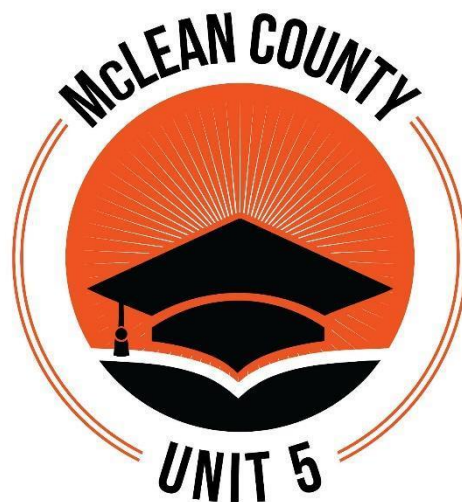

2024-2025

McLean County Unit District No. 5

Freshman Course to Career Guide



Educating each student to achieve personal excellence

Name: _____ Birthdate: _____

Winter FAST Scores: aMath _____ aReading _____

The following courses are available to incoming freshmen (9th graders) at both high schools. To find out more specific information about each course and possible prerequisites, refer to the *Course to Career Guide*. The number in parentheses indicates the credit for each class. *****Students must select a Math, English and PE/Health course. Due to facility limitations, students may be placed in a PE course other than the one selected.**

Normal Community & Normal West

2024-2025 Freshmen Course Choices

HOMEROOM (WEST ONLY)

HMR 101/102	A - D
HMR 111/112	E - H
HMR 121/122	I - M
HMR 131/132	N - Se
HMR 141/142	Sf - Z

AGRISCIENCE & TECHNOLOGY

AGR 101/102	Introduction to Agriculture, Food & Natural Resources (AFNR) (1.0)
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ART

ART 061/062	Creative Careers in Art (0.5)
ART 121/122	Graphic Design I (0.5)
ART 132	Graphic Design II (0.5)
ART 151/152	Drawing & Painting I (0.5)
ART 162	Drawing & Painting II (0.5)
ART 201/202	Ceramics & Sculpture I (0.5)
ART 212	Ceramics & Sculpture II (0.5)

BUSINESS

BUS 051/052	Introduction to Business (1.0)
BUS 111/112	Digital Productivity (0.5)
BUS 211/212	Digital Creativity (0.5)
BUS 301/302	Office Keyboarding Apps (1.0)

COMPUTER SCIENCE

CSC 151/152	Computer Science Essentials (1.0)
CSC601/602	Cyber Security (1.0)

ENGLISH***

ENG 151/152	English I (1.0)
ENG 171/172	Honors English I (1.0)

FAMILY & CONSUMER SCIENCE

FCS 111/112	Culinary Arts I (0.5)
FCS 122	Culinary Arts II (0.5)
FCS 150/159	Blended Child Development (0.5) (only if interested in Education Pathway)
FCS 301/302	Foundations of Fashion (0.5)
FCS 341/342	Clothing Construction

FOREIGN LANGUAGE

FOR 111/112	French I (1.0)
FOR 121/122	French II (1.0)
FOR 211/212	German I (1.0)
FOR 221/222	German II (1.0)
FOR 311/312	Spanish I (1.0)
FOR 321/322	Spanish II (1.0)
FOR 411/412	Spanish for Heritage Speakers (1.0)

MATH***

MAT 151/152	Pre-Algebra (1.0)
MAT 321/322	Algebra I (1.0)
MAT 521/522	Geometry (1.0)
MAT 601/602	Honors Geometry (1.0)
MAT 721/722	Honors Algebra 2 (1.0)

MUSIC

MUS 211/212	Concert Choir (1.0)
MUS 231/232	Concert Orchestra (1.0)
MUS 141/142	Concert Winds (1.0)

PHYSICAL EDUCATION***

PHY 051/052	Health (0.5)
PHY 101 & DRV 101	1st Qtr Driver's Education / Swim (0.5)
PHY 111 & DRV 111	Swim / 2nd Qtr Driver's Education (0.5)
DRV 102 & PHY 102	3rd Qtr Driver's Education / Swim (0.5)
PHY 112 & DRV 112	Swim / 4th Qtr Driver's Education (0.5)
PHY 131/132	Foundations of Fitness (0.5)
PHY 601/602	Water & Land Activities (0.5)
PHY 631/632	Advanced Aquatics (0.5)

