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**Academic Course Catalog
2019-2020**

**Class of 2020
Class of 2021
Class of 2022**

Loudon High School and Loudon County Schools reserve the right to add, delete, or adjust requirements, course offerings, and services at any time without prior notice.



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Graduation Requirements

*A Loudon County Schools diploma shall be awarded to students who have earned the prescribed 28 credits and have satisfactory record of attendance and discipline.

Course Type:	No. Req.	Offerings
English	4	English I, II, III, IV
Mathematics ¹	4	Algebra, Geometry, Algebra II plus 1 additional
Science	3	Physical Science, Biology, Chemistry, Agricultural Science, Physics
U.S. History	1	U.S. History
World History	1	World History
Government ²	.5	Government
Economics	.5	Economics (or Virtual Enterprise)
Physical Education	.5	Physical Education
Personal Finance ³	.5	Personal Finance
Wellness	1	Wellness
Elective Focus ⁴	3	Can be CTE (3 courses in same program)
Fine Arts	1	Music, Art, Chorus, Digital Art
Foreign Language	2	Spanish
Other Electives	6	

Total 28

***University Admissions Students must complete two units of the same world language and one unit of fine/performing arts.**

¹ All students are required to complete a math course sequence of Algebra I, Geometry, Algebra II, and one additional math course. An IEP may allow students to waive Algebra 2. A student is required to enroll in a math course each year.

² U.S. Government requires students to pass a United States Civics test in order to graduate.

³ Personal finance will be taken with the student's physical education class.

⁴ Elective focus must be selected from fine arts, NJROTC, career and technical education, humanities, STEM, or dual enrollment courses.



Grading Scale

Numerical Grade	Unweighted Course	Honors Course	Statewide Dual Credit Course	Advance Placement or Dual Enrollment
93-100	4.0	4.5	4.75	5.0
85-92	3.0	3.5	3.75	4.0
75-84	2.0	2.5	2.75	3.0
70-74	1.0	1.5	1.75	2.0
Below 70	0.0	0.0	0.0	0.0

The following classes will receive a weighted point:

Honors courses at Loudon High School receive an additional 0.5 quality points in the calculation of the weighted grade point average as well as an additional 3 points added to the final numerical grade. Honors classes include the following courses:

Honors English I	Honors English II	Honors English III
Honors English IV	Honors Algebra IA	Honors Algebra IB
Honors Geometry	Honors Algebra II	Honors Biology
Honors Chemistry	Honors Chemistry II	Honors Physics
Honors Anat/Phys	Honors World History	Honors U.S. History
Honors Spanish III	Honors Spanish IV	

Statewide Dual Credit and **Local Dual Credit** courses will receive an additional 0.75 quality points in the calculation of the weighted grade point average for the graduating classes of 2020 and 2021. An additional 1.0 quality point will be added for the graduating classes of 2022 and 2023. An additional 4 points added to the final numerical grade.

Dual Credit Precalculus	Dual Credit Statistics
Dual Credit Emergency Resp. Services	Dual Credit U.S. History

Capstone Industry Certifications are available in the following courses for the graduating classes of 2022 and beyond. Students taking the Certification Exam will receive an additional 1.0 quality point as well as an additional 4 points added to the final average.

Welding I	Welding II	Early Childhood ED III
HVAC II	Culinary Arts III	Emergency Med. Services



Dual Enrollment courses are taught through Roane State Community College. Roane State is responsible for determining GPA and ACT score eligibility for each course. Courses are assigned grades based on the Roane State grading scale and students will earn an additional 1.0 quality point in the calculation of the weighted grade point average. Only one math course in the senior year will be weighted. There is a cost for these classes.

Dual Enrollment Biology I	Dual Enrollment Biology II	Dual Enrollment U.S History
Dual Enrollment Comp. I	Dual Enrollment Comp II	Dual Enrollment Speech
Dual Enrollment College Algebra	Dual Enrollment Statistics	Dual Enrollment PreCalculus

Dual Enrollment classes are also offered through the Tennessee College of Applied Technology (TCAT) in Harriman. They are taught at LCTC in Lenoir City. These courses require the recommendation of a Loudon HS CTE teacher. Students will earn an additional 1.0 quality point in the calculation of the weighted grade point average.

Dual Enrollment Welding	Dual Enrollment Diesel Mechanics
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Summary

Numerical Grade/Letter Grade	Unweighted Course/All courses in unweighted GPA	Honor Course (HON)	Statewide or Local Dual Credit (DC)		Dual Enrollment (DE)
			CLASS OF 2020 & 2021	Class of 2022 & 2023	
93-100 (A)	4.0	4.5	4.75	5.0	5.0
85-92 (B)	3.0	3.5	3.75	4.0	4.0
75-84 (C)	2.0	2.5	2.75	3.0	3.0
70-74 (D)	1.0	1.5	1.75	2.0	2.0
0-69 (F)	0	0	0	0	0

Repeated Courses

Repeated courses – only the most recent grade, credit, and grade-points shall be computed as part of the GPA. The previous course code and title shall be retained on the student’s



permanent record without credit and the grade shall NOT be computed as part of the accumulated GPA.

- Credit Recovery is offered to students that have made between a 50-69 in a subject that is available on Odysseyware (online program). A maximum grade of a 70 when using credit recovery.
- Courses passed within a sequential subject may not be repeated after the student has received a passing semester grade in the first semester course. For example, a student may not repeat Spanish I after receiving a passing grade in the first semester of Spanish II.
- Students who repeat a class with a teacher in a classroom setting will receive the grade awarded.

End Of Course Exams (EOCs)/ Finals/ Etc:

Examination dates for the school year are published in advance so that families may plan accordingly to avoid conflicts on examination dates. EOC percentage is determined by Loudon School Board and will be announced prior to EOC results. Staff will NOT be permitted to give examinations early except in very extraordinary situation.

EOC exams will be given in English I, English II, Algebra I, Geometry, Algebra II, U.S. History, and Biology. The results of these tests will be calculated as 15 percentage points of the final grade. LHS will also give final exams in other subjects near the completion of each class which will be a percentage of the total course grade.

LHS Elective Areas of Focus

Loudon High School recognizes these areas of focus and their corresponding courses as approved to fulfill the elective class requirements. The following are the focus areas:

- Agriculture
- Business
- Carpentry
- Culinary Arts
- Digital Arts
- Dual Enrollment
- Early Childhood Education
- Fine Arts
- Health Science
- Humanities (ELL, Journalism, Advanced Spanish)
- HVAC
- Intervention
- Maintenance & Light Repair
- NJROTC



- STEM
- Welding

Courses Offered In Each Area Of Focus:

Agriculture:

- Agri Science
- Small Animal Care
- Large Animal Care
- Greenhouse Management
- Veterinary Science

Business & Informational Technology:

- Computer Applications
- Accounting I
- Virtual Enterprise I
- Virtual Enterprise II

Carpentry:

- Construction Core
- Carpentry I
- Carpentry II

Culinary Arts:

- Culinary Arts I
- Culinary Arts II
- Culinary Arts III

Digital Arts:

- Digital Art and Design (DAD 1)
- Photography (DAD 1)
- Photography II (DAD 2)
- Video Production (DAD 3)
- Digital Arts and Design 3 (DAD 3)

Early Childhood Education:

- Early Childhood ED I
- Early Childhood ED II
- Early Childhood ED III

Fine Arts:

- Art I
- **Advanced Art



- General Music
- **Advanced Music Theory
- Theatre Arts
- **Advanced Theatre
- **Band
- **Chorus
- **Men's Choir
- **Ensemble

Health Science:

- Health Science Education
- Medical Diagnostics
- Honors Anatomy & Physiology
- Anatomy and Physiology
- Dual Credit First Responder (17 Years and Older)
- Rehab Careers
- Medical Therapeutics

Humanities:

- **Journalism (Yearbook Staff)
- **Advanced Spanish

HVAC:

- HVAC/R Core
- HVAC/R I
- HVAC/R II

Maintenance & Light Repair:

