All Our Successes Here At West High School Both In And Out Of The Classroom
- Focus On Positive Behaviors To Create A Culture Of Excellence For ALL Students
- Welcome Newcomers To Our Family At All Times In Order To Build A Stronger Community

INTERNATIONAL BACCALAUREATE

WHAT IS IB?



The International Baccalaureate (IB) Diploma Programme is a comprehensive, rigorous program of advanced studies that demands the best from motivated students. IB students study a broad spectrum of subjects and engage in research and experiential learning through school, community and international activities. In the forty years since its founding, the IB Diploma Programme has become a symbol of academic integrity and intellectual promise, recognized by leading universities in the United States and throughout the world.

West High School's IB Diploma Programme, authorized in 2011, aims to provide a balanced education, facilitate geographic mobility, and promote international understanding through a shared academic experience. Our IB exam results compare favorably to other IB World Schools and our students are widely accepted at competitive universities across the United States.

The IB Diploma Programme is a designated Magnet programme at West High School through the [Office of Innovation](#). Students not zoned for West High School are able to apply for a Magnet transfer. Due to the level of rigor within the IB Diploma Programme, any student applying for a Magnet transfer to West High School will complete a screening process in order to qualify. Please contact [Shannon Siebe](#) for more information regarding the screening process.

WHAT IS THE IB MIDDLE YEARS PROGRAMME?



West High School is very excited to be a candidate school for the International Baccalaureate Middle Years Programme (MYP). West is scheduled to open as a fully authorized IB World School for the Middle Years Programme in Fall 2017. The Middle Years Programme is a very welcome addition to our established IB Diploma Programme for the 11th and 12th grades. The Middle Years Programme is a programme directed to the needs of students in grades 6-10. West High School will be offering the Middle Years Programme in partnership with Bearden Middle School, which will offer the MYP for all students, grades 6-8. Likewise, at West High School ALL 9th and 10th graders will participate in the IB MYP.

The MYP will focus on supporting student academic and personal growth through the following components:

- **8 subject areas** that focus on TN State and KCS local curriculum through a challenging IB MYP framework, which encourages students to make connections between their studies and the real world.
- **Areas of Interaction** to tie learning to both the real world and other subject areas. These include: Health and Social Education, Community and Service, Environments, Approaches to Learning, and Human Ingenuity.
- **Approaches to Learning** help students to develop skills that have relevance across the curriculum that help them to "learn how to learn". They help to provide our students with a solid foundation for learning independently and with others.

- **Learner Profile** attributes are characteristics that all West High faculty encourage our students to embody in all aspects of their lives. IB learners are: Thinkers, Communicators, Risk Takers, Knowledgeable, Inquirers, Balanced, Reflective, Principled, Open-Minded, and Caring.
- **Personal Project** is the culminating MYP experience that West High School 10th graders develop and create throughout the sophomore year. This is a mandatory experience for all 10th graders, and gives each student the chance to create a truly personal and creative project of their choosing. Through this endeavor, each student will be able to demonstrate his/her ability to take initiative, think creatively, and communicate effectively—a few of the many skills our students need to be college and career-ready.



West High School is a candidate school* for the International Baccalaureate (IB) Middle Years Programme and is pursuing authorization as an IB World School. IB World Schools share a common philosophy—a commitment to improve the teaching and learning of a diverse and inclusive community of students by delivering challenging, high quality programmes of international education that share a powerful vision

*Only schools authorized by the International Baccalaureate can offer any of its four academic programmes: the Primary Years Programme (PYP), the Middle Years Programme (MYP), the Diploma Programme or the Career-related Programme (CP). Candidate status gives no guarantee that authorization will be granted.

WEST HIGH SCHOOL COURSE OFFERINGS

LANGUAGE ARTS

3001 ENGLISH I

In English I, students will build upon the skills developed in the middle school Language Arts. The focus is on close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students will engage in class discussion and written assignments to present analysis to develop an argument, or to write real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study will focus on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic work-place tasks, such as editing a draft.

ENGLISH I (HONORS)

In English I Honors, students will build upon the skills developed in the middle school Language Arts. The focus is on close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students will engage in class discussion and written assignments to present analysis to develop an argument, or to write real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study will focus on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic work-place tasks, such as editing a draft.

3002 ENGLISH II

In English II, students will build upon the skills developed in English I. The focus is on close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students will engage in class discussion and written assignments to present analysis to develop an argument, or to write real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study will focus on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic work-place tasks, such as editing a draft.

3002 ENGLISH II (HONORS)

In English Honors II, students will build upon the skills developed in English I Honors. Previous experience in honors is not a prerequisite; however, students who make the transition from grade level to honors may experience a significant difference in the level of text and the expectations for fluency in writing. The focus is on close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students will engage in class discussion and written assignments to present analysis to develop an argument, or to write real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study will focus on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic work-place tasks, such as editing a draft. Students in an English II Honors course will engage with text at the upper end of the reading band for the grade level. They will also engage in deeper levels of analysis with more rigorous expectations for the thoroughness of the evidence considered in developing analyses and arguments.

3003 ENGLISH III

Students in English III are working on career-ready reading and writing skills while also reading and analyzing foundational works in American literature. Through analyzing how multiple authors present similar subjects, students learn about multiple perspectives, bias, and audience. They also become proficient at identifying and evaluation reasoning within documents of historical, literary, information, and legal natures. Throughout the course, they will conduct short and long-term research projects, following both their own lines of inquiry and some teacher- directed lines of inquiry. While the foundational skills for composition should be established in the earlier grades, students in English III work to refine their writing style in fluency and sophistication.

3005 ENGLISH IV

Students in English IV are working on career-ready reading and writing skills while also reading and analyzing foundational works in world literature. Through analyzing how multiple authors present similar subjects, students learn about multiple perspectives, bias, and audience. They also become proficient at identifying and evaluation reasoning within documents of historical, literary, information, and legal natures. Throughout the course, they will conduct short and long-term research projects, following both their own lines of inquiry and some teacher-directed lines of inquiry. While the foundational skills for composition should be established in the earlier grades, students in English IV work to refine their writing style in fluency and sophistication. They also develop their speaking and listening skills through speeches and presentations.

30015 ENGLISH 1

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. SPED teachers who are endorsed in the subject or have proven content knowledge in English via Praxis may serve as teacher of record and give English I credit.

30025 ENGLISH 2

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. SPED teachers who are endorsed in the subject or have proven content knowledge in English via Praxis may serve as teacher of record and give English II credit.

30035 ENGLISH 3

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. SPED teachers who are endorsed in the subject or have proven content knowledge in English via Praxis may serve as teacher of record and give English III credit.

30055 ENGLISH 4

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. SPED teachers who are highly qualified in English may serve as teacher of record and give English 4 credit.