*** If a student turns 15 after December 31, 2023 they WILL NOT take Driver Education until their sophomore year**

SCIENCE

SCI 101/102	Biology (1.0)
SCI 201/202	Honors Biology (1.0)

SOCIAL STUDIES

SOC 101/102	Regional World Studies (1.0)
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STUDY HALL (No Credit)

STH 101	Study Hall 1 st Semester (0)
STH 102	Study Hall 2 nd Semester (0)

TECHNOLOGY

TEC 081/082	Intro to Technology Concepts (1.0)
TEC 251/252	Intro to Metal & Woods Technology (1.0)
TEC 411/412	Intro to Engineering Design (1.0)
TEC 491/492	Intro to Animation & Rendering (1.0)

2024-2025 FRESHMAN COURSE CHOICES

AGRISCIENCE & TECHNOLOGYCOURSE DESCRIPTIONS

AGR 101/102 Introduction to Agriculture, Food & Natural Resources (AFNR) (Yearly 1 Credit) (9, 10, 11, 12)

Students participating in the Introduction to Agriculture, Food, and Natural Resources (AFNR) course will experience hands-on activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. In addition, students will make connections between lessons, college and career readiness and their development as leaders.

**This course is designated as a STEM Concentration Course.*

ART COURSE DESCRIPTIONS

ART 061/062 CREATIVE CAREERS IN ART (Semester ½ Credit) (9, 10, 11, 12)

The purpose of this course is to introduce students to a variety of viable career options in the visual arts. Students will spend time exploring and engaging with different media, techniques, and processes that are prevalent in many art-based career paths. This course will be offered both semesters.

ART 121/122 GRAPHIC DESIGN I (Semester ½ Credit) (9, 10, 11, 12)

Graphic Design is designed to give students an introduction to the world of graphic art. Students will learn to create Graphic Design using the same tools and techniques as professional designers. The course divides graphic art into three areas: 1) Page layout, 2) Digital illustration, and 3) Photo enhancing. Students will learn to use professional software applications in those three areas. Students will gain experience useful in careers in journalism, graphic design, photography, printing, and communications. This course will be offered both semesters.

ART 131/132 GRAPHIC DESIGN II (Semester ½ Credit) (9, 10, 11, 12) Prerequisite: Graphic Design I

This course continues to include giving students experience in creating graphic art works. In this class, students continue to use the same tools and techniques as professional designers, but use role-playing and problem-based learning to solve design problems for real-world companies and organization. Students will learn more about specific graphic designers, and the career itself. Students will build upon prior knowledge in Graphic Design I to engage in more complex decision-making. The course divides graphic design into three areas: 1) Page layout, 2) Digital illustration, and 3) Photo enhancing. Students will learn to use professional software applications in those three areas. Students will gain experience useful in careers in graphic design, advertising, marketing, photography, printing, journalism, and communications.

ART 151/152 DRAWING & PAINTING I (Semester ½ Credit) (9, 10, 11, 12)

This course will focus on a variety of drawing and painting methods and techniques to help students develop their basic skills in Drawing and Painting. Students will review the elements and principles of design and support those concepts with historical and cultural examples. This introduction will allow students to find individual areas of interest, so they can further pursue those areas of interest. This course will be offered both semesters.

ART 161/162 DRAWING & PAINTING II
(Semester ½ Credit) (9, 10, 11, 12)

Prerequisite: Drawing & Painting I

Drawing and Painting II focuses on allowing students the opportunity to expand on areas they learned about in Drawing and Painting I. The course introduces students to more complex drawing and painting tools, techniques and media. This course continues to include art history, aesthetics, criticism, and production. Students will find themselves doing more independent problem solving. The course is designed for students who want to continue their painting and drawing experience. This course will be offered both semesters.

ART 201/202 CERAMICS & SCULPTURE I
(Semester ½ Credit) (9, 10, 11, 12)

This course will review elements and principles of design as they relate to three-dimensional problem solving. Students will work with a variety of media and learn the basic skills used to create three-dimensional artwork. Concepts will be supported with artwork from other cultures and historical periods.