- Maintenance and Light Repair I
- Maintenance and Light Repair II
- Maintenance and Light Repair III
- Maintenance and Light Repair IV
- * Diesel Repair I & II (DE, taught at LCTC. 3rd and 4th Fall and/or Spring)

Manufacturing & Welding:

- Principles of Machining I
- Welding I
- Welding II
- *Welding (DE) (Taught at LCTC 3rd and 4th Fall and/or Spring)

NJROTC:

- NJROTC (I-IV)



Core Area Courses Offered:

English:

- College Prep English I, II, III, IV
- Honors English I, II, III, IV
- *Dual Enrollment English IV (Comp I & II)
 - Also counts for 6 hours of college credit (3 Blocks)
- ** Dual Enrollment Speech (Elective)
- ** ELL I, II, III, IV
- ** Reading Skills/Reading Intervention
- ** Yearbook 1 or 2 credits (English Elective)

Foreign Language:

- Spanish I & II
- ** Honors Spanish III & IV

Health/Physical Education:

- Lifetime Wellness
- Physical Education (1/2 Credit)

Math: (Placement In All Math Courses Is Based On Teacher Recommendation)

- ** Math Skills/Math Intervention
- Algebra IA/IB (2 Credits)
- Algebra IA/IB (4 Credits, Year-Long; IEP Approval)
- Honors Algebra IA/IB
- Geometry
- Honors Geometry
- Geometry A (11th Grade, IEP Approval)
- Geometry B (12th Grade, IEP Approval)
- Algebra IIA/IIB (2 Credits)
- Honors Algebra II
- Dual Credit Pre-Calculus
- Dual Credit Statistics
- SAILS Math (12th Only, Math ACT 17-18)
- Bridge Math (12th Only)
- Applied Mathematical Concepts (12th Only)
- DE Statistics (Math ACT >19)
- DE College Algebra (Math ACT > 21)



Science:

- Agri Science
- Biology I
- Biology IA/IB (Year-long, IEP Approval)
- ** Honors Biology I
- Chemistry I
- ** Honors Chemistry I
- ** Honors Chemistry II
- ** Honors Physics
- ** Dual enrollment Biology I
- ** Dual Enrollment Biology II
- ** Honors Anatomy & Physiology
- Anatomy and Physiology

Social Studies:

- World History & Geography
- ** Honors World History & Geography
- United States History & Geography
- ** Dual Credit U.S. History & Geography
- ** Dual Enrollment U.S. History
- Economics (1/2 Credit, 12th Only)
- Virtual Enterprise (For Economics)
- Government & Civics (1/2 Credit, 12th Only)
- Personal Finance (1/2 Credit)

Required Assessments

End of Course (EOC) exams are required in English I, English II, Algebra I, Algebra II, Geometry, and U.S. History that will assess the level of mastery and expectations leading to college and career readiness. Eleventh grade students are required to take the ACT. All students are required to take and pass the United States Civics test prior to graduation.

Selection for Academic Honors

Students will be selected for academic honors based on the following requirements:

1. Must attain and maintain a B (3.0) average or better
2. Must have an attendance record that is satisfactory
3. Must be free of any out-of-school suspensions



National Honor Society

- 1) A junior or senior must have one complete term of grades at LHS at the time of selection
- 2) May have no semester grad below a C;
- 3) May not have any out-of-school suspensions.
- 4) Maintain unweighted 3.5 GPA

The Loudon High School Chapter of the National Honor Society is composed of juniors and seniors who have shown outstanding leadership, service, character and scholarship. Rising juniors and seniors who have met the requirements listed above and who have an unweighted GPA of 3.5 or above will be invited into membership. These invited will then fill out an application. Those chosen will be inducted into the LHS Chapter of the National Honor Society at an evening ceremony. Inductees must complete a minimum of 2 hours per month. Senior Members must complete a minimum of 25 hours of service. All service must be completed on NHS-sponsored projects. Special recognition will be given at graduation to seniors who have exceeded the service expectations.

Grading System

Add info about weighted classes, etc...

Grade Point Average And Class Rank

Summer School

Summer school is offered each summer at Loudon High School. Summer school is an optional program that allows students to retake courses that they may have failed during this school year. The cost per class in summer school is 200.00 and 100.00 per credit recovery in a credit recovery program. Students may take one class as well in addition have one credit recovery during the summer term. The summer term for a semester credit is 19 days of a 3.5 hour instructional hours per day.

Credit Recovery

Credit recovery is a course-specific, skill-based extended learning opportunity for students who have previously been unsuccessful in mastering content or skills required to receive course credit or



earn promotion. Credit recovery programs, in general, have a primary focus of helping students progress through school and graduate on time.

Students will not be allowed to enroll if they have previously taken an initial, non-credit recovery section of the proposed course and received a grade of less than fifty percent (50%). Students who receive a grade of below fifty percent (50%) in the non-credit recovery section of the course must retake the course.

Students who are interested in credit recovery courses should contact their school counselor to obtain the application paperwork. A student needing to recovery multiple credits may be assigned to a lab during the school day.

Students that achieve a passing score in credit recovery will be awarded a 70 for the course regardless of their score in the credit recovery coursework.

Schedule Changes

Schedule changes will only be permitted during listed times of the counseling department. These times will vary based on the current semester. Students that are wishing to change their schedule must submit a schedule change form to the counseling department in order to be considered for a change. If a change is needed for an honors or Dual Credit, permission must be received by a parent and administration.

Athletic Eligibility

In order to participate in athletics here at Loudon High School, a student must meet the requirements listed by the TSSAA. This requirement is dictates that a student must gain 6 credits during the preceding school year. All credits must be earned before the first day of school. Students who are declared ineligible can become eligible for the second semester by earning 3 credits before the end of that term. Please see the TSSAA and NCAA participation requirements for more detailed information.

College Credit Courses

Early College Experience Programming (Dual Enrollment/Dual Credit)

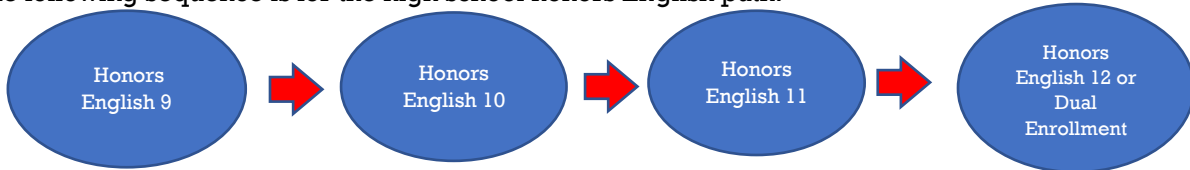


Loudon High School Course Offerings

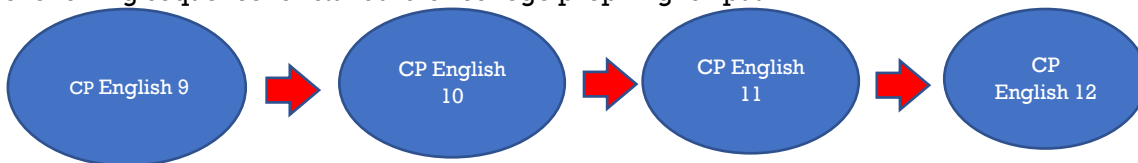
English

Students must obtain 4 English credits for graduation. This would translate to 1 course per school year in the given sequence.

The following sequence is for the high school honors English path:



The following sequence for standard or college prep English path:



The honors path for students will be determined by placement tests and with teacher recommendations.

English I CP (1 Credit)

TN Course Code 3001

In this class, you will be exposed to a variety of informational (literature, magazines, newspapers, online articles, videos, movies, art, music, etc.) and narrative (fiction, nonfiction, etc.) texts in order to prepare you to meet the Tennessee Ready Standards. Class discussions will take place both online and in the classroom with peers. You'll be exposed to writing for various purposes on different platforms showcasing your ability to paraphrase information, analyze the text, make assertions, cite textual evidence, add commentary, and draw inferences. Regular grammar practice online is required.