3013 ENGLISH AP LANGUAGE AND COMPOSITION (ADVANCED PLACEMENT)

A course for students who have successfully completed Honors English II or have demonstrated competency in composition and rhetorical skills. The curriculum emphasizes analysis, research, and composition as students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. Students will be expected to think critically and analytically and be able to express themselves effectively. College level outside reading is required. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Language and Composition Test. *Prerequisite: English I and teacher recommendation*

3011 IB English SL Yr 1/IB English HL Yr 1

Offered at the standard level or higher level in English, the Language A1 course promotes an appreciation of literature and a knowledge of a student's own culture and that of other societies. The course is designed to develop students' powers of expression, both in oral and written communication by emphasizing the skills involved in writing and speaking one's native language in a variety of styles and situations. Students read several texts grouped by themes or genres. The texts are chosen from a broad list of prescribed authors and works representing different literary genres and styles in the target language, as well as literature from other languages and cultures read in translation. Oral and written examinations are used to assess students' individual language skills, their ability to

critically analyze and comment upon familiar and unfamiliar texts, and their ability to express a personal and independent response to literature. *Prerequisite: Teacher Recommendation*

3012 CREATIVE WRITING I

A one-unit course for students who have an interest in studying and writing in the genres of poetry, drama, short story, and nonfiction. The curriculum includes the study of the genres, the students' personal examples of the genres and their development of a portfolio. *(Elective credit)*

3097 CREATIVE WRITING II

A one-unit course for students who wish to pursue further the art of creative writing, concentrating especially on poetry, short stories, non-fiction, and screen writing. Works of great authors are examined and modeled, with a view to enhancing the students' own work. The class is conducted as a workshop with both teacher- and peer-conferencing, an important part of the process, the end result being a significant portfolio of student work. *Prerequisite: Creative Writing I*

3015 SPEECH

A one-unit course for students who wish to develop skills in public speaking. The curriculum includes skills in researching, writing, presenting, and adapting speeches to various audiences and purposes. Forensics and debate may be included. *(Elective credit.)*

2905 VISUAL LITERACY

Students will interpret visual forms of media and to analyze and evaluate the effectiveness of the various types. Visual forms of media can include film, print, photography, stage productions, short videos, and graphic design. These forms of media will be used to develop the student's ability to understand messages conveyed through images. Throughout the course, students will examine and analyze the effect of various forms of media in order to broaden a student's cultural literacy.

9352 HUMANITIES

This course is designed for 10th-12th grade students who are interested in analyzing human culture through a variety of mediums including art, music, literature and film. Students will read a view many texts from a variety of continents and time periods, and they will engage in analytical discussions, blogs, debates, presentations, and writing activities. With each text, students will examine what the author/artist says about human culture and how the author/artist utilizes the tools of his or her discipline to develop the message. While each text will be studied first as its own entity, students will look across texts to discern patterns in the medium, time periods, and cultures.

3075 ENGLISH LANGUAGE LEARNERS

An English course designed for students who are classified as active ELLs. Based on level of English proficiency as determined by a standardized, state-approved ESL Test, students are provided English instruction specifically designed for second language learners. This course is available in grades 9-12. Students may substitute ESL for up to two units of English credit. Additional credit earned in ESL may be used as elective credit at the same rate as other courses in the student's school. Only a Certified ESL teacher can teach this course.

3117 INTEGRATED MATH I

3117 INTEGRATED MATH I (HONORS)

Integrated Math I emphasizes linear and exponential expressions, equations, and functions. This course also focuses on geometric congruence and interpreting linear models from quantitative data. Students continue their learning and understanding of categorical and quantitative data. Students are also introduced to reasoning with equations by solving systems of equations in two variables.

31025 ALGEBRA 1A

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. This course may be taught in a year - long format when preceded by a Special Ed Algebra 1A Prep class. The student may achieve the required number of credits in math through increased instructional time and completing at least Algebra I and Geometry.

31026 ALGEBRA 1B

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. This course may be taught in a year-long format when preceded by a Special Ed Algebra 1B Prep class. The student may obtain an Algebra credit after successful completion of this course.

3108 GEOMETRY

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion prepared a student for further work in Algebra II *Prerequisite: Algebra I with a grade of "C" or better recommended*

3108 GEOMETRY (HONORS)

Topics found in Standard Geometry are covered more in-depth with emphasis placed on problem solving, writing skills (especially in writing of proofs) and algebraic applications. Additional enrichment objectives are covered as time permits. Successful completion of this course prepares a student for further work in algebra usually Honors Algebra II. *Prerequisite: Algebra I in the 8th grade or Algebra I (Accelerated) in the 9th grade and Departmental Recommendation*

3118 INTEGRATED MATH II A/B

3118 INTEGRATED MATH II

3118 INTEGRATED MATH II (HONORS)

Integrated Math II builds upon concepts taught in Integrated Math I with an emphasis on quadratic and polynomial expressions, equations, and functions. This course also focuses on geometric similarity and interpreting functions from a real life context. Students extend previous knowledge of exponential properties to rational exponents. This course also introduces probability of compound events and the complex number system.

31085 GEOMETRY 1A

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. This course may be taught in a year-long format when preceded by a Special Ed Geometry A prep class. The student may achieve the required number of credits in math through increased instructional time completing at least Algebra I and Geometry.

31086 GEOMETRY 1B

Students with qualifying disabilities as documented in the IEP shall be eligible to take this course. This course may be taught in a year-long format when preceded by a Special Ed Geometry B Prep class. The student may achieve

the required number of credits in math through increased instructional time completing at least Algebra I and Geometry.

3103 ALGEBRA II

Building on their work with linear, quadratic and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Satisfactory completion of this course prepares students for entry into Pre-Calculus or Advanced Algebra and Trigonometry. *Prerequisites: Algebra I and Geometry credit with a grade of "C" or better recommended*

3103 ALGEBRA II (HONORS)

This course provides a rigorous preparation for Honors Pre-Calculus. An emphasis is placed on algebraic proof and provides an enriched version of Algebra II through the study of additional objectives and topics. Successful completion of this course prepares students for entry into Pre-Calculus or Honors Pre-Calculus. *Prerequisites: Algebra I and Honors Geometry credit with an "A" or "B" average grades or Departmental Recommendation*

3126 PRE-CALCULUS

This course develops the topics essential for success in Calculus. Content includes a study of algebraic, transcendental, and trigonometric functions, as well as their compositions and inverses, vectors, polar graphing, complex numbers, conic sections, and sequences and series. Students who complete this course successfully will have a strong background for a first-year Calculus sequence. (Prerequisites: Algebra 1, Geometry, and Algebra 2 with an "A" or "B" average grades recommended)

3181 BRIDGE MATH

This course is a 4th year senior level math credit course designed for students who need to refresh core mathematics skills prior to further study. It is recommended that students who have not scored at least a 19 on their ACT assessment (or equivalent assessment) take this course to be better prepared for post- secondary study. *Prerequisite: Algebra II*

APPLIED MATHEMATICAL CONCEPTS

Applications and modeling using mathematics are the primary foci of this course. Includes the following domains and clusters: Financial Mathematics, Linear Programming, Logic and Boolean Algebra, Problem Solving, Investigative Logic, Organize and Interpret Data, Counting and Combinatorial Reasoning, Normal Probability Distribution, Understand and Use Confidence Intervals.

IB MATH STUDIES SL 1 & 2

IB Mathematical Studies SL is designed for the student who will pursue non math based degrees at the Collegiate Level. Those majors would include Business, Social Sciences, Arts, and English. Real-life practical application and use of technology is heavily emphasized throughout the course. The main topics explored include: Sets, Logic and Probability, Statistics, Functions, Geometry and Trigonometry, and Financial mathematics. There is also an IB research project/paper that involves gathering your own data, interpreting the data through higher level mathematics, and then analyzing the results, This course like most IB courses emphasizes the importance of self-discovery therefore students will be expected to try many different types of problems. *Prerequisite: Algebra II or Admin/teacher approval from Geometry*

IB MATHEMATICS SL 1 & 2

SL1 is an in-depth study of Pre-Calculus topics (functions, circular functions, & Trigonometry) along with exposure to matrices. We place a strong focus on multiple representations of functions (equation, graph, table, etc.).

SL2 wraps up the SL curriculum with a focus on statistics, vectors, and calculus. Year 2 students must develop an understanding of practical application of these mathematical tools through the use of physics, finance, and other disciplines. The year 2 curriculum also includes an advanced exploration where students must demonstrate an understanding of the use of advanced mathematics appropriate to this course. *Prerequisite: Algebra 2*

Recommendation: Students with As and Bs in Honors Algebra 2 tend to be most successful in this track. This program of studies is for students who are interested in certain STEM careers or business/accounting.

IB MATHEMATICS HL 1 & 2

HL 1 is an in-depth study of Pre-Calculus topics along with vectors, matrices and a small dose of statistics.