ART 211/212 CERAMICS & SCULPTURE II
(Semester ½ Credit) (9, 10, 11, 12)

Prerequisite: Ceramics & Sculpture I

This course will allow students an opportunity to expand on what they learned in Ceramics & Sculpture I. This course introduces students to more complex Ceramics and Sculpture tools, techniques and media. This course continues to include art history, aesthetics, criticism, and production. Students will find themselves doing more student directed problem solving and study.

BUSINESS COURSE DESCRIPTIONS

BUS 051/052 INTRODUCTION TO BUSINESS
(Yearly 1 Credit) (9, 10)

Prerequisite: None

This is a one-year course designed to teach students essential life skills necessary for success in today's world. This course includes basic knowledge of our economy, how it functions and the role of the consumer. Topics covered include basic business, banking, budgeting money, career planning, insurance, investing, saving, taxes and using credit wisely. Concepts of insurance, finance, accounting, marketing, management, and business organization are also introduced. There is an emphasis on emerging business technologies, professionalism, and maintaining positive business interactions within the classroom.

**Successful completion of Introduction to Business fulfills the State Consumer Education Requirement for high school graduation.*

BUS 111/112 DIGITAL PRODUCTIVITY
(Semester ½ Credit) (9, 10, 11, 12)

Prerequisite: None

In this one-semester computer course, students will be introduced to features of Microsoft Word, Excel, PowerPoint and Access that they will use in college and/ or career. This course also includes the integration of social media applications that would be used in a business setting to promote a product or service. Applications will focus on a variety of effective and visually appealing activities/projects to help increase students' success in high school, college and the workplace.

BUS 211/212 DIGITAL CREATIVITY
(Semester ½ Credit) (9, 10, 11, 12)

Prerequisite: None

Students will learn the essentials of Adobe programs such as Photoshop, Illustrator, and InDesign. Audio and video editing and coding will also be covered. Students will use these skills to create interesting and highly polished materials that a business would use. These materials include app/logo creation, creating

a website and promotional materials like tv, radio, and magazine ads. Students will also have the opportunity to work with specialized hardware such as tablets, poster printers and vinyl sticker cutters.

BUS 301/302 OFFICE KEYBOARDING APPLICATIONS
(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: None

This is a one-year course designed for students to learn fundamental keyboarding skills at a slower, more detailed pace. Skill is developed in controlling the keyboard and operative parts of the computer. In addition to developing keyboarding speed and accuracy skills, students will be introduced to the basics of Microsoft Word, Excel, PowerPoint, & Publisher. Applications will focus on a variety of effective and visually appealing activities/projects to help increase students' success in all areas of academics and careers. All work is completed during class. Successful completion of this course is a prerequisite for Computer Applications II and Web Design.

COMPUTER SCIENCE COURSE DESCRIPTIONS

CSC 151/152 COMPUTER SCIENCE ESSENTIALS
(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: None

Computer Science Essentials exposes students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

**This course is designated as a STEM Concentration Course.*

CSC601/602 CYBERSECURITY
(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: None

Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely. This course is a Project Lead the Way course that offers the following benefits: Sparks Interest and Fosters In-Demand Skills. Introduces Relevant Cybersecurity Skills in an Engaging, Secure, and Responsible Way. Connected to Industry and Aligned to Standards. Ensures Access to the Most In-Demand and Relevant Experience. Provides More Opportunities for Students to Engage in Computer Science. **This course is designated as a STEM Concentration Course.*

ENGLISH COURSE DESCRIPTIONS

ENG 151/152 ENGLISH I
(Yearly 1 Credit) (9)

This genre-based course includes an analysis of various literary types: short story, poetry, nonfiction, drama, and the novel. Composition instruction will vary according to the type of literature being studied. Speech, grammar and research skills will be taught within each unit.

ENG 171/172 HONORS ENGLISH I
(Yearly 1 Credit) (9)

Mastery of 8th grade ELA standards or teacher recommendation.