Honors English I (1 Credit)

TN Course Code 3001

In Honors English I, students should expect similar thematic units to those they would encounter at the CP level; however, they will be engaging in material at an advanced pace. State policy mandates that "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." Prerequisite: Student must have minimum TCAP scores and teacher recommendation.

English II CP (1 Credit)

TN Course Code 3002

In English II, students will expand their reading, writing, and critical thinking skills through a close examination of 3 major modules. The first involves the Science Fiction genre as well as research on technology's impact on our society. The second is a study of classic



Shakespearean literature with a focus on the power of language. Finally, students will read a more current Young Adult novel, *The Hate U Give* and explore social justice in our current world. All of this accompanies our efforts to achieve great success on the TNReady exam and master Tennessee State Standards. Students will need to complete English I in order to take this course.

Honors English II (1 Credit)

TN Course Code 3002

In Honors English II, students should expect the same thematic units and modules as those listed in English II CP; however, they will be engaging in material at an advanced pace. State policy mandates that "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." More independent work will be given, and expectations for depth of analysis in writing and discussions will be expected. Prerequisite: Student must have teacher recommendation.

English III CP (1 Credit)

TN Course Code 3003

In English III, students will trace the patterns and changes in the concept of the American Dream as it is portrayed throughout American literary history. This is a thematic study that will include a unit on the criminal justice system, poetry, the art of persuasion through rhetoric, and a novel study project. Throughout the course, students should be prepared to engage in challenging learning opportunities that will enhance their reading, writing, communication, and critical thinking skills. While English III has no state exam accompanying it currently, this class will focus on enriching student skills to master the ACT as it is a major focus for junior year. Students will need to complete English II to take this course.

Honors English III (1 Credit)

TN Course Code 3003

Prerequisite: Student must have teacher recommendation.

This course will focus on American literature. Topics discussed will include the American Dream and equality found the writings of American men, women, and minorities. This course will also focus on college level reading and writing and ACT preparation. Honors level will include special projects and topics, as well as more advanced reading and writing.

CP English IV

TN Course Code 3005

In English IV, students will be faced with challenging assignments that are designed to prepare them for either college or the workforce. Ultimately, the course will present students with learning opportunities to grow as readers, writers, speakers, and critical thinkers; therefore, a wide range of both literary and informational text will be used to



solidify students in their abilities to engage in citizenship after high school. There will be a balance of classic texts (like *Beowulf* and *Macbeth*) and more modern literature (subject to change) in which students will explore major themes like leadership, citizenship, and the responsibility of humanity to create well-rounded and well-read individuals. Students' final exam grade in English IV will be the overall Senior Capstone grade.

Honors English IV

TN Course Code 3005

In Honors English IV, students should expect the same thematic units as those listed in CP English IV; however, they will be engaging in material at an advanced pace. State policy mandates that "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."

Dual Enrollment Composition I

TN Course Code 4039

Roane State Course Code ENGL 1010

Composition I is designed to develop proficiency in essays based on several rhetorical modes of writing, such as narrative (personal experience) and expository (informative) essays. The majority of the essays are applicable to major fields of study and societal issues. Research paper required. Must be accepted to Roane State. An additional fee may be charged by Roane State.

Dual Enrollment Composition II

TN Course Code 4040

Roane State Course Code ENGL 1020

Composition II involves writing based on literature and research. Includes interpretation and analysis of fiction, drama, poetry, and the novel. (Prerequisite: ENGL 1010) Must be accepted to Roane State. An additional fee may be charged by Roane State.

Reading Intervention Grades 9-12 (1 Credit)

TN Course Code 3017

In this class, you will be exposed to a variety of research-based programs and practices that will improve your fluency and comprehension in reading to help you reach grade level proficiency. The programs we'll use in this class are Reading Plus and Readworks. The baseline tests we'll use are PWRS and PASS. Weekly probes will be used to monitor progress and include but are not limited to RCBM and MAZE assessments. The program standards for this class are based on the foundational Tennessee Ready Standards for English.

Journalism

TN Course Code 3008

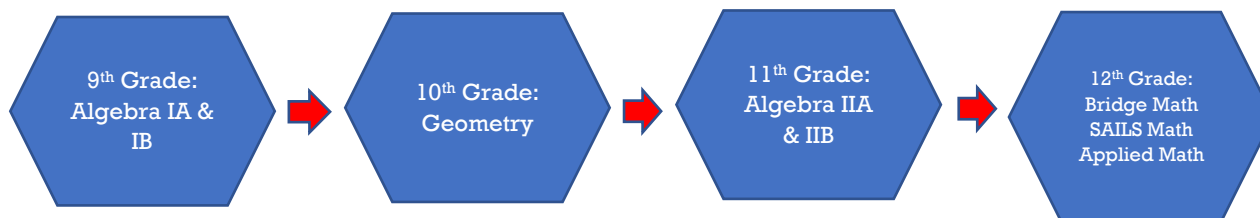
Journalism class primarily focuses on production of the Lou-Hi-San yearbook. Students learn about the ethics of journalism and also the principles of design, writing, and photography. Yearbook staff members are required to attend club meetings and after school events in order to get adequate coverage of the school year. Applications for yearbook staff can be picked up from Ms. Callais in the library in March.



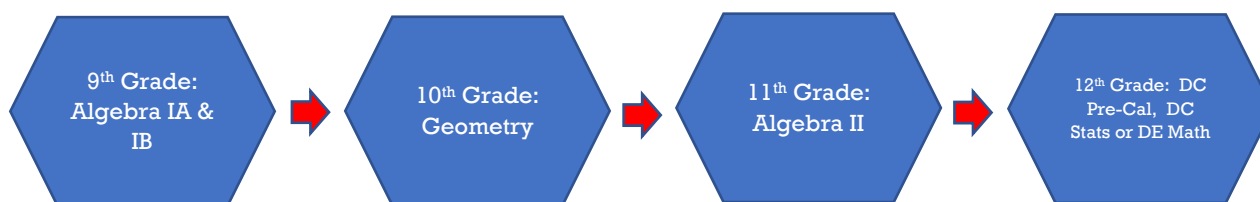
Math

Each student at LHS is required to complete a mathematics course each year. This is generally done in the sequence. Below are the two most noted sequences here at LHS.

For students not in the Honors sequence, the following Math path is needed:



For Students in the Honors sequence, the following path is recommended:



Algebra IA/B (2 Credits)

TN Course Code 31023 (A), 31024 (B)

Algebra I will use problem situations, physical models, and appropriate technology to extend algebraic thinking and engage student reasoning. Problem solving situations will provide all students an environment that promotes communication and fosters connections within mathematics to other disciplines and to the real world. The concepts emphasized in the course include functions, solving equations, slope as rate of change, and proportionality.

Honors Algebra IA/B (2 Credits)

TN Course Code 31023 (A), 31024 (B)

While still following the guidelines of Algebra I, honors level students should expect classroom discussions to be more in depth and explore topics in different ways. They should also expect assessments to be more difficult. Honors Algebra I students will also have a large project each nine-weeks.

Geometry (1 Credit)

TN Course Code 3108

Geometry: This class is a one semester examination of the basic procedures and reasoning of problems dealing with line segments, lines, angles, triangles, circles, quadrilaterals and other polygons. It will also review the concepts of area of these shapes and volume of the three-dimensional figures. Students will learn to justify statements in proofs and construct a simple proof in a two-column form. Geometry is a spatial oriented class that requires analytical thinking and problem-solving ability.



Honors Geometry (1 credit)**TN Course Code 3108**

This class is a one semester examination of the basic procedures and reasoning of problems dealing with line segments, lines, angles, triangles, circles, quadrilaterals and other polygons. It will also review the concepts of area of these shapes and volume of the three-dimensional figures. Students will learn to justify statements in proofs and construct a simple proof in a two-column form. Geometry is a spatial oriented class that requires analytical thinking and problem-solving ability. As an Honors class, this course will substantially exceed the content standards, learning expectations, and performance indicators of the standard Geometry course. Tests will include more short answer, constructed response and essay types of questions that require a deeper understanding of course material. Class lessons will proceed at a faster pace and be more in-depth than standard class lessons. Assignments will include more writing and require more explanation on the part of the students. This class also has a project that allows the student a chance to demonstrate creativity and course knowledge.