HL 2 is equivalent to AP Calculus AB conceptually but does not go as in-depth as the AP course. Topics covered include: derivatives, integrals (through partial fraction decomposition) as well as the applications of both. The rest depends on which option the group chooses. Options are: Calculus, Statistics, Discrete and Number Theory.

Prerequisite: Honors Algebra 2

Recommendation: Students should consider themselves at the top 5% academically and in work ethic as HL IB test questions require critical thinking, refined analysis, and the melding together of all skills and concepts learned. On a daily basis, student should be willing to learn through a process of trying, failing, and trying again. This course does not consist of taking notes and repeating a demonstrated process.

3199 MATH COMPUTER APPLICATIONS (HONORS)

The faster pace of this course provides the time to enrich the content of Math Computer Applications through the study of additional objectives and topics. Successful completion of this course provides the student with the necessary prerequisites for Advanced Placement Computer Science. This course does not satisfy the State's four year math requirement.

3635 AP COMPUTER SCIENCE AP (ADVANCED PLACEMENT)

This course emphasizes object-oriented 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. It also includes the study of data structures and abstraction. The scope and sequence of this course follows the topics listed in the College Board Advanced Placement course description. Students who study this course will be prepared to take the Advanced Placement Computer Science "A" AP Exam and seek college credit. This course does satisfy the State's four year math requirement. *Prerequisite: Math Computer Applications or Departmental Recommendation*

SCIENCE

3210 BIOLOGY I (STANDARD/CP) BIOLOGY I (HONORS)

The goal of Biology I is to develop an understanding of the diversity and unity in living things. Concepts covered include current and emerging technologies as well as interactions of organisms with their environment, chemical structure of organisms, transfer of energy in organisms, cell structure and function, continuity and change in living things, diversity of living things, and evidence of biological evolution. Honors Biology places increased emphasis on development of critical thinking skills. This course includes preparation for the state AYP/End of Course exam. *Prerequisites: Honors level is based upon a combination of standardized test scores, past performance in science, teacher recommendations, and established enrollment limits.*

3251 ANATOMY & PHYSIOLOGY

3297 HUMAN ANATOMY & PHYSIOLOGY HONORS:

This course is a study of the body's structures 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. Content includes the study of the structure and function of cells, tissues, organs, and body systems. Some schools may offer this course as dual credit in coordination with a local cooperating institution of higher education. *Prerequisites: Biology I is required; Chemistry I is recommended.*

3260 ENVIRONMENTAL SCIENCE

The goal of the Environmental Science course is to develop an understanding about models of systems, ecosystems' structures, ecosystem's hierarchies, human interactions and the ecosystem and biosphere organization. The course explores the realms of ecology and the environment in a context which directly relates to the student's personal experience.

3255 ECOLOGY (CP)

This course enables students to develop an understanding of the natural environment and the environmental problems the world faces. Course topics include ecological principles, population dynamics, natural resources, energy resources, and human interaction with the environment. Students will develop a basic understanding of ecology as a basis for making ethical decisions and career choices. Particular emphasis will be placed on the local environment.

3202 PHYSICAL SCIENCE (CP)

The primary theme for Physical Science is the study of matter and energy. The course is designed to introduce students to the concepts of forces and motion, chemical and physical properties of matter, the ways in which matter and energy interact, the forms and properties of energy, and other basic concepts in chemistry and physics. *Prerequisites: Fundamental level is based upon a combination of standardized test scores, past performance in science, teacher recommendations, and established enrollment limits.*

3221 CHEMISTRY I (CP)

3221 CHEMISTRY I (HONORS)

The goal of Chemistry I is to develop an understanding of the relevance of chemistry as it relates to standards of living, career choices, and current issues in science and technology. Course content includes laboratory techniques and safety, properties and structures of matter in its various states, chemical calculations and quantitative relationships, chemical bonding and molecular structure, chemical reactions, solutions, gas laws, and acids and bases. The ability to make mathematical computations using fractions, decimals, ratios and proportions, and exponents is required. Honors Chemistry is designed to meet the needs of the more academically able student and will include a basic study of nuclear principles and organic chemistry. (Prerequisite: Algebra I. In the event the school's science course sequence schedules students in Chemistry prior to Biology OR for Honors level students, placement is based on a combination of standardized test scores, past performance in science and mathematics, teacher recommendations, and established enrollment limits. *All students must have completed Algebra I.*

3238 AP PHYSICS 1

This is equivalent to a first semester in college in algebra based physics. This course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy and power; and mechanical waves and sound. It also introduces electric circuits. *Prerequisites: Geometry and currently taking Algebra II or equivalent course.*

3466 IB ENVIRONMENTAL SYSTEMS AND SOCIETIES (ESS) SL 1 & 2

The Environmental Systems & Societies (ESS) course is a two-year transdisciplinary course (Experimental Science - Group 4, and Individuals and Societies - Group 3). It is unique in that it contains various sciences, coupled with a societal viewpoint, all intertwined to help students understand the environment and its sustainability. The purposes of this course is to expose students to the interrelationships of the environment and societies, and the nature of their interactions, so that they can obtain an informed personal response to a wide range

of pressing global issues. The course requires field experiences which will further extend the interrelationships between the environment and societies. The ESS curriculum promotes an understanding of environmental processes in an internationally minded way. The students will consider the interdependence of peoples, communities and nations around the world as governmental and non-governmental agencies work to manage and preserve the resources of our globe's environment. This course will provide the skills necessary for students to analyze, promote cultural awareness, connect technology and its influence on the environment, and realize that global societies are linked to the environment at a number of levels and at a variety of scales and the resolution of many of these issues rely heavily on international relationships and agreements. Students will develop a holistic appreciation of complexities of local and global environmental issues and how different societies influence them.

Prerequisite: Teacher Recommendation

3468 IB CHEMISTRY HL 1 & 2

This course combines academic study with the acquisition of practical and investigational skills through the experimental approach. Students learn the chemical principles that underpin both the physical environment and biological systems through the study of quantitative chemistry, periodicity, kinetics and other subjects. This chemistry course covers the essential principles of the subject and, through selection of options, allows the teacher flexibility to tailor the course to meet the needs of our students. Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context. *Prerequisite: Teacher Recommendation*

3467 IB BIOLOGY HL 1 & 2

Students taking the Higher Level science take both years of this course. Biology IB is designed to give students a secure knowledge of a limited body of facts and at the same time a broad understanding of the field of biology. The syllabus is organized around four central themes: structure and function; universality versus diversity, equilibrium within systems; and evolution. Course topics at both levels include: cells; chemistry of life; genetics; ecology; and human health and physiology. Students perform further study in: cells; nucleic acids and proteins; cell respiration and photosynthesis; genetics; human reproduction; defense against infectious diseases; classification and diversity; nerves, muscles and movement; excretion; and plant. *Prerequisite: Teacher Recommendation*

IB PHYSICS HL 1 & 2

The IB Physics HL course is a two-year rigorous pre-university course which is internationally well recognized. The focus of this programme is to impart in students the knowledge and skills required to excel in their university studies. The course introduces the students to scientific methods and techniques which are needed for scientific investigations. Students are made aware of the moral and ethical social responsibility in the use of scientific knowledge. Students are encouraged to understand the relationship between the various scientific disciplines and carry out an interdisciplinary project. Practical investigations are an integral part of the curriculum. Students are required to research a scientific problem, develop hypothesis, design an experiment, conduct investigations and draw conclusions. Special emphasis is given to manipulative skills required to carry out scientific investigations. Student assessment is conducted both externally through written examination and internally by means of practical investigations and an interdisciplinary project.