This honors course enriches the content covered in English I by covering more difficult texts and emphasizing advanced writing and critical thinking skills. This genre-based course includes an analysis

of various literary types: short story, poetry, nonfiction, drama, and the novel. Composition instruction will vary according to the type of literature being studied. Speech, grammar and research skills will be taught within each unit.

FAMILY CONSUMER SCIENCES COURSE DESCRIPTIONS

FCS 111/112 CULINARY ARTS I **(Semester ½ Credit) (9, 10, 11, 12)**

Culinary Arts introduces and explores the basic principles of food preparation including: kitchen math and measurement, kitchen safety and sanitation, knife skills, and application of cooking methods. A variety of recipes will be used to practice cooking techniques, explore tastes and develop the palate. Students will have the opportunity to take the ServSafe Food Handler Certification test. This certification is required by all restaurants and food service providers in the State of Illinois for employment.

FCS 122 CULINARY ARTS II **(Semester ½ Credit) (9, 10, 11, 12)** **Prerequisite: Successful Completion of Culinary Arts I**

Culinary Arts II students will continue to demonstrate culinary skills in the lab with an emphasis on cooking techniques. Students will apply the principles learned in Culinary Arts I as they take their skills to the next level, learning about stocks, soups and sauces, pasta techniques, breads, regional and international food practices, cakes, and pastries.

FCS 150/159 BLENDED CHILD DEVELOPMENT **(Semester ½ Credit) (9, 10, 11, 12)**

If you are interested in working with children, Child Development is essential to your future. You will gain fundamental knowledge and skills to care for and guide children from birth to early adolescence. Encouraging growth and development of the physical, social/emotional, cognitive, and language development will be the focus. Students taking Child Development will have the ability to earn the Gateways to Opportunity Level I Credential. This statewide accreditation program prepares students for careers working with children and their families in a professional environment. Child Development is a prerequisite for the Educating Young Children course. For additional information, please see: <http://www.ilgateways.com>, or FCS Building Chair.

FCS 301/302 FOUNDATIONS OF FASHION **(Semester ½ Credit) (9, 10, 11, 12)**

This course is for anyone interested in the fashion industry. Units of study include influences on clothing, the fashion world, elements of design, textiles, and careers in fashion.

FCS 341/342 CLOTHING CONSTRUCTION **(Semester ½ Credit) (9, 10, 11, 12)** **Prerequisite: "C" or higher in Foundations of Fashion**

This course will cover the basics of clothing construction skills including hand sewing, sewing machine skills, and garment construction techniques.

FOREIGN LANGUAGE COURSE DESCRIPTIONS

FIRST YEAR LANGUAGE

FOR 111/112 FRENCH I

FOR 211/212 GERMAN I

FOR 311/312 SPANISH I

(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: None

The aim of this course is to provide students with a basis for learning a foreign language as it is spoken and written today. Students will receive instruction in the grammar and structure of the language. Emphasis is given to developing the students' basic language skills: listening comprehension, speaking,

reading and writing. Aural and oral proficiency is stressed. A second aim is to increase the students' awareness and understanding of the people and culture of the target language. Students are assessed using Standards Based Grading Methods and is based upon listening, reading, writing and speaking competence.

SECOND YEAR LANGUAGE

FOR 121/122 FRENCH II

FOR 221/222 GERMAN II

FOR 321/322 SPANISH II

(Yearly 1 Credit) (10, 11, 12)

Prerequisite: Pass Level I or meet requirements of Placement Exam

This course, a continuation of the first-year program, provides students with an in-depth explanation of grammar and language structure. Listening, writing and speaking skills are expanded and an understanding of the language and culture is further developed. Students are assessed using Standards Based Grading Methods and are based upon listening, reading, writing and speaking competence.

FOR 411/412 SPANISH FOR HERITAGE SPEAKERS

(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: Spanish must be first language at home

This one-year course offers heritage Spanish-speaking students the opportunity to study Spanish formally in the same way native English speakers study English language arts. The course enables students to develop, maintain and expand their heritage language skills. Study will focus on Spanish grammar and syntax (including spelling and accents), regional literature in a wide variety of literary genres, vocabulary development, and writing for a variety of purposes. Students will be exposed to a wide range of heritage history and culture from across the Spanish-speaking world. Students from a Spanish heritage background who are concerned about placement in Spanish can take Spanish for Heritage Speakers and upon completion consider moving to Spanish II, III or IV.