Algebra IIA/B (2 Credits)**TN Course Code 31033 (A), 31034 (B)**

Algebra 2 is a mathematics course designed for students who have completed Algebra 1 and Geometry. Topics covered will include: Linear Functions and Relations, Systems of Linear Equations and Inequalities, Graphing in Space, Polynomials and Rational Expressions, Sequences, Exponents and Logarithms, Probability, Matrices, and Trigonometric Functions and Identities.

Honors Algebra II (1 Credit)**TN Course Code 3103**

Honors Algebra 2 is an extension of the Honors Algebra 1 curriculum. Honors Algebra 2 is completed in 1 semester instead of the usual year-long Algebra 2 course. Algebra 2 builds a foundation of mathematics for those students going on to Pre-Calculus or an Advanced Statistics course.

SAILS Math (1 Credit)**TN Course Code 3181**

SAILS Math - a college-level math class administered by the State of Tennessee. This class is designed for students who are going to a college or university but do not have the required ACT score. This is a self-paced, computer-based course with the teacher as a facilitator and aide. Upon completion, the student will receive an equivalent ACT score of 19 or 21, depending on how far they go within the program. This class also counts at the fourth math credit. Prerequisite is an ACT math score of 16,17, or 18.

Bridge Math (1 Credit)**TN Course Code 3181**

A senior math class for those students not planning to go to college but need a fourth math credit. Successful completion of this class will satisfy that requirement. Bridge math focuses on basic Algebra 1 and Geometry topics.

Applied Mathematical Concepts (1 credit)**TN Course Code 3183**

This course is a 4th year senior level math course that will focus on the practical applications of mathematics. This course is to prepare students for both college and the workplace. Students taking this course should have at least a 20 on the Math portion of the ACT. This



course will provide a foundation for students entering a business application Calculus course or other general education mathematics course.

Dual Credit Pre-Calculus (1 credit)

TN Course Code 6432

Dual Credit Pre-calculus is a course developed and guided by the State of Tennessee to provide an opportunity for students to earn a college credit at no cost to them. This course is designed to mimic a college course and will require study time outside of class and a commitment to learn. At the end of the course, students will take an online exam which will determine if they will receive credit as a college course. Students will still receive high school credit as a dual credit course, but must make at least a 75% on the online test to receive college credit. Students will study limits and end behavior of functions. Solving, analyzing and graphing polynomials, including finding and analyzing roots, extrema, turning points and inflections will be studied with an emphasis on trigonometric functions. Unit circle applications, trigonometric identities, vectors, and polar coordinates are also included in the learning objectives for the course.

Dual Credit Probability & Statistics (1 credit)

TN Course Code 6433

SDC Introduction to Probability and Statistics is a college-level course taught at the high school level by trained high school teachers. Topics covered include: samples and sampling methods, representation of data, measure of center and variation, probability and statistics, discrete and normal probability distributions, sampling distributions and the central limit theorem, estimates and sample sizes, confidence intervals, hypothesis testing, and regression. Upon completion, students take the online challenge exam, which is used to assess mastery of the postsecondary-level learning objectives. Students which meet or exceed the exam 'cut score' receive college credit that can be applied to any Tennessee public postsecondary institution.

Dual Enrollment College Algebra (1 credit/ 3 college hours)

TN Course Code 4012

Roane State Course Code MATH 1130

A course in algebraic functions, their properties and uses-equations, inequalities, graphs, systems of linear equations, analytical geometry including ellipse and hyperbola. Applications are in the mathematics of finance as well as the laws of growth and decay in other areas. (Prerequisites: Two years of high school algebra and one year of geometry with an ACT of 21) Must be accepted to Roane State. An additional fee may be charged by Roane State.

Dual Enrollment Statistics (1 credit/3 college hours)

TN Course Code 4013

Roane State Course Code MATH 1530

A study of the descriptive and inferential branches of statistics including statistical design, graphs, measures of center, variation, and relative standing, elementary probability, discrete and normal probability distributions, confidence intervals, hypothesis testing, and linear correlation and regression. Non-calculus based. A TI-84 or comparable calculator is required. (Prerequisites: Two years of high school algebra and one year of geometry with an ACT of 19) Must be accepted to Roane State. An additional fee may be charged by Roane State.



Algebra 1A and 1B (2 Years/ 4 Credits):**TN Course Code 31025 (A) 31024 (B)**

Algebra 1A and 1B (2 Years) is an Algebra class designed for students with a math disability. These classes are designed to move at a slower pace, and have math intervention built into the curriculum to assist students who do not have a strong mathematical foundation. Placement is determined by IEP only.

Geometry A (1 credit)**TN Course Code 31083**

Geometry A is a course that will cover approximately one half of the topics that are in the geometry course. Triangles, quadrilaterals, angles and the relationships within and between them will be covered. There will be an emphasis on congruence theorems and recognizing and identifying corresponding parts in figures. Similarity between objects and area, perimeter and volume will also be covered. Placement in this course is determined by an IEP.

Geometry B (1 credit)**TN Course Code 31084**

Geometry B will pick up where Geometry A ended. There will be a review of the topics covered in Geometry A and then we will continue the study with circles, right triangle trigonometry, coordinate geometry and deeper analysis and application of geometry in modeling for real world applications. Placement in this course is determined by an IEP.

Science**Physical Science (1 Credit)****TN Course Code 3202**

An introductory course designed to allow students to explore the basic concepts of physical science. Students will be introduced to the history and nature of science. The course includes an introduction to the fundamental concepts of physics and chemistry. Emphasis is placed on inquiry-style learning and development of skills such as observing, inferring, data collecting, and graphing. Students will be encouraged to explore the relationship between science and everyday life.

Biology I (1 credit)**TN Course Code 3210**

This course guides students through the study of the nature of sciences, diversity of life, ecology, cells and cellular energy, biological evolution, and genetics. Laboratory investigations will be used in addition to supplement the course.

Honors Biology I (1 credit)**TN Course Code 3210**

Topics include cellular function, genetics, ecology, and classification schemes. This class is designed to be a higher level, inquiry-based study of biology. Students will utilize technology and be involved in extensive laboratory work. Problem solving and critical-thinking skills will be an essential part of the course. Enrolled students will be required to complete projects and formal lab write-ups.



Biology IA/B (2 credits)**TN Course Code 32103 (A) 32104 (B)**

This is a year-long course developed for students with specific learning disabilities. It will go through the same material as General Biology but it will be a slower pace. This class is a full year and the students will receive two science credits for it. Some of the topics covered include cells, photosynthesis, mitosis, ecology, and evolution.

Chemistry I (1 credit)**TN Course Code 3220**

This is a course in which we study the composition of matter and its reactions in various forms. We cover the following topics: scientific measurement, matter and change, atomic structure, the periodic table, ionic bonding, covalent bonding, chemical quantities, chemical reactions, stoichiometry, states of matter, gas laws, solutions, acids and bases, thermochemistry, and nuclear reactions. Prerequisite: completed Physical Science or Honors Biology I with a passing grade. In addition, since there is a heavy emphasis on the mathematics of chemistry, students should have successfully completed at least Algebra I before registering for this course.

Honors Chemistry I (1 credit)**TN course code 3220**

This is a course in which we study the composition of matter and its reactions in various forms. We cover the following topics: scientific measurement, matter and change, atomic structure, the periodic table, ionic bonding, covalent bonding, chemical quantities, chemical reactions, stoichiometry, states of matter, gas laws, solutions, acids and bases, thermochemistry, and nuclear reactions. To register for this course, students must have completed Physical Science or Honors Biology I with a passing grade. In addition, since there is a heavy emphasis on the mathematics of chemistry, students should have successfully completed at least Algebra I before registering for this course. As an honors course, there is a deeper treatment of topics, in which students explore not merely the facts or general knowledge, but the reasons behind them. Honors Chemistry gives students wider opportunities to engage in problem-solving activities, not just finding answers, but applying their knowledge and providing evidence to justify their conclusions.