SOCIAL STUDIES

3405 UNITED STATES HISTORY AND GEOGRAPHY – COLLEGE PREP

Students will examine the causes and consequences of the Industrial Revolution and America's growing role in world diplomatic relations, including the Spanish-American War and World War I. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to America's entry into World War II, as well as its consequences for American life. Students will explore the causes and course of the Cold War. Students will study the important social, cultural, economic, and political changes resulting from the Civil Rights Movement, the Cold War, and recent events and trends that have

shaped modern-day America. Additionally, students will learn the causes and consequences of contemporary issues impacting their world today. Students will continue to use skills for historical and geographical analysis as they examine American history since Reconstruction with special attention to Tennessee connections in history, geography, politics, and people. Students will continue to learn fundamental concepts in civics, economics, and geography within the context of United States history. The reading of primary source documents is a key feature of United States history standards. Finally, students will focus on current human and physical geographic issues important in contemporary America and the global society. (Prerequisite: Departmental Recommendation for Fundamental)

3440 AP UNITED STATES HISTORY

The AP United States History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials-their relevance to a given interpretive problem, reliability, and importance- and to weigh the evidence and interpretations presented in historical scholarship. This AP United States History course will develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. (Prerequisite: Departmental Recommendation)

3401 WORLD HISTORY AND GEOGRAPHY

Students will study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They will examine the origins and consequences of the Industrial Revolution, nineteenth century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will explain the causes and consequences of the great military and economic events of the past century, including the World Wars, the Great Depression, the Cold War, and the Russian and Chinese Revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world. Relevant Tennessee connections will be part of the curriculum, as well as appropriate primary source documents. Students will explore geographic influences on history, with attention given to political boundaries that developed with the evolution of nations from 1750 to the present and the subsequent human geographic issues that dominate the global community. Additionally, students will study aspects of technical geography such as GPS and GIS, and how these innovations continuously impact geopolitics in the contemporary world.

HONORS WORLD HISTORY AND GEOGRAPHY This course description is the same as the World History and Geography course and follows the same state standards and local curriculum but with increased rigor. The course is taught at a more advanced level than World History and Geography, focusing on additional readings and analyses of primary source materials and document-based writings. The course is designed to prepare students for Advanced Placement coursework. (Students are recommended for this course based on middle school standardized test scores.)

3407 UNITED STATES GOVERNMENT AND CIVICS (CP)

This is a one-half credit course. Students will study the purposes, principles, and practices of American government as established by the Constitution. Students are expected to understand their rights and responsibilities as citizens and how to exercise these rights and responsibilities in local, state, and national government. Students will learn the structure and processes of the government of the state of Tennessee and various local governments. The reading of primary source documents is a key feature of United States Government and Civics standards.

3445 AP UNITED STATES GOVERNMENT AND POLITICS

A well-designed AP course in United States Government and Politics will give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret the United States Government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute United States government and politics. While there is no single approach that an AP United States Government and Politics course must follow,

students should be acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. (Prerequisite: Departmental Recommendation)

3431 ECONOMICS (CP)

This is a one-half credit course. Students will examine the allocation of scarce resources and the economic reasoning used by government agencies and by people as consumers, producers, savers, investors, workers, and voters. Key elements of the course include the study of scarcity, supply and demand, market structures, the role of government, national income determination, money and the role of financial institutions, economic stabilization, and trade. Students will examine the key economic philosophies and economists who have influenced the economies around the world in the past and present. Informational text and primary sources will play an instrumental part of the study of economics where it is appropriate.

3496 PERSONAL FINANCE

This is a one-half credit course. 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. (This course is recommended for grade 12.)

3442 AFRICAN AMERICAN HISTORY

Students will examine the life and contributions of African Americans from the early 1600's through modern America. Students will explore the influence of geography on slavery and the growth of slavery on the American continent. Students will consider urban and rural African American communities and institutions in the North and South leading up to and during the Civil War. Students will investigate the rise and effects of Jim Crow and trace the impact of African American migration through the early twentieth century. Students will explore the impact of the Harlem Renaissance and the conditions and contributions of African Americans during the Great Depression and World War II. Students will examine the successes and failures of the Civil Rights Movement and consider the contemporary issues confronting African Americans. (This course is recommended for grades 10-12)

3434 IB PSYCHOLOGY SL

Offered at the standard level, IB Psychology is the rigorous and systematic study of mental processes and behaviour. It is a complex subject which draws on concepts, methods and understandings from a number of different disciplines. There is no single approach that would describe or explain mental processes and behaviour on its own as human beings are complex animals, with highly developed frontal lobes, cognitive abilities, involved social structures and cultures. The study of behaviour and mental processes requires a multidisciplinary approach and the use of a variety of research techniques whilst recognising that behaviour is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behaviour.

We have 3 core approaches to understanding behavior and mental processes. The Biological Approach, the Cognitive Approach, and the Sociocultural Approach. We also cover Abnormal Psychology. In addition to this content, we cover research methods in order for students to replicate a Psychological experiment that has already been done. This entails conducting the research and then analyzing the results with descriptive statistics and inferential statistics. The final product is a paper.

The course is reading and writing intensive and the student must be able to work with descriptive and inferential statistics. *Prerequisite: Teacher recommendation*

IB WORLD RELIGION SL

The IB World Religions course is a systematic, analytical yet empathetic study of the variety of beliefs and practices encountered in nine main religions of the world. The course seeks to promote an awareness of religious issues in the contemporary world by requiring the study of a diverse range of religions. The religions are studied in such a way that students acquire a sense of what it is like to belong to a particular religion and how that influences the way in which the followers of that religion understand the world, act in it, and relate and respond to others.

3457 IB HISTORY OF EUROPE HL 1 & 2

The IB higher-level history of Europe course aims to promote an understanding of history as a discipline, including the nature and diversity of sources, methods and interpretations. Students are encouraged to comprehend the present by reflecting critically on the past. They are further expected to understand historical developments at national, regional and international levels and learn about their own historical identity through the study of the historical experiences of different cultures. Students may choose to take the AP European History exam at the conclusion of the course in addition to the IB History of Europe exam. *Prerequisite: Teacher recommendation*

WORLD LANGUAGE

LEVEL I [3091 CHINESE I; 3041 FRENCH I; 3051 GERMAN I; 3021 SPANISH I]

For students who are interested in acquiring knowledge of the culture and language. The curriculum includes the study of the culture and basic communicative skills in listening, speaking, reading, and writing. Recommended for 9th grade students who read and perform language arts skills on or above grade level, and for any students in grades 10-12 who need to meet the two-year college entrance requirement. Students may wish to defer fulfilling this requirement until 10th grade or later.

LEVEL I (HONORS) [3021 SPANISH] This course follows the general curriculum for Level I but moves at a faster pace and is more in depth. Also, additional vocabulary and grammar are taught. Increased emphasis is placed on writing, reading, and speaking skills in the target language. (Prerequisite: Teacher recommendation or demonstrated proficiency)

LEVEL II: CHINESE II; FRENCH II; GERMAN II; RUSSIAN II; SPANISH II

For students who are interested in developing the skills learned in the first level. The curriculum includes further study of the skills acquired in level one. Students who have successfully completed level I or who have demonstrated proficiency as determined through a language proficiency test or through teacher recommendation are eligible to take this course.