MATHEMATICS COURSE DESCRIPTIONS

MAT 151/152 PRE-ALGEBRA

(Yearly 1 Credit) (9) (Base Level)

Prerequisite: Teacher Recommendation

Pre-Algebra is a course for students who experience great difficulty in 8th grade mathematics. This course builds upon the essential skills of arithmetic as they apply to Algebra. Real numbers, linear equations, linear inequalities, factoring, fractions, graphing and some elements of geometry are stressed.

MAT 321/322 ALGEBRA 1

(Yearly 1 Credit) (9, 10)

Prerequisite: Pre-Algebra

Using variables or letters to represent numbers, Algebra is generalized arithmetic. Emphasis is placed on solving equations and inequalities, polynomials, factoring, linear equations in two variables, exponential functions and quadratic functions. Algebra provides the background for the future study of more complex mathematics. Completion of this course provides the student with the algebraic skills necessary to study Geometry or Honors Geometry.

MAT 521/522 GEOMETRY

(Yearly 1 Credit) (9, 10, 11)

Prerequisite: Algebra 1

Geometry is for anyone who intends to take further mathematics courses. In Geometry algebraic concepts such as solving equations and properties of square roots are used and reinforced. Definitions, postulates, theorems, corollaries, and properties will be used to complete geometric proofs. Additional topics include isometric transformations, parallel and perpendicular lines, dilation and similarity, right triangles and trigonometry, congruent triangles, quadrilaterals, circles, area and polygons, surface area and volume of solids, and constructions. Successful completion of this course enables a student to study Algebra 2 or Algebra w/ Trigonometry.

MAT 601/602 HONORS GEOMETRY**(Yearly 1 Credit) (9, 10) (Honors Level)****Prerequisite: "A" in Algebra 1 or Teacher Recommendation**

Honors Geometry is a rigorous course designed for anyone who desires a more challenging level of study at an accelerated pace. Enhance logical reasoning and spatial visualization skills will be emphasized in this course. Learning definitions, postulates, theorems, corollaries, and properties will be necessary to complete geometric proofs in Honors Geometry that will be more rigorous than in Geometry. In addition to all the topics of Geometry, other topics will be emphasized. In this course, emphasis is placed on solving geometric problems using advanced algebra. Successful completion of this course enables a student to study Algebra 2 w/ Trigonometry or Honors Algebra 2.

MAT 721/722 HONORS ALGEBRA 2**(Yearly 1 Credit) (9, 10, 11) (Honors Level)****Prerequisite: "C" or higher in Honors Geometry; or "A" in both Algebra 1 & Geometry**

Honors Algebra 2 is a rigorous course designed for anyone who desires a more challenging level of study at an accelerated pace. This course is for anyone who has experienced a high degree of success in mathematics and plans to take Honors Pre-Calculus, AP Statistics, Finite Mathematics, or Probability & Statistics. Emphasis in this honors level course is placed upon expanding the algebraic concepts taught in Algebra. Topics include radicals, rational functions, polynomial functions, logarithmic functions and conics. Right triangle and circular function trigonometry are expanded including proofs of trigonometric identities and graphs of trigonometric functions. Independence of thought, logic and scientific reasoning are stressed throughout the course. A graphing calculator is required.

MUSIC COURSE DESCRIPTIONS**MUS 211/212 CONCERT CHOIR****(Yearly 1 Credit) (9, 10, 11, 12)****Prerequisite: None**

Concert Choir is open to all students, regardless of their musical experience. Students will perform quality choral literature in a variety of styles. Students will be taught basic musicianship skills, such as proper vocal production, tone quality, sight-reading, and music theory. Students will be assessed on the quality of their rehearsal and performance preparedness and etiquette. Students will also be assessed on written and performed musical proficiency, including musical literacy knowledge and skills, musical production knowledge and application, and performance skills and artistry. Because this is a performance-based class, attendance is required at all rehearsals and performances, which typically take place outside of the school day.

