Logan County High School

2014-2015

Course Descriptions

www.lchs.logan.kyschools.us

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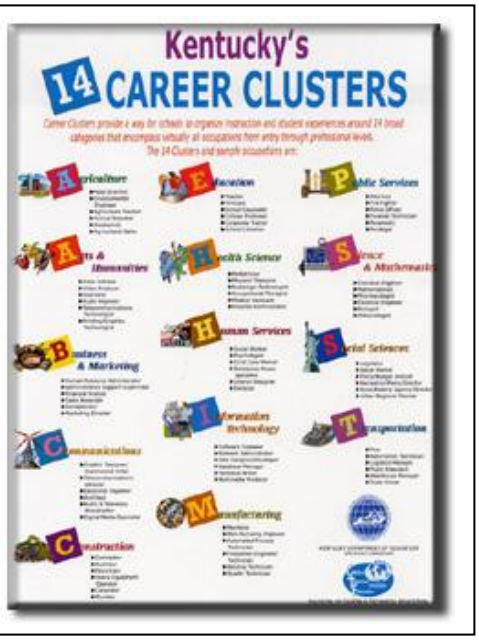
INTRODUCTION

LCHS MISSION STATEMENT

"Our learning community exists to challenge students today to be responsible leaders tomorrow."



Career Clusters

Agriculture
Arts & Humanities
Business & Marketing
Communications
Construction
Education
Health Sciences
Human Services
Information Technology
Manufacturing
Public Services
Science & Mathematics
Social Sciences
Transportation

PRE-COLLEGE CURICULUM (PCC)

English …… (English I, II, III & IV)	4 credits
Math …… (Algebra I, Geometry, Algebra II plus one math course= One course each year)	4 credits
Science …… (Biology, Chemistry & Earth Space/Physics)	3 credits
Social Studies …… (World Civilization, Integrated Soc. Studies, & US History)	3 credits
Humanities……	1 credit
Foreign Language ……	2 credits
Health ……	½ credit
Physical Education ……	½ credit
TOTAL REQUIRED COURSES	18 credits
ELECTIVES	8 credits
MINIMUM CREDITS FOR GRADUATION	**26 credits**

HONOR STUDENT CURRICULUM

English …… (English I, II, III & IV or AP English)	4 credits
Math …… (Algebra I, Geometry, Algebra II, Pre-Calculus, AP Math course)	4 credits
Science …… (Biology, Chemistry, Earth Space/Physics and upper level Science)	4 credits
Social Studies …… (World Civ., Integrated Soc. Studies, US History or AP US History)	3 credits
Humanities……	**1 credit**
Foreign Language ……	**2 credits**
Health ……	**½ credit**
Physical Education ……	**½ credit**
MINIMUM CREDITS FOR GRADUATION	**30 credits**

For the Class of 2014 and beyond:
An honor student is required to successfully complete a total of 6 AP or Dual Credit courses in 2 or more disciplines, beginning the Junior year. Two of the 6 courses must be AP. A student must have no discipline resulting in ALC/suspension during the Junior or Senior year. Student must have a 3.5 cumulative weighted GPA.

DEPARTMENT OF LANGUAGE ARTS

REQUIRED: English I, II, III, IV & Humanities

College Prep English I – Grade 9
This is an in-depth study of language arts. This study is an overview of literary genres and foundational grammar. Individual composition and research of independent projects will be emphasized. Credit-1

College Prep English II – Grade 10
This course continues to build language arts and literary skills, placing greater emphasis on reading and analyzing literary classics, analyzing persuasive writing, writing persuasively, and using technology for researching selected topics for oral presentation. This study includes refining foundational grammar. Credit-1

College Prep English III - Grade 11
This course is a detailed study of language arts and literature. Research skills will be practiced as will literary analysis, along with other formal papers. At least four novels will be studied. This study includes the study of grammar for academic writing and standardized testing. Credit-1

AP Language and Composition* – Grade 11
The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. Credit-1**(**AP Score of 3+ earns Eng100=*Category A**)**

College Prep English IV – Grade 12
Prerequisites – English I, English II, English III
The content includes appropriate experiences in oral and written communication. Language and mechanics concerns are used in the context of student writing.
This course further develops the skills for writing different genres from across the curriculum: creative, literary, personal, analytical, technical, and reflective. Drafting, revision and editing skills are emphasized. Credit-1