LEVEL II (HONORS) [3042 FRENCH; 3052 GERMAN; 3022 SPANISH]

This course follows the general curriculum for Level II but moves at a faster pace and is more in depth. Also, additional vocabulary and grammar are taught. Increased emphasis is placed on writing, reading, and speaking skills in the target language. (Prerequisite: Teacher recommendation or demonstrated proficiency)

LEVEL III (HONORS) [3043 FRENCH; 3053 GERMAN; 3023 SPANISH]

This course follows the general curriculum for Level III but moves at a faster pace and is more in depth. Also, additional vocabulary and grammar are taught. Increased emphasis is placed on writing, reading, and speaking skills in the target language. (Prerequisite: Teacher recommendation or demonstrated proficiency)

3026 IB SPANISH SL/HL 1 & 2

Offered at the standard and higher level in Spanish, IB Language B is designed for world language learners and focuses principally on the interaction between the speakers and writers of the target language. The aim of each course is to prepare students to use the language appropriately in a range of situations and contexts and for a variety of purposes. These courses also allow students to develop an awareness and appreciation of the culture(s) of the countries in which the target language is spoken. The skills of listening, speaking, reading and writing are equally emphasized, and are taught and developed through the study of a range of authentic oral and written texts chosen by the teacher. A variety of oral and written examinations are used to assess students' listening, speaking, reading, and writing skills. Prior to enrolling in a Language B course, it is assumed students have studied the target language for two to five years. *Prerequisite: Teacher Recommendation*

3039 IB FRENCH SL/HL 1 & 2

Offered at the standard and higher level in French, IB Language B is designed for world language learners and focuses principally on the interaction between the speakers and writers of the target language. The aim of each course is to prepare students to use the language appropriately in a range of situations and contexts and for a variety of purposes. These courses also allow students to develop an awareness and appreciation of the culture(s) of the countries in which the target language is spoken. The skills of listening, speaking, reading and writing are equally emphasized, and are taught and developed through the study of a range of authentic oral and written texts chosen by the teacher. A variety of oral and written examinations are used to assess students' listening, speaking, reading, and writing skills. Prior to enrolling in a Language B course, it is assumed students have studied the target language for two to five years. *Prerequisite: Teacher Recommendation*

3056 IB GERMAN SL 1 & 2

Offered at the standard level in German, IB Language B is designed for world language learners and focuses principally on the interaction between the speakers and writers of the target language. The aim of each course is to prepare students to use the language appropriately in a range of situations and contexts and for a variety of purposes. These courses also allow students to develop an awareness and appreciation of the culture(s) of the countries in which the target language is spoken. The skills of listening, speaking, reading and writing are equally emphasized, and are taught and developed through the study of a range of authentic oral and written texts chosen by the teacher. A variety of oral and written examinations are used to assess students' listening, speaking, reading, and writing skills. Prior to enrolling in a Language B course, it is assumed students have studied the target language for two to five years. *Prerequisite Teacher Recommendation*

FINE ARTS

3530 BAND

Provides students with the opportunity of continuing the study and performance of music emphasizing traditional band literature and selected orchestral transcriptions. The course focuses on the study of the elements of music and the development of individual and group performance skills. Individual practice, after-school practice and rehearsal sessions, and performances are required. Performance opportunities include marching band, concert band, invitational and audition clinics, festivals, and contests. (Prerequisites: Previous experience and teacher approval; Instructor's signature) Can be taken for multiple credits.

3530 BAND: WIND ENSEMBLE

The Concert Band, Symphonic Band, and Wind Ensemble are musical groups concentrating their skills on musical performances for advanced woodwinds, brass, and percussion performance. These bands play a variety of styles and types of music selected from the standard high school band repertoire. The goal of these courses is to develop a proficiency on a chosen instrument through rehearsals, lessons and various performances. These bands will have several performance opportunities throughout the semester. Through these classes the students will improve instrumental skills, elevate performance skills as well as develop an understanding of the performance process. All National Music Standards are addressed and the highest expectations of musicianship and behavior are expected. Rehearsals and performances during the school day, before and after the regular school day, as well as on non-school days, may be required. (Prerequisite: Previous study of a band instrument and Music Instructor's signature) Can be taken for multiple credits.

3530 INSTRUMENTAL ENSEMBLE

Provides students with the opportunity of continuing the study and performance of music literature relative to a specific ensemble, such as Jazz, Percussion, Brass, or Woodwind. The course focuses on advanced individual and group performance skills relative to the selected medium. Individual practice, after-school practice and rehearsal sessions, and performances are required. (Prerequisite: Teacher approval.) Can be taken for multiple credits.

3531 VOCAL MUSIC II

For students who wish to study and perform a wide variety of medium to difficult sacred and secular choral literature in a variety of styles and historical periods. Emphasis will be placed on an advanced degree of musicianship and increased performance skills individually and in ensemble. The mixed chorus is for students who elect and are selected by audition to be in the group. Previous choral music experience is usually beneficial but not a prerequisite. Performances and after-school rehearsals are required. Can be taken for multiple credits. Students are divided into male and female sections.

3531 FEMALE CHORUS (BELLA VOCE)

For female choral students to study and perform a wide variety of sacred and secular choral literature of easy to medium difficulty from all historical and performance styles. Emphasis is placed on the development of individual and ensemble skills in vocal production, tone quality, diction, intonation, balance and blend, sight-reading and music reading, and ensemble esprit de corps. Previous choral experience is not a prerequisite but would be beneficial. Performances and after-school rehearsals are required. Can be taken for multiple credits.

3531 VOCAL MUSIC III CHORAL ENSEMBLE (CHORALE AND STUDIO WEST)

Consists of students with previous choral experience selected by audition. The nature of the group may vary according to the discretion of the director and the needs of the school music program. Examples are: Chamber Choir, Madrigal Singers, Pop Ensemble, and Show Choir. Emphasis is placed on an advanced degree of musicianship, increased harmonic and rhythmic reading skills, and increased performance skills. Opportunities are provided for performance in school and community. Performances and after-school rehearsals are required. Choreography and/or costumes may be required by the teacher for some ensembles. This is an auditioned group. Can be taken for multiple credits.

9352 MUSICAL THEATRE

This course offers students the opportunity to study and perform in this genre. The course combines practical vocal training, as well as the development of students as actors and dancers. The curriculum includes production of the school musical and/or a musical revue, as well as other musical theatre related projects. Can be taken for multiple credits.

(Prerequisite: Theatre Arts I or Choir with a B or higher + audition required. You must be at least a sophomore to take this course.)

3520 THEATRE ARTS I

An entry level course for students who have an interest in drama and wish to improve their abilities in communicating and appearing before a group. The curriculum includes lessons and exercises in three main categories:

- Acting: pantomime, improv, play reading, auditions, musical theatre, theatre history
- Directing: scene work, productions, play critiques
- Devising theatre: stagecraft, Annual Skits, Lip Sync Competition

(Prerequisite: None)

3521 ADVANCED THEATRE ARTS

For students who have completed Theatre Arts I and wish to expand their interpretative skills and knowledge of theatre. The curriculum includes further study of character development, including acting in the Fall Play, duet scene work and student-directed one-act plays. Can be taken for multiple credits.

(Prerequisite: Theatre Arts I with a B or higher + audition required. You must be at least a sophomore to take this course.)

3521 ADVANCED THEATRE ARTS PRODUCTION

This one-unit course will focus on the study and application of technical theatre including set design, set building, lighting, sound, props, stage managing, costume design, makeup, publicity, box office, and house management. Students in this course will be in one of our four crews: Set Construction, Props/Painting, Business/Publicity,

Costumes/Make-up. All students are required to crew a play and/or musical production, which will require time commitment outside of class. Can be taken for multiple credits.

(Prerequisite: Interview with teacher mandatory; Theatre Arts I with a B or higher is recommended for instructor approval. You must be at least a sophomore to take this course.)

IB THEATRE SL

The IB Theatre course is a multifaceted theatre-making course of study. It gives students the opportunity to make theatre as creators, designers, directors and performers. It emphasizes the importance of working both individually and collaboratively as part of an ensemble. It offers the opportunity to engage actively in the creative process, transforming ideas into action as inquisitive and productive artists. Students experience the course from contrasting artistic perspectives. They learn to apply research and theory to inform and to contextualize their work. The theatre course encourages students to appreciate that through the processes of researching, creating, preparing, presenting and critically reflecting on theatre— as participants and audience members—they gain a richer understanding of themselves, their community and the world.