MUS 231/232 CONCERT ORCHESTRA**(Yearly 1 Credit) (9, 10, 11, 12)****Prerequisite: Four years instrumental experience and/or proficiency determined through an audition.**

Concert Orchestra is a performance-based class that is offered to all students with a minimum of four years of string playing experience and/or proficiency as determined through an audition on violin, viola, cello, or string bass. This entry-level orchestra works on developing basic techniques, including accurate tuning, intonation, two-octave scales, bowings, shifting, vibrato, and tone quality. Students will perform a variety of quality orchestral literature. Students will be graded on performance skills, technical proficiency, written assignments, and class participation, along with rehearsal and concert attendance. Because this is a performance-based class, attendance is required at all rehearsals and performances, which typically take place outside of the school day.

MUS 141/142 CONCERT WINDS

(Yearly 1 Credit) (9, 10, 11, 12)

Prerequisite: Four years instrumental experience and / or proficiency determined through an audition.

Concert Winds is a performance-based class offered to students with four years instrumental experience and proficiency determined through an audition. Students will perform a variety of quality literature in a variety of styles. Students will be graded on musical literacy, production knowledge (instrumental technique), performance skills, and rehearsal/performance professionalism. Performances typically take place outside of the school day, and on occasion, rehearsals are also scheduled outside of the school day. Because this is a performance-based class, attendance is required at these events.

PHYSICAL EDUCATION COURSE DESCRIPTIONS

PHY 051/052 HEALTH

(Semester 1/2 Credit) (9, 10)

Health education will allow students to use higher level thinking in order to make informed health decisions. A variety of learning activities and student-centered discussions will be applied to the following topics: wellness, mental health, stress management, making healthy food choices, lifelong fitness, alcohol and substance abuse, human sexuality, and current health topics. A physical fitness component may be incorporated. This course is required for graduation.

PHY 101/111 DRIVERS EDUCATION/SWIM

PHY 102/112 (Semester 1/2 Credit) (9, 10)

All students will enroll in nine weeks of swimming when enrolled in Unit 5 Driver's Education

This course is designed to introduce students to a variety of swim techniques. Students will experience a variety of swim activities including, stroke development, fitness activities, diving, and water safety techniques. This is a nine-week course taken in conjunction with the classroom portion of driver's education.

PHY 131/132 FOUNDATIONS OF FITNESS

(Semester ½ Credit) (9, 10) One Time Enrollment Only

This course is an introduction to physical education that provides an overview of PE activities. This class will provide a foundation of fitness components and concepts that students will be able to build upon in future physical education classes. Students will develop physical and health-related fitness skills through participation in individual and team activities. **This course meets the prerequisite requirement for other PE electives.*

PHY 601/602 WATER AND LAND ACTIVITIES

(Semester 1/2 Credit) (9, 10, 11, 12)

Recommended: None

This course will include physical education activities both in the water and on land. This course will include a variety of water activities, as well as land/aerobic activities and games. This course is for students who complete Drivers Education off campus or for students that do not qualify to enroll in Drivers Education during the school year. Course content includes: American Red Cross Aquatic Swimming Levels, Water/Land Games and Activities, and Water/Land Fitness Activities.

PHY 631/632 ADVANCED AQUATICS

(Semester 1/2 Credit) (9, 10, 11, 12)

Recommended: None. This course is open to any student. Students can take this course without becoming a certified lifeguard.

This course is focused on training students to become an American Red Cross certified lifeguard. The course will develop student's swimming skills, as well as muscular and cardiovascular endurance. The primary purpose of this course is to provide entry-level lifeguard participants with knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide professional-level care for breathing and cardiac emergencies, injuries, and sudden illness until emergency medical services (EMS) personnel take over.

Each student will have the option of receiving American Red Cross certification in Lifeguarding & CPR/AED. First Aid is included with these certifications. A Certification card can be obtained at additional costs. The certification includes successful demonstrations of 3 pre-requisites tests, two final timed scenarios, and two written finals (CPR/FIRST AID & BASIC SKILLS). These standards (tests) are set by the American Red Cross. The Lifeguard Certification is active for 2 years from the date of completion of the class. Students can take Advanced Aquatics each semester.