Honors Physics (1 Credit)**TN Course Code 3231**

Physics is a one-credit one-semester high school science course. Typically offered every other year, students should be in or have completed Algebra II, Chemistry, and Biology. The course includes the following topics: The Science of Physics, Motion in One Dimension, Two Dimensional Motion and Vectors, Forces and Laws of Motion, Work and Energy, Momentum and Collisions, Circular Motion, and Gravitation among other items.

Honors Chemistry II (1 credit)**TN Course Code 3224**

This course is the sequel to Honors Chemistry I, so it continues and builds upon the material covered in that course, preparing students for chemistry at the college level. The course provides further insight into the composition of matter and its reactions in various forms. In addition to going into more depth on topics from Honors Chemistry I, we also cover the



following topics: solutions, energy and chemical change, oxidation-reduction reactions, and electrochemistry. As time allows, we touch other topics such as reaction rates, chemical equilibrium, acids and bases, and organic chemistry. To register for this course, students should have completed Honors Chemistry I or Chemistry I with an A or B. As an honors course, there is a deeper treatment of topics, in which students explore not merely the facts or general knowledge, but the reasons behind them. Honors Chemistry II gives students wider opportunities to engage in problem-solving activities, not just finding answers, but applying their knowledge and providing evidence to justify their conclusions. Assessments in Honors Chemistry II include more open-ended and essay-style questions to sharpen students' abilities to gather scientific data, synthesize relevant facts, and evaluate their results using accepted scientific methods.

Dual Enrollment Biology I (1 credit/4 college hours) TN Course Code 4003
Roane State Course Code BIOL 1110

Introduction to the study of Biology, Biological Chemistry, Cell Structure and Function, Cell Reproduction, Genetics and Inheritance. Each student is assessed a lab fee for this course. Must be accepted to Roane State. An additional fee may be charged by Roane State.

Dual Enrollment Biology II (1 credit/4 college hours) TN Course Code 4004
Roane State Course Code BIOL 1120

Evolution, Biological Diversity, Ecology. (Prerequisite: BIOL 1110) Each student is assessed a lab fee for this course. Must be accepted to Roane State. An additional fee may be charged by Roane State.

Agri Science (1 credit) TN Course Code 5957

This is an introductory course that prepares students for biology, subsequent science and agriculture courses, and postsecondary study. This course helps students understand the important role that agricultural science and technology plays in the twenty-first century. Upon completion of this course, proficient students will be prepared for success in more advanced agriculture and science coursework.

Anatomy and Physiology (1 credit) TN Course Code 5991

Prerequisite: Biology I and preferably Health Science Anatomy and Physiology is an upper level course designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a professional, working understanding of the transportation, respiration, excretory, and reproduction systems.



Honors Anatomy and Physiology (1 credit)**TN Course Code 5991**

Honor's A&P is a college prep class that is essential for students who wish to pursue careers in health care or for those who wish to develop a better understanding of structure and function of the human body. A&P skills are fundamental to success and required for many health care fields. This course will help prepare for students for challenging college A&P classes. Honor's Anatomy & Physiology students develop skills to analyze the parts of the body, how they function, and disorders that affect each organ system.

Social Studies/History**World History and Geography (1 Credit)****TN Course Code 3415**

World History is the study of civilizations from the ancient to modern era. We will cover Kings, Queens, and Guillotines, the 19th Century World, WWI and WWII, Pax Americana, and modern global events/affairs. Additionally, 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. The main objective of this course is to provide a historical/geographical education so that students can be successful in whatever path their life takes.

Honors World History and Geography (1 credit)**TN Course Code 3415**

Students will be exposed to material from a variety of media including lecture, text and assigned readings, videos, PowerPoint presentations, Internet assignments, and library research. COURSE OBJECTIVES: The main focus of this course is to help prepare students for success in college. Students will be expected to acquire knowledge of basic historical data which will be used to develop thinking skills such as comparing/contrasting, identifying and explaining cause/effect relationships, and relating events of the past to our own present existence. Students will be able to take effective notes from classroom lectures, a skill that is especially vital to those planning to further their education after Loudon High. Effective writing, speaking, and presentation skills will be a necessity for student success in the course. The course will also focus on other student/life skills involving test-taking skills, study skills, reading strategies, public speaking, and personal responsibility

United States History & Geography (1 Credit)**TN Course Code 3416**

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.

Dual Credit United States History II (1 credit)

TN Course Code

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. Statewide dual credit classes are college-level courses taught at the high-school level by trained high-school teachers. Course learning objectives are developed by Tennessee high school and college faculty in order to ensure alignment with post-secondary standards. All students enrolled in a statewide dual credit course take the online challenge exam, which is used to assess mastery of the postsecondary-level learning objectives. Students which meet or exceed the exam 'cut score' receive college credit that can be applied to any Tennessee public postsecondary institution.

Dual Enrollment US History (1 credit/3 college hours)

TN Course Code

Roane State Course Code HIST 2020

An exploration and analysis of major themes and events in the political, cultural, social, economic and intellectual history of the United States since 1877.

Economics (0.5 Credit)

TN Course Code 3431

Economics: is the study of how societies, governments, businesses, households, and individuals allocate their scarce resources to satisfy their needs and wants. Economics allows students to apply the information learned in class to their own lives and decision making.

United States Government (0.5 Credit)

TN Course Code 3417

U.S. Government: is the study of the U.S. Government past, present and future. Students learn knowledge of their nation's institutions and rules of law as they apply to social and human relationships. Participation in local government is encouraged!



Personal Finance (0.5 credit)**TN Course Code 3496**

This course explores the behaviors that one must do on a daily basis to achieve wealth. Investing, Budgeting, Debt, Insurance and Negotiating are just a few of the topics. We will utilize a great deal of Dave Ramsey's philosophies and how they can provide us with successful financial health.

Film Studies (1 credit)**TN Course Code 3435**

In addition to lectures, readings, and discussion, we will also use a seminar approach in our study of American Film. After viewing a particular film, we will formulate questions that, when answered, will assist us in understanding the social and cultural context in which the film was created. The class will be divided into small groups, who through research and class presentations, will hopefully begin to answer our questions.

Physical Education/Wellness/NJROTC**Wellness (1 credit)****TN Course Code 3303**

Wellness is a semester long course that covers fitness, nutrition, mental health and substance abuse. It also offers team sports, weight training, and fitness routines. Each student can participate regardless of gender, size or ability. There is no pre-requisite for Wellness.

Physical Education (0.5 Credit)**TN Course Code 3301**

Physical education is a course that focuses on the physical well-being of our students. This is an active class that takes part in activities that promote movement and generating lifetime skills to remain healthy. During this class, students will participate in group activities as well as individual sports.

Team Sports (1 credit)**TN Course Code 3302**

This course is designed to teach students different team sports while enhancing personal and social behaviors. The course is also designed to elicit opportunities to advance individual skill levels in different team sports. They will also be guided through a program that will improve their personal fitness level.

Weight Training (1 credit)**TN Course Code 3302**

This course will consist of a curriculum that challenges the student physically and mentally. Students will gain a stronger content knowledge of weight lifting components while learning proper form and function on specific lifts in the weight room. Students will obtain their grade through daily participation in a variety of different physical activities/exercises. Students can earn multiple credits in Weight Training.

NJROTC (1 credit per course; 8 courses available)**TN Course Code 3333**

LHS NJROTC program will provides all members an opportunity to experience a teamwork environment focused on citizenship, leadership skills development and academics which supports the LHS mission. Our goal in NJROTC is to lead our students in building self-reliance, self-discipline and self-esteem; and instill in them a sense of pride, integrity, patriotism and honor. Dependent on the amount of credits earned in the NJROTC program one can waive the following credits: Wellness, PE, Personal Finance and Government.

Fine Arts

Art 1 (1 credit)

TN Course Code 3501

In this course, you will learn the elements and principles of design, art history relating to other countries, artists, and art of the 20th Century. You will be tested over each subject in addition to creating artwork for the related subject. This course is designed to broaden your knowledge of art, and hopefully, give you an appreciation for it as well.