3501 VISUAL ART I (GENERAL)

A one-unit survey course designed for students in grades 9-12 who are enrolling in a high school art course for the first time. Provides a variety of experiences that build on the concepts, techniques, and use of media introduced in the middle school program. Generally laboratory in nature, Art I explores and gives experience in two-dimensional (drawing, painting, printmaking) and three-dimensional (sculpture, ceramics, textiles) formats and integrates art history, design principles, and aesthetic criticism and response.

3502 ADVANCED ART

For students who have successfully completed Art I and, who, in the judgment of the instructor, show a sufficient level of interest and/or ability that would warrant continued study in Visual Art. Based on approved curriculum guides, the program of study may be divided into the following topics or areas of concentration: Art History, Sculpture, Painting, Ceramics, Drawing, Printmaking, Paper, or Photo. This assures that students who continue beyond the first year will grow in their artistic development. Students may continue in Advanced Art on a space-available basis and may repeat Advanced Art up to seven times at the determination of the instructor. (Prerequisite: Art I and teacher recommendation)

ADV 2D PAINTING AND DRAWING A level 2 elective course that covers Painting, Drawing, Printmaking, Composition, Collage, and other 2D design concepts. Repeatable, Pre-requisite: Art 1- with final grade of B or higher

ADV PHOTO A level 2 elective course that covers Composition, Film Developing, the History of Photography, and other Photography concepts and Introduction to Digital Photography. Required to provide your own 35mm camera. Non-repeatable, Pre-requisite: Art 1 with final grade of B or higher

ADV 3D SCULPTURE AND CERAMICS A level 2 elective course that covers Functional and Sculptural Ceramics, Stone-Carving, and other 3D design concepts. Repeatable, Pre-requisite: Art 1 with final grade of B or higher

3533 AP STUDIO ART- DRAWING PORTFOLIO

The Advanced Placement Drawing Portfolio is designed to include a very broad interpretation of drawing issues. Many types of painting, printmaking, studies for sculpture, and some forms of design, as well as abstract and observational works, could qualify as addressing drawing issues. The range of marks used to make drawings, the arrangement of those marks, and the materials used to make the marks are endless. Works of photography, videotapes and computer- **GENERATED WORKS MAY NOT BE SUBMITTED FOR THE DRAWING PORTFOLIO.**

3544 AP STUDIO ART- 3D DESIGN

This portfolio is intended to address a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. Such elements and concepts may be articulated through additive, subtractive, and/ or fabrication processes. A variety of approaches to representation, abstraction, and

expression may be part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, three-dimensional fiber arts or metal work, among others.

3545 AP STUDIO ART- 2D DESIGN

This portfolio is intended to address a very broad interpretation of two-dimensional (2D) design issues. This type of design involves purposeful decision-making about how to use the elements and principles of art in an integrative way. For this portfolio, students are asked to demonstrate proficiency in 2D design using a variety of art forms. These could include, but are not limited to, graphic design, typography, digital imaging, photography, collage, fabric design, weaving, illustration, painting, printmaking, etc. A variety of approaches to representation, abstraction, and expression may be part of the student's portfolio.

IB ART

These courses enable students to engage in both practical exploration and artistic production, and in independent contextual, visual and critical investigation. These courses are designed to enable students to study visual arts in higher education and also welcomes those students who seek life enrichment through visual arts. The aims and assessment objectives are the same for visual arts students at both HL and SL, however, through a variety of teaching approaches, all students are encouraged to develop their creative and critical abilities and to enhance their knowledge, appreciation and enjoyment of visual arts. The course content for HL and SL may be the same. However, due to the different amount of time available for each, students at HL have the opportunity to develop ideas and skills, and to produce a larger body of work, or work of greater depth. *Prerequisite: Teacher Recommendation*

PHYSICAL EDUCATION

3301 PHYSICAL EDUCATION I

A one-unit elective course. The goal of Physical Education I is to provide a variety of activities through four strands: Health Related Fitness; Individual Sports; Team Sports; and Basic Gymnastic Fundamentals. Each unit within the strand will be designed to teach the basic skills, rules and strategies necessary to understand and perform a variety of activities. This course is a prerequisite for Advanced Physical Education.

3302 ADVANCED PHYSICAL EDUCATION

A one-unit elective course. The goal of Advanced Physical Education is to provide progressive skills, techniques and strategies in various activities. (Prerequisite: Physical Education I) Can be taken for multiple credits.

3303 LIFETIME WELLNESS

A one-unit course required for graduation for students in grade 10. The goal of Lifetime Wellness is for students to learn 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. The unit consists of the following strands: Disease Prevention and Control; Mental Health; Nutrition; Physical Fitness and Related Skills; Safety and First Aid; Sexuality and Family Life; and Substance Use/Abuse.

3302 AEROBICS A one-unit elective course emphasizing the importance in improving and maintaining a healthier cardiovascular system. Skills taught in order to achieve this goal include muscular endurance, muscular strength, cardiovascular endurance, flexibility and body composition. Regular aerobic workouts through the participation in aerobic routines, games and various other activities accompanied by a fitness assessment will be the primary instructional focus of this course. Physical Education I is not a prerequisite for this course. Can be taken for multiple credits.

3302 CONDITIONING AND ADVANCED STRENGTH TRAINING A one-unit elective course designed to allow students to make gains in conditioning, muscle tone, and strength while emphasizing the importance of making an active healthy lifestyle a lifelong practice. Health and skill related activities such as flexibility, speed, agility, coordination and power, along with self-discipline and a positive attitude will be the

content focus. Proper nutrition will also be examined and emphasized. Physical Education I is not a prerequisite for this course. Can be taken for multiple credits.

ROTC

GENERAL DESCRIPTION

J.R.O.T.C. is a program provided jointly by the Knox County School System and the United States Department of Defense. Currently the program is operated by the Air Force in two schools, the Army in two schools, and the Navy in five schools. While some aspects of the J.R.O.T.C. program may vary somewhat according to differences among Air Force, Army, and Navy regulations, all services present a curriculum designed to help each student achieve the following goals: (1) Develop habits of orderliness, precision, and respect for authority in our society, (2) Instill patriotism, (3) Develop a high degree of personal honor, self-reliance, individual discipline, and leadership, (4) Instill pride, self-respect, confidence, and a desire to do one's best in any endeavor, and (5) Promote a basic understanding of national security requirements and the role of the armed service in the national defense structure. After completion of JROTC I, the student may continue in the Advanced JROTC program on a space-available basis.

CTE

DIETETICS AND NUTRITION

613700000 Introduction to Human Studies is a foundational course for students interested in becoming a public advocate, social worker, dietician, nutritionist, counselor, or community volunteer. Upon completion of this course, a proficient student will have an understanding of human needs, overview of social services, career investigation, mental health, and communication. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned with Tennessee State Standards for English Language & Literacy in Technical Subjects, as well as the Tennessee State States for Psychology and Sociology, and the National Standards for Family and Consumer Sciences Education, Second Edition. Credit: 1 - Grade Level 9 - Pre-requisite(s) none

600500000 Nutrition Across the Lifespan is for students interested in learning more about becoming a dietitian, nutritionist, counselor, or pursuing a variety of scientific, health, or culinary arts professions. Upon completion of this course, proficient students will understand human anatomy and physiological systems, nutrition requirements, as well as social, cultural, and other impacts on food preparation and integrity.

Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Biology I, Chemistry I, Human Anatomy & Physiology (A&P), and Scientific Research, and the National Standards for Family and Consumer Sciences Education, Second Edition. Credit: 1 - Grade Level 10 - Pre-requisite(s) Introduction to Human Studies

600700000 Nutrition Science and Diet Therapy is an applied knowledge course in nutrition for students interested in the role of nutrition in health and disease. Upon completion of this course, proficient students will be able to develop a nutrition care plan as part of the overall health care process, use methods for analyzing the nutritional health of a community, and understand the relationship of diet and nutrition to specific diseases. The course places emphasize on the role of diet as a contributor to disease and its role in the prevention and treatment of disease. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned to Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Mathematics, and Tennessee Biology I, Chemistry I, Human Anatomy & Physiology (A&P), and Scientific Research standards, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Credit: 1 - Grade Level 11 - Pre-requisite(s) Nutrition Across the Lifespan

NURSING EDUCATION

599800000 Health Science Education is an introductory course designed to prepare students to pursue careers in the fields of biotechnology research, therapeutics, health informatics, diagnostics, and support services. Upon completion of this course, a proficient student will be able to identify careers in these fields, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. This course will serve as a strong foundation for all of the Health Science programs of study. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects. **Credit: 1 - Grade Level 9 - Pre-requisite(s) none**

599900000 Medical Therapeutics is an applied course designed to prepare students to pursue careers in therapeutic services. Upon completion of this course, a proficient student will be able to identify careers in therapeutics services; assess, monitor, evaluate, and report patient/client health status; and identify the purpose and components of treatments. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Partnership for 21st Century Skills Framework for 21st Century Learning, as well as Tennessee Anatomy and Physiology standards. **Credit: 1 - Grade Level 10 – 11 - Pre-requisite(s) Health Science Education**

3251 Human Anatomy and Physiology

This course is a study of the body's structures 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. Content includes the study of the structure and function of cells, tissues, organs, and body systems. Some schools may offer this course as dual credit in coordination with a local cooperating institution of higher education. (Prerequisites: Biology 1 is required; Chemistry 1 is recommended.)

600000000 Nursing Education is a capstone course designed to prepare students to pursue careers in the field of nursing. Upon completion of this course, a proficient student will be able to implement communication and interpersonal skills, maintain residents' rights and independence, provide care safely, prevent emergency situations, prevent infection through infection control, and perform the skills required of a nursing assistant. At the conclusion of this course, if students have logged 40 hours of classroom instruction and 20 hours of classroom clinical instruction, and if they have completed 40 hours of site- based clinical with at least 24 of those hours spent in a long-term care facility, then they are eligible to take the certification examination as a Certified Nursing Assistant (CNA). **Credit: 1 - Grade Level 11 – 12** Students must be at least 16 years old to be enrolled in this course and able to provide their own transportation to and from clinical sites. - **Pre-requisite(s)** Medical Therapeutics and Anatomy & Physiology Prior to beginning work at a clinical site, students must be certified in Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR), and deemed competent in basic first aid, body mechanics, Standard Precaution guidelines, and confidentiality. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Anatomy & Physiology, and Tennessee Nursing Education Training Program requirements.

ACCOUNTING

590500000 Introduction to Business & Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to

pursue in high school. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee Economics standards. **Credit: 1 - Grade Level 9 – 10 - Pre-requisite(s) None**

591000000 Accounting I is an essential course for students who wish to pursue careers in business and finance, or for those who wish to develop important skillsets related to financial literacy. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. In this course, proficient Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work, such as the GAAP (generally accepted accounting procedures) standards. Upon completion of this course, proficient students will be prepared to apply their accounting skills in more advanced Business and Finance courses, and ultimately pursue postsecondary training. Standards in this course are aligned with Tennessee State Standards for English Language Arts and Literacy in Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 10 – 11 - Pre-requisite(s) Introduction to Business and Marketing**

591100000 Accounting II is an essential course for students who wish to pursue careers in business and finance, or for those who wish to develop important skillsets related to financial literacy. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. In this course, proficient Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work, such as the GAAP (generally accepted accounting procedures) standards. Upon completion of this course, proficient students will be prepared to apply their accounting skills in more advanced Business and Finance courses, and ultimately pursue postsecondary training. Standards in this course are aligned with Tennessee State Standards for English Language Arts and Literacy in Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 11 – 12 - Pre-requisite(s) Accounting I**

BANKING & FINANCE

590500000 Introduction to Business & Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee Economics standards. **Credit: 1 - Grade Level 9 – 10 - Pre-requisite(s) None**

591000000 Accounting I is an essential course for students who wish to pursue careers in business and finance, or for those who wish to develop important skillsets related to financial literacy. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. In this course, proficient Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work, such as the GAAP (generally accepted accounting procedures) standards. Upon completion of this course, proficient students will be

prepared to apply their accounting skills in more advanced Business and Finance courses, and ultimately pursue postsecondary training. Standards in this course are aligned with Tennessee State Standards for English Language Arts and Literacy in Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 10 – 11 - Pre-requisite(s) Introduction to Business and Marketing**

589900000 Banking and Finance is designed to challenge students with real-world banking and financial situations through a partnership with a local financial institution. This business partnership should provide resources for faculty and students that include but are not limited to mentors, seminars, and hands-on experience with day-to-day banking operations. Upon completion of this course, proficient students will have a strong foundation for continued education in finance and business administration, specializing in occupations that support banking and financial institutions. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 11 – 12 - Pre-requisite(s) Accounting I**

MARKETING

590500000 Introduction to Business and Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee Economics standards. **Credit 1 - Grade Level 9 – 10 - Prerequisite(s) None**

593100000 Marketing and Management I: Principles focuses on the study of marketing concepts and their practical applications. Students will examine the risks and challenges that marketers face to establish a competitive edge in the sale of products and services. Topics covered include foundational marketing functions such as promotion, distribution, and selling, as well as coverage of economics fundamentals, international marketing, and career development. Upon completion of this course, proficient students will understand the economic principles, the marketing mix, and product development and selling strategies. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee state standards in Economics. **Credit 1 - Prerequisite(s) none - Grade Level 10 - 11**

593200000 Marketing & Management II: Advanced Strategies is a study of marketing concepts and principles used in management. Students will examine the challenges, responsibilities, and risks managers face in today's workplace. Subject matter includes finance, business ownership, risk management, marketing information systems, purchasing, promotion, and human resource skills. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee state standards in Economics. Note for instructors: This course assumes many students are engaged in a work-based learning (WBL) experience such as cooperative education, internships, school-based enterprises, or similar types of worksite experiences with a local partner business. Projects in the course could benefit significantly from the use of resources and data from local businesses. Instructors are encouraged to leverage existing partnerships and to build on advisory committee relationships as they reach out to business owners or managers for authentic scenarios, materials, and other business information from which students could learn. **Credit 1 - Prerequisite(s) Marketing & Management I: Principles - Grade Level 11 – 12**

616800000 Event Planning & Management is designed to be a project-based, capstone experience in which students research, prepare, deliver, and reflect upon an original event for a community organization, business, or non-profit. Upon completion of this course, proficient students will further refine leadership, teamwork, and management skills acquired in previous courses and apply them through application in a practicum setting. The course is highly customizable to meet local needs: partner organizations may be chosen at the discretion of student teams, with the approval of the instructor and appropriate school personnel. Organizations can include local non-profits, charities, shelters, agencies, businesses, sports teams, school-based enterprises, or other entities with a demonstrated need for assistance in staging an event or a commitment to providing students with work-based learning opportunities. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects. **Credit: 1 - Grade Level 11 – 12 - Pre-requisite(s)** At least two credits earned in a previous Hospitality & Tourism or Marketing program of study.