SCIENCE COURSE DESCRIPTIONS

SCI 101/102 BIOLOGY I (Yearly 1 Credit) (9, 10)

This course is based upon fundamental life sciences concepts, which include cells and cellular energy, ecology, populations, Mendelian and molecular genetics, as well as the structure and function of animals. Real life connections to the curriculum are stressed, as are hands-on laboratory activities. Students can expect to develop both critical thinking and problem-solving skills throughout the course.

SCI 201/202 HONORS BIOLOGY (Yearly 1 Credit) (9, 10) (Honors Level)

Prerequisite: Mastery of 8th Grade Math and Science standards; or recommendation of Teachers/Counselors.

This course is based upon fundamental life sciences concepts, which include cells and cellular energy, ecology, populations, Mendelian and molecular genetics, as well as the structure and function of animals. Real life connections to the curriculum are stressed, as are hands-on laboratory activities. Students can expect to develop both critical thinking and problem-solving skills as they navigate through a more challenging level of study at an accelerated pace.

SOCIAL STUDIES COURSE DESCRIPTIONS

SOC 101/102 REGIONAL WORLD STUDIES (Yearly 1 Credit) (9)

In this course, 9th grade students' study about people, places and events in different parts of the world. Three major goals of the course are for students to (1) learn about the history of major world regions – Asia, Africa, Europe; (2) learn about the geography of these regions; and (3) gain a better understanding of world issues and problems.

STUDY HALL (No Credit)

STH 101 Study Hall 1st Semester (0) STH 102 Study Hall 2nd Semester (0)

TECHNOLOGY COURSE DESCRIPTIONS

TEC 081/082 INTRODUCTION TO TECHNOLOGY CONCEPTS (Semester ½ Credit, Yearly 1 Credit) (9, 10, 11, 12)

This is an exploratory class in Technology, Energy Utilization, 3D Computer Aided Design and several other technological concepts. Through “hands-on” projects, students will learn about the history of and the impacts of technology and possible career choices for the future. Students will develop teamwork, problem solving, and design skills. A variety of concepts will be explored through a majority of self-directed activities, utilizing computer based and hands-on learning in teams. Upon completion, students will have an understanding of what courses/careers are available to them and demonstrate team working strategies and display technological literacy. Students will also study basic drafting, energy utilization, digital media, personal computer hardware and software, and manufacturing principles. Student projects include: 3D designs, soldering project, engineering design project, Gamemaker video games, video game

cases, networking computers, and aerospace project. *This course is designated as a STEM Concentration Course.

TEC 251/252 INTRODUCTION TO METAL AND WOODS TECHNOLOGY
(Yearly 1 Credit) (9, 10, 11, 12)

Introduction to Metal and Woods Technology concentrates on the basic applications and processes that are used in working with wood, metal, and plastic. Students will study practical applications where industrial materials are used in today's society and study the processes of manipulating those materials. Concentration includes separating, forming, fabricating, and finishing through hands-on labs and activities. Students will produce various types of take-home projects made from industrial materials that will utilize woodworking, machining, and welding processes. This class is a great introduction to learn how to build, visualize and produce projects! Students will receive an opportunity to proficiency test for HCC MFTG 115 upon completion of a full year.

TEC 411/412 INTRODUCTION TO ENGINEERING DESIGN
***In Cooperation with Project Lead the Way**
(Yearly 1 Credit) (9, 10, 11, 12)

IED focuses on the design process and the applications that are used in the design world. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community. **This course is designated as a STEM Concentration Course.*

TEC 491/492 INTRODUCTION TO ANIMATION & RENDERING
(Semester ½ credit) (9, 10, 11, 12)

This course is designed to introduce students to basic methods and practices of creating 3D animation and renderings. Students will experiment with a wide variety of animation techniques. They will use math skills to control timing, physics to control lighting and optics, writing skills for storytelling, art talents to create characters, and computer skills for editing scene, shape and object manipulation. Using industry leading 3D animation software, the student will learn to create animations that closely resemble famous movies such as: Toy Story, Monsters, Inc., and Inside Out. Attention will also be given to rendering and animating of fires, hair, explosions, and characters. Ninety percent of this course will have students using their technical skills to render and animate using provided software. **This course is designated as a STEM Concentration Course.*