Advanced Art (1 credit)

TN Course Code 3502

Students delve with greater depth into a variety of media with a greater expectation of technical excellence, personal expression, creative thinking, and reflective problem solving. This course emphasizes creativity, artistic interpretation, independent exploration, and original artwork. They will also demonstrate their artistic mastery of a range of styles, topics, media, and personal expression. Students develop further understanding of the relationship between principles of design and composition as they explore style, thought, and productivity within the context of art history, art appreciation, and aesthetics.

Prerequisite: Teacher recommendation only.

General Music (1 credit)

TN Course Code 3505

In General Music, students will explore various styles of music, musical time periods, the uses of music, musical instruments, and music of other cultures. Students will also study how to read music and will learn how to play simple piano patterns. Students will present at least 3 research projects during the semester. Prerequisites: none.

Band (1 or 2 credits)

TN Course Code 3566

A performance-based class that involves marching band, concert band, color guard, and drumline. Instrumental students in this class enter with prior knowledge of playing an instrument, and are subject to a pre-requisite audition or recommendation of the middle school director. This class includes mandatory after school performances. Course can be taken for multiple credits.

Theatre Arts (1 credit)

TN Course Code 3520

In Theatre Arts, students will learn about pantomime, improv, voice and diction, acting techniques, and technical aspects of theatre through discussion and classroom participation. Students will develop their imagination and confidence onstage by creating characters, situations, plots, and conflicts in daily theatre activities. All theatre students will also participate in a final play performance for the school community. Prerequisites: none.



Advanced Theatre (1 credit)**TN Course Code 3521**

In Advanced Theatre, select theatre arts students will learn about acting, writing, directing, and technical aspects of theatre through discussion and classroom participation. Students will complete several theatre projects throughout the semester, individually and in small groups. All Advanced Theatre Arts students will participate in a final play performance for the school community. Prerequisites: Theatre Arts and theatre arts teacher recommendation. Course can be taken for multiple credits.

Chorus (1 credit)**TN Course Code 3570**

In Chorus, students with developing vocal skills will increase their vocal musicianship through rehearsing and performing various styles of music in varying degrees of difficulty. Students will participate in warm ups, guided small and large rehearsals, and some limited individual vocal exercises. Chorus members will also develop their music reading (theory) skills through lessons, drill, practice, and assessment. Students will also participate in several required concert performances at school and in the community. Prerequisites: pass vocal auditions conducted by the choral director. Course can be taken for multiple credits.

Ensemble (1 credit)**TN Course Code 3571**

In Ensemble, an advanced choral group, students will continue to increase their vocal musicianship through rehearsing and performing various styles of music in varying degrees of difficulty, as well as working in small groups to develop vocal arrangements and performance opportunities. Students will participate in warm ups, guided small and large rehearsals, and some individual vocal exercises. Students will also participate in several required concert performances at school and in the community. Prerequisites: Chorus or choral director recommendation and advanced vocal skills. Course can be taken for multiple credits.

Foreign Language**Spanish I (1 Credit)****TN Course Code 3021**

This course serves as an introduction to the basics of Spanish grammar and communication. Class activities integrate the four domains of listening, reading, writing, and speaking through the acquisition of Spanish for basic communication purposes. Class lessons focus on developing an understanding of the culture of Spanish-speaking countries and enable students to learn about different types of food, clothing, and music. Videos, computer programs, authentic documents, and a variety of enrichment activities are an integral part of the core program. The national standards (5Cs) of language learning are followed: Communication, Culture, Connections, Comparisons, and Community.

Spanish II (1 credit)**TN Course Code 3022**

This course builds upon the achievement and proficiency objectives of Spanish I. Class activities continue to expand and integrate the four domains of listening, reading, writing, and speaking through the acquisition of Spanish for enhanced communication purposes. Cultural and civilization topics are expanded upon. Videos, computer programs, authentic documents, computer software and a variety of enrichment activities are an



integral part of the core program. The national standards (5Cs) of language learning are followed: Communication, Culture, Connections, Comparisons, and Community.

Prerequisite: Successful completion of Spanish I, or passing of the exit exam for Spanish I with approval from Department

Honors Spanish III

TN Course Code 3023

Honors Spanish III is for the student that wants to really dive into the language and immerse themselves with Spanish knowledge, conversation, grammar, and culture. The student will continue to develop his skills of listening, speaking, reading and writing the target language. A variety of materials are used to assist in learning and reaching a higher level of proficiency. The student will have an overview of Spanish grammar and exposure to the culture of the Spanish-speaking world. Special projects will expand the student's knowledge of both the Spanish culture and language.

Honors Spanish IV

TN Course Code 3024

Honors Spanish IV is a continuation of learning in the Target language. It builds upon all levels of Spanish and what the student has learned in Spanish I, II, and III. This course ties it all together and prepares you for college Spanish. Goal is to be able to test out of your basic level Spanish course or test up. The class will continue to develop skills of listening, speaking, reading and writing in the target language.

Career & Technical Education:

Tech Team (1 credit)

TN Course Code 6105

This course will focus on implementing student involvement in our tech integration process. Students will learn the procedures for tech support for student computers as well as being a hands on group in our classrooms to assist teachers in need of tech support. Students will work directly with the Tech Supervisors and County Tech Department. Prior Technological experience is not required. This course can be taken multiple times, each time for credit.

Digital Art & Design 1 (1 credit)

TN Course Code 6084

This is the beginner class for Digital Art & Design. All students take this course 1st. Students are introduced to the Digital Design Profession and related industry equipment and software. Students will learn how to operate cameras, printers, scanners and Adobe software products to create videos, logos, artwork, web graphics, print materials and animations for advertising on various multi-media platforms.



Digital Art & Design 2 (1 credit)**TN Course code 6086**

Grades: 10-12 Prerequisites: Digital Art & Design 1

Description: This is the 2nd class for Digital Art & Design. All students must take DAD 1 to be eligible to take this class. Students will focus on the Profession of Photography and intermediate skills in Adobe Photoshop software. Students will learn advanced camera techniques to create advertising designs, logos, artwork, web graphics, print materials and animations for multi-media platforms. Students will maintain an Adobe Portfolio of all design work as part of their final grade.

Digital Art & Design 3 (1 credit)**TN Course Code 6087**

Grades: 11-12 Prerequisites: Digital Art & Design 1 & 2

(Repeats of this class are allowed for an additional credit) Description: This is the advanced class for Digital Art & Design. All students must take DAD 1 & 2 to be eligible to take this class. Students will choose a focus of study from one of the following categories and work on self-guided projects that will be documented in a Adobe online portfolio. Choices of study: Print design, Photography, Video Production, Art & Illustration or Animation.

Principles of Manufacturing (1 credit)**TN Course Code C13H05**

Course is designed to provide students with exposure to various occupations and pathways in the Advanced Manufacturing career cluster, such as Machining Technology, Electromechanical Technology, Mechatronics, and Welding. In order to gain a holistic view of the advanced manufacturing industry, students will complete all core standards, as well as standards in two focus areas. Throughout the course, they will develop an understanding of the general steps involved in the manufacturing process and master the essential skills to be an effective team member in a manufacturing production setting. Course content covers basic quality principles and processes, blueprints and schematics, and systems. Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality. Upon completion of the Principles of Manufacturing course, students will be prepared to make an informed decision regarding which Advanced Manufacturing program of study to pursue.

Welding I (1 credit)**TN Course Code C13H12**

Course is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the advanced manufacturing industry. Proficient students will develop proficiency in fundamental safety practices in welding, interpreting drawings, creating computer aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication, basic shielded metal arc welding (SMAW), mechanical and thermal properties of metals, and quality control. Upon completion of this course, proficient students will be able to sit for the AWS SENSE Entry Level Welder certification and will be



prepared to undertake more advanced welding coursework.