COSMETOLOGY

598300000 Cosmetology I is the first level of cosmetology, and it prepares students with work-related skills for advancement into the Design Principles of Cosmetology course. Content provides students 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. **Credit: 1 – 2 - Grade Level 9 - Pre-requisite(s) none**

598600000 Cosmetology II is the second level of cosmetology and 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 Tennessee Board of Cosmetology Shampoo examination for a Tennessee Shampoo Technician License. **Credit: 1 – 2 - Grade Level 10 - Pre-requisite(s) Principals of Cosmetology**

598400000 Cosmetology III is the advanced level of cosmetology, and it 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. **Credit: 2 – 3 - Grade Level 11 – 12**

PROGRAMMING & SOFTWARE DEVELOPMENT

609500000 Computer Science Foundations is a course intended to provide students with exposure to various information technology occupations and pathways such as Networking Systems, Programming and Software Development, and Web Design. As a result, students will complete all core standards, as well as standards in two of three focus areas. Upon completion of this course, proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession. Depending on the focus area, proficient students will also demonstrate an understanding of electronics and basic digital theory; project management and teamwork; client relations; causes and prevention of Internet security breaches; and writing styles appropriate for web publication. Upon completion of the ITF course, students will be prepared to make an informed decision about which Information Technology program of study to pursue. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in

Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 9 - Pre-requisite(s) None**

609800000 Coding I is a course intended to teach students the basics of computer programming. The course places emphasis on practicing standard programming techniques and learning the logic tools and methods typically used by programmers to create simple computer applications. Upon completion of this course, proficient students will be able to solve problems by planning multistep procedures; write, analyze, review, and revise programs, converting detailed information from workflow charts and diagrams into coded instructions in a computer language; and will be able to troubleshoot/debug programs and software applications to correct malfunctions and ensure their proper execution. Standards in this course are aligned with the Tennessee State Standards for English Language Arts Standards and Literacy in Technical Subjects and Tennessee State Standards for Mathematics. **Credit: 1 - Grade Level 10 - Pre-requisite(s) Algebra I and Information Technology Foundations**

609900000 Coding II challenges students to develop advanced skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increased complexity. In so doing, they develop key skills of discernment and judgment as they must choose from among many languages, development environments, and strategies for the program life cycle. Course content is reinforced through numerous short- and long-term programming projects, accomplished both individually and in small groups. These projects are meant to hone the discipline and logical thinking skills necessary to craft error-free syntax for the writing and testing of programs. Upon completion of this course, proficient students will demonstrate an understanding of object-oriented programming language using high-level languages such as FOCUS, Python, or SAS. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects **Credit: 1 - Grade Level 11 - Pre-requisite(s) Coding I**

CYBERSECURITY

609500000 Computer Science Foundations is a course intended to provide students with exposure to various information technology occupations and pathways such as Networking Systems, Programming and Software Development, and Web Design. As a result, students will complete all core standards, as well as standards in two of three focus areas. Upon completion of this course, proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession. Depending on the focus area, proficient students will also demonstrate an understanding of electronics and basic digital theory; project management and teamwork; client relations; causes and prevention of Internet security breaches; and writing styles appropriate for web publication. Upon completion of the ITF course, students will be prepared to make an informed decision about which Information Technology program of study to pursue. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. **Credit: 1 - Grade Level 9 - Pre-requisite(s) None**

617500000 Cybersecurity I is a course intended to teach students the basic concepts of cybersecurity. The course places an emphasis on security integration, application of cybersecurity practices and devices, ethics, and best practices management. The fundamental skills in this course cover both in house Page 2 and external threats to network security and design, how to enforce network level security policies, and how to safeguard an organization's information. Upon completion of this course, proficient students will be demonstrate and understanding of cybersecurity concepts, identify fundamental principles of networking systems, understand network infrastructure and network security, and be able to demonstrate how to implement various aspects of security within a networking system.

617600000 Cybersecurity II challenges students to develop advanced skills in concepts and terminology of cybersecurity. This course builds on previous concepts introduced in Cybersecurity I while Page 2 expanding the

content to include malware threats, cryptography, wireless technologies and organizational security. Upon completion of this course, proficient students will be demonstrate and understanding of cybersecurity ethical decisions, malware threats, how to detect vulnerabilities, principles of cryptology, security techniques, contingency plan techniques, security analysis, risk management techniques, and advanced methods of cybersecurity.

ELECTRICAL SYSTEMS

607300000 Fundamentals of Construction is a foundational course in the Architecture & Construction cluster covering essential knowledge, skills, and concepts required for careers in construction. Upon completion of this course, proficient students will be able to describe various construction fields and outline the steps necessary to advance in specific construction careers. Students will be able to employ tools safely and interpret construction drawings to complete projects demonstrating proper measurement and application of mathematical concepts. Standards in this course also include an overview of the construction industry and an introduction to building systems and materials. Students will begin compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in their selected program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and the National Center for Construction Education and Research (NCCER) Curriculum. **Credit: 1 - Grade Level 9 - Pre-requisite(s) None**

607500000 Electrical Systems prepares students for careers as electricians across a variety of residential and commercial environments. Upon completion of this course, proficient students will be able to implement safety procedures and tools to perform operations with device boxes, conduit, raceway systems conductors, and cable. Students will read and interpret the National Electrical Code, drawings, specifications, and diagrams to determine materials and procedures needed to complete a project. Students will calculate residential loads to recommend electrical hardware. Standards in this course also introduce basic troubleshooting procedures and power systems, and expand on principles of the construction industry, delving deeper into business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee State Standards in Chemistry I, Physics, Physical Science, and Environmental Science, as well as the National Center for Construction Education and Research (NCCER) Curriculum. * **Credit: 1 - Grade Level 11 – 12 -**

616000000 Construction Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Architecture & Construction courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by tradesmen and contractors in the workplace, students learn to refine their skills in problem solving, communication, teamwork, and project management in the completion of a course- long project. Due to the importance of on-the-job training in the construction industry, a principle aim of the practicum is to assist students with placements where on-the-job training occurs, if available, so they can begin to log hours on a worksite and gain experience prior to entering the job market, such as in pre-apprenticeships. Additionally, students are exposed to the great range of postsecondary opportunities in today's construction fields as well, in order to prepare them to make an informed decision regarding their post-high school plans. **Credit: 1 - Grade Level 12 - Pre-requisite(s) Minimum of 2 credits in an Architecture & Construction program of study.**

STEM

592400000 Principles of Engineering and Technology is a foundational course in the STEM cluster for students interested in learning more about careers in engineering and technology. This course covers basic skills required for engineering and technology fields of study. Upon completion of this course, proficient students are able to identify and explain the steps in the engineering design process. They can evaluate an existing engineering design, use fundamental sketching and engineering drawing techniques, complete simple design projects using the

engineering design process, and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics.

Credit 1 - Prerequisite(s) none - Grade Level 9

613900000 Engineering Design I is a fundamental course in the STEM cluster for students interested in developing their skills in preparation for careers in engineering and technology. The course covers essential knowledge, skills, and concepts required for postsecondary engineering and technology fields of study. Upon completion of this course, proficient students are able to describe various engineering disciplines, as well as admissions requirements for postsecondary engineering and engineering technology programs in Tennessee. They will also be able to identify simple and complex machines; calculate various ratios related to mechanisms; explain fundamental concepts related to energy; understand Ohm's Law; follow the steps in the engineering design process to complete a team project; and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics* Note: Students are expected to use engineering notebooks to document procedures, design ideas, and other notes for all projects throughout the course. **Credit 1 - Prerequisite(s) Principles of Engineering & Technology, Algebra I, and Physical Science or Biology - Grade Level 10**

614000000 Engineering Design II is an applied course in the STEM career cluster for students interested in further developing their skills as future engineers. This course covers knowledge, skills, and concepts required for postsecondary engineering and technology fields of study. Upon completion of this course, proficient students are able to explain the differences between scientists and engineers, understand the importance of ethical practices in engineering and technology, identify components of control systems, describe differences between laws related to fluid power systems, explain why material and mechanical properties are important to design, create simple free body diagrams, use measurement devices employed in engineering, conduct basic engineering economic analysis, follow the steps in the engineering design process to complete a team project, and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics.

Note: Students are expected to use engineering notebooks to document procedures, design ideas, and other notes for all projects throughout the course. **Credit 1 - Prerequisite(s) Engineering Design I and Biology or Chemistry - Grade Level 11**