Welding II (1 credit)

TN Course Code C13H10

Course is designed to provide students with opportunities to effectively perform cutting and welding applications of increasingly complexity used in the advanced manufacturing industry. Proficient students will build on the knowledge and skills of the Welding I course and apply them in novel environments, while learning additional welding techniques not covered in previous courses. Specifically, students will be proficient in (1) fundamental safety practices in welding, (2) gas metal arc welding (GMAW), (3) flux cored arc welding (FCAW), (4) gas tungsten arc welding (GTAW), and (5) quality control methods. Upon completion of the Welding II course, proficient students will be eligible to complete the American Welding Society (AWS) Entry Welder or the AWS SENSE Advanced Welders qualifications and certifications.

Dual Enrollment Welding (2 credits)

TN Course Code C13H03

Dual Enrollment Welding is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the advanced manufacturing industry. Proficient students will develop proficiency in fundamental safety practices in welding, interpreting drawings, creating computer aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication, basic shielded metal arc welding (SMAW), mechanical and thermal properties of metals, and quality control. Upon completion of this course, proficient students will understand the requirements to pursue the American Welding Society (AWS) Entry Welder qualification and examination and will be prepared to undertake more advanced welding coursework.

***Courses are open to juniors and seniors. Courses are taught through Dual Enrollment with Tennessee College of Applied Technology (TCAT) Harriman. Students will earn high school credit as well as hours towards their welding certificate at TCAT. Ideal candidates will continue on to the adult program. All courses are taught at Loudon County Technology Center in Lenoir City.

Agri science (1 credit)

TN Course Code 5957

This is an introductory course that prepares students for biology, subsequent science and agriculture courses, and postsecondary study. This course helps students understand the important role that agricultural science and technology plays in the twenty-first century. Upon completion of this course, proficient students will be prepared for success in more advanced agriculture and science coursework.

Small Animal Science (1 credit)

TN Course Code 5958

This is an intermediate course in animal science and care for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers anatomy and physiological



systems of different groups of small animals, as well as careers, leadership, and history of the industry. Upon completion of this course, proficient students will be prepared for more advanced coursework in veterinary and animal science.

Large Animal Science (1 credit)

TN Course Code 6116

This is an applied course in veterinary and animal science for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers anatomy and physiological systems of different groups of large animals, as well as careers, leadership, and history of the industry. Upon completion of this course, proficient students will be prepared for success in the level-four Veterinary Science course and further postsecondary training.

Veterinary Science (1 credit)

TN Course Code 5961

This is an advanced course in animal science and care for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers principles of health and disease, basic animal care and nursing, clinical and laboratory procedures, and additional industry-related career and leadership knowledge and skills. Upon completion of this course, students will be able to pursue advanced study of veterinary science at a postsecondary institution.

Greenhouse Management (1 credit)

TN Course Code 5954

This is an applied-knowledge course designed to prepare students to manage greenhouse operations. This course covers principles of greenhouse structures, plant health and growth, growing media, greenhouse crop selection and propagation, and management techniques. Upon completion of this course, proficient students will be equipped with the technical knowledge and skills needed to prepare for further education and careers in horticulture production.

Health Science Education (1 Credit)

TN Course Code 5998

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 student proficient in Health Science Education 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. Satisfies one credit in any program of study in Health Science

Anatomy & Physiology (1 credit)

TN Course Code 5991

Prerequisite: Biology I and preferably Health Science Anatomy and Physiology is an upper level course designed to develop an understanding of the structures and functions of the



human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a professional, working understanding of the transportation, respiration, excretory, and reproduction systems. Satisfies one credit in any POS in Health Science.

Honors Anatomy & Physiology (1 credit)

TN Course Code 5991

Honors Anatomy & Physiology offers a lab science credit and is a challenging course that covers each organ system's parts, how they function, and how various diseases can affect them. Knowledge of A&P is required for any health career. This class builds on information learned in Health Science and helps students prepare to take college A&P.

Diagnostic Medicine (1 credit)

TN Course Code 5994

Diagnostic Medicine is an elective credit that helps prepare students for a career in the diagnostic area. This class includes units and labs in radiology, lab, cardiac, respiratory, and more. It is a capstone class that should be taken after HSE and A&P.

Rehabilitation Careers (1 Credit)

TN Course Credit 5990

1 Prerequisite: Health Science, Anatomy Grade: 10th, 11th, 12th This is an applied course designed to prepare students to pursue careers in rehabilitation services. Upon completion of this course, a proficient student will be able to identify careers in rehabilitation services, recognize diseases, disorders or injuries related to rehabilitation services and correlate the related anatomy and physiology then develop a plan of treatment with appropriate modalities. Satisfies one credit in the Sport & Human Performance POS.

Medical Therapeutics (1 Credit)

TN Course Code 5999

1 Prerequisite: Health Science Grade: 10th, 11th This is an applied course designed to prepare students to pursue careers in therapeutic and nursing 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. Satisfies one credit in the Emergency Services POS.

Dual Enrollment- Emergency Medical Services (1 Credit) TN Course Code 5995

1 Prerequisite: Health Science, Anatomy, and/or Medical Therapeutics Grade: 11th, 12th This is a capstone course in the Emergency Medical Services program of study and is designed to prepare students to pursue careers in the fields of emergency medicine. Upon completion of this course, proficient students will be able to: identify careers and features of the EMS system; define the importance of workforce safety and wellness; maintain legal and ethical guidelines; correlate anatomy and physiology concepts to the patient with a medical



or traumatic emergency. Must be accepted to Roane State. An additional fee may be charged by Roane State.

Maintenance and Light Repair I, II, III, IV (1 credit each)

TN Course Codes 5879, 5880, 5881, 5882

MLR I course prepares students for entry into Maintenance and Light Repair 2,3 and 4. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing all of the Maintenance and Light Repair courses, students may enter automotive service industry as an ASE Certified MLR Technician.

Hours earned in the Maintenance and Light Repair courses may be used toward meeting National Automotive Technicians Education Foundation (NATEF) standards and Tennessee Department of Education standards. NATEF requires that 95% of the P-1 tasks, 80% of the P-2 tasks, and 50% of the P-3 tasks will be accomplished. These tasks are notated in these standards.

Dual Enrollment Diesel Technology (2 credits)

TN Course Code C20H06

The Diesel Technology program offers training in the inspection and servicing of heavy trucks. Students to proper procedures and practices for preventive maintenance and servicing. Students learn to perform entry-level technician inspection tasks.

This program also offers training in the diagnosis and repair of the electrical systems of medium and heavy trucks. Students apply principles of electricity and electronics to diesel technology and develop diagnostic skills. The course provides training in the use of electrical test equipment such as digital multimeters (DMM) and ammeters. Students will also receive training in the testing and repairing of diesel engines and related systems. The course introduces fundamental principles of diesel engine operation. Students will learn to perform inspections, tests, and measurements for diagnosis and to perform needed repairs. Course content prepares students to continue in post secondary education.

***Courses are open to juniors and seniors. Courses are taught through Dual Enrollment with Tennessee College of Applied Technology (TCAT) Harriman. Students will earn high school credit as well as hours towards their diesel technology certificate at TCAT. Ideal candidates will continue on to the adult program after high school graduation. All courses are taught at Loudon County Technology Center in Lenoir City

Culinary Arts I (1 credit)

TN Course Code 5979

Culinary Arts I equips students with the foundational knowledge and skills to pursue careers in the culinary field. Upon completion of this course, proficient students will have knowledge in the components of commercial kitchen safety and sanitation, history of food service industry, nutrition, recipe basics, proper kitchen tools and hand equipment and



kitchen staples. Throughout the course students will gain experience in commercial food production and service operations while preparing for further training at the post-secondary level.

Culinary Arts II (1 credit)

TN Course Code 5980

Culinary II is an applied-knowledge course to prepare students for careers in the culinary field. Upon completion of this course proficient students will have an understanding of commercial kitchen safety and sanitation, menu planning, food presentation, purchasing and inventory, cooking principles, and food preparation skills. Students will gain experience in commercial food production and service operations, while preparing for further training in the culinary arts program of study the secondary and postsecondary levels.

Culinary Arts III (1 code)

TN Course Code 5981

Culinary Arts III is an advanced course intended to further equip students with the skills and knowledge needed to pursue a variety of careers in the culinary field. Upon completion of the course, students will be proficient in components of commercial kitchen safety and sanitation, dining room service, food preparation and presentation, bakeshop preparation skills and equipment, and advanced cooking principles. Students will gain experience in commercial food production and service operations, while preparing for further training at the postsecondary level.

HVAC I, II, III, IV (1 credit per class)

Introduces students to basic skills and knowledge related to residential and commercial heating, ventilation, air conditioning, and refrigeration. Topics covered include electricity, thermodynamics, psychometrics, diagnostic, forced air furnaces, air distribution systems, and heating/cooling load analysis; course gives students a substantial skill and knowledge foundation typically required for apprentice HVAC/R technicians; provides school-based and work-based learning opportunities for students; and prepares students for entry level employment, advanced training in HVAC/R and entry into post-secondary education.

Computer Applications (1 credit)

TN Course Code 5891

Computer Applications is a foundational course intended to teach students the computing fundamentals and concepts involved in the use of common software applications. Upon completion of this course, students will gain basic proficiency in word processing, spreadsheets, databases, and presentations. Students will learn to use the Microsoft Office suite of programs.

Virtual Enterprise International 1 (1 credit)

TN Course Code 5900

Virtual Enterprise International is a simulated business environment. The VE students will be involved in actual on-the-job work experiences, including accounting, personnel administration, management, and marketing. The only difference between the VE and an



actual business is that no material goods are produced or legal tender exchanged. Virtual Enterprise International 1 credit substitutes for Economics credit.

Virtual Enterprise International 2/Business Management (1 credit)

TN Course Code 5889

Business Management focuses on the development of the planning, organizing, leading, and controlling functions required for the production and delivery of goods and services. This applied knowledge course addresses the management role of utilizing the businesses' resources of employees, equipment, and capital to achieve an organization's goals. Student will participate in a continuing project throughout the course in which, individually or in teams, they will make recommendations to improve an existing business.

Accounting 1 (1 credit)

TN Course Code 5910

Accounting 1 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. Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes.

Early Childhood Education Careers I (ECEC I) (1 credit)

TN Course Code 6015

ECEC is a foundational course in the Education and Training career cluster intended to prepare students for careers as childcare providers, nannies, preschool teachers, and more. Course content covers the foundation of childhood development services, careers, provider responsibilities and aptitudes, and fundamentals of child development. Upon completion of this course, students will have created artifacts for inclusion in a course portfolio, which will continue with them throughout the program of study.

Early Childhood Education Careers II (ECEC II) (1 credit)

TN Course Code 6016

ECEC is an intermediate course for students interested in learning more about becoming an early childhood teacher, nanny, or childcare provider. This course covers the components of curriculum planning, learning, screening and assessing, special populations, and educational technology. Students will observe educators in action, practice specific skills, and add personal work products to a course portfolio. Upon completion of this course, proficient students will be able to pursue more advanced coursework in the ECEC program of study.

Early Childhood Education Careers III (ECEC III) (1 credit)

TN Course Code 6017

Early Childhood Education Careers III (ECEC III) is an applied-knowledge course for students interested in becoming an early childhood teacher, nanny, or childcare provider. This course covers the components of the learning environment, planning age appropriate activities, using activities for learning, and developing communication skills. If available,



students may participate in a work-based learning component of instruction and add work products to a course portfolio. Upon completion of this course, proficient students will be prepared to participate in the capstone ECEC IV course and/or continue their studies at the postsecondary level.

*These classes must be taken in a sequence ECED 1, ECED 2, ECED 3

Construction Core (1 credit)

TN Course Code 6073

Course Description 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 Page 2 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.

Carpentry I (1 credit)

TN Course Code 6164

Structural Systems I prepares students for careers in residential and commercial carpentry. Upon completion of this course, proficient students will be able to demonstrate knowledge and skill in framing buildings. Students will be able to frame floors, walls, ceilings, roofs, and stairs while safely employing tools and interpreting construction drawings to complete projects. Emphasis is placed on demonstrating proper measurement and application of mathematical concepts. Standards in this course also include principles of the construction industry and business and project management.

Carpentry II (1 credit)

TN Course Code 6165

Structural Systems II is an advanced-level course that builds on the introductory skills learned in the Fundamentals of Construction and Structural Systems I courses. This course will explore advanced framing, the physics of structural loads, and the coverings and finishes of structural systems. Upon completion of this course, proficient students will be able to install interior and exterior finishing, including roofing, siding, thermal and moisture protection components, drywall, doors, and trim. Throughout the course, students will interpret construction drawings to complete projects, implementing material estimating procedures and safe working practices. Standards in this course also expand on principles of the construction industry and delve deeper into business and project management strategies.

Work-Based Learning (1 credit)

TN Course Code 6105

Prerequisite: Students must have good attendance along with recommendation from teachers.

LHS students can earn up to 2 credits per academic year of Work-Based Learning. Work-Based learning is a proactive approach to bridging the gap between high school and high demand high skill careers in Tennessee. Students build on classroom based instruction to



develop employee ability skills that prepare them for success in post-secondary education and future careers. Through experiences like internships, apprentices and paid work experience, juniors and seniors **16 years or older** may earn high school credit for Work-Based learning experiences. Course can be repeated multiple times for credit.

Senior Specific Classes:

**Senior Capstone/ Project (Skinny for students enrolled in English 4)
(1 credit for students in DE Composition I):** **TN Course Code 3500**

The goal of the Senior Capstone class at Loudon High School is to graduate seniors who are prepared to thrive in the world after high school. The course is designed to reinforce vital skills for success in the workforce, college, and digital culture in which we now live. Seniors will take this course as a requirement for graduation, and it will be factored into their final grade for English IV. Throughout the semester, students should be prepared to focus on a career readiness unit which will include a functional cover letter and resume, a digital literacy unit which will enhance their knowledge of online life, and a research unit which will require them to expand their knowledge of current events and the world around them as well as make a formal presentation at the end of the course.

Special Education

Reading Intervention (1 credit) **TN Course Code 9724**

In this class, you will be exposed to a variety of research-based programs and practices that will improve your fluency and comprehension in reading to help you reach grade level proficiency. Weekly probes will be used to monitor progress and include but are not limited to RCBM and MAZE assessments. The program standards for this class are based on the foundational Tennessee Ready Standards for English.

Math Intervention (1 credit) **TN Course Code 9724**

Throughout this course students will interact with various math materials to help increase their overall mathematical abilities. We will begin the course with a math level placement test to determine the student's areas of strengths and their areas of needs. From this data we will proceed to address those areas of with intense intervention. We will use hands-on material, computer activities, timed-assessments, and other activities that are appropriate for the students.

Life and World Skills (multiple credits available) **TN Course Code 9724**

Life and World Skills covers Functional Math, Reading, and Writing. We discuss dealing with peer pressure, banking skills, healthy life styles, setting goals, getting along with others, getting a job, and independent living skills. No pre-requisite needed.



Project ABLE (multiple credit available)

TN Course Code 9724

Project ABLE is a community vocational training program that offers academic learning and life skills in the classroom and job skills at local businesses. It is designed to promote students' success during their high school years. The ultimate goal is to provide common core academic learning in addition with life skills and job skills so students can gain employment after graduation from high school.

Project ABLE offers a structured schedule during Blocks 1 & 2 where students spend two days (Wednesday and Thursday) in the classroom and three days (Monday, Tuesday, Friday) on job sites at local businesses. Students selected to participate in Project ABLE are not considered employees. They volunteer their time and do not receive a paycheck from any of the businesses. Students will go to their job sites September - April during the school year. One to three students will be assigned with a teacher at each work site along with a business employee or manager.

Life & Behavior Skills Class (Multiple credits available)

TN Course Code 9724

In this class we will work on developing organizational skills, coping skills, time management skills, as well as how to problem solve situations. The development of these skills will contribute to opportunities to be college and career ready as well as prepare them for the rigors of every day real world scenarios.