AP English IV Literature and Composition* – Grade 12
This is a course designed for the student who has mastered grammar, usage, and punctuation and is ready to explore the classics of world literature. The course is based heavily on reading and writing about literature. Credit-1 (AP Score of 3+ earns Eng100*Category A, 4+=100&200 * WKU Category A,B)

Intro to Speech and Drama – Grades 9 – 12
This is a language arts elective designed for ninth and tenth graders especially. Experience in drama and speaking will be gained through class activities, but competition or participation in after school events is not required. Several plays will be studied and the history of drama will be included. Credit – 1

Journalism I – Grades 11 - 12
Students will study the fundamentals of newspaper writing. Extensive writing will be involved. Mechanics of newspaper design will be studied. Students will get practical experience in writing, designing, editing, and publishing a school newspaper. Students will be publishing a yearbook, which entails selling advertisements, designing layouts, photography, and writing text. Students will sell yearbooks, and newspapers. Credit-1

Journalism II – Grades 11, 12
Prerequisite – Journalism I
This course is a continuation of Journalism I for students who wish another credit and more experience in this field. Credit - 1

Media - Grades 11 - 12
Prerequisite – English I and II
This course is a continuation of Journalism I and Journalism II for students who wish another credit and more experience in this field. Credit - 1

Arts and Humanities - Grade 12
This course is required for graduation. Topics covered will include history and how it relates to world culture, in the areas of music, art, drama, world religions and dance. This is helpful in developing analytical skills and gaining a deeper understanding and appreciation of arts through the ages. Credit-1

Speech Communication 161 – Grade 11 or 12
Dual credit course through WKU $210 or (SKY Tech $50 – Requirement: ACT E-20 & R-18)
This course is designed to increase your understanding of the principles and skills necessary for appropriate and effective communication within contemporary organizations. The course primarily focuses on developing your skills in preparing and delivering presentations to organizational audiences. Additional tuition/fee is required. Credit –1

English Composition (ENG 100 -- ***Category A) –** Grade 12
Prerequisites: ACT English score of 18 or higher NOTE: Students who earn a score of 29+ on the English portion of the ACT will bypass this course at Western.
The goals of the course are to introduce students to college-level writing and critical reading, to give students instruction and practice in writing and reading college-level essays, and to make students aware of how various audiences and rhetorical situations call for different choices in language, structure, format, and tone. Students receive instruction and practice that allows them to clearly articulate their audience, purpose, and rhetorical situation for writing assignments. LCHS Credit – 1

DEPARTMENT OF MATHEMATICS

REQUIRED: Algebra I, Geometry, Algebra II, & 1 Math elective

College Prep Algebra I – Grade 9
Students will study linear equations, linear inequalities, linear graphs, systems of two linear equations, exponents, polynomials, quadratic equations and functions, radical and rational expressions and equations. Credit - 1

College Prep Geometry – Grade 10
Prerequisite: Algebra I
Students will study constructions, circles, right triangles, right triangle trigonometry, similarity, surface area, lateral area, volume, area, perimeter, geometric probability, polygons, quadrilaterals, congruent triangles, angle pairs, logic, proof, and coordinate geometry. Credit - 1

College Prep Algebra II – Grade 11
Prerequisite: Algebra I, Geometry
Students will study linear equations and inequalities, various systems of equations and inequalities, quadratics, polynomials, radicals, logarithms, rational expressions and functions, sequences and series, conics, probability, and trigonometry. Credit – 1

Advanced Math – Grade 12
Prerequisite: Algebra I, Geometry, Algebra II
This class is designed to prepare students for introductory college or technical school math courses as well as the work force. This class covers material commonly found in second year high school algebra. Specific topics to be discusses include numbers, fractions, algebraic expression, and simplifying, factoring, laws of exponents, linear equations, simple graphs and polynomial algebra. Recommended for students with a Math ACT score of 18 or less. (Similar to MA 108R at SKYCTC) Credit – 1

Trigonometry
Prerequisites: Algebra I, Geometry, Algebra II
This class is designed for students going to college who will major in mathematics, engineering, or sciences. Students will study trigonometric functions, acute and right angles, radian measure and the unit circle, graphs of the circular functions and trigonometric identities, inverse circular functions and trig equations, applications of trig and vectors, complex numbers, polar equations and parametric equations. Credit - 1

Pre-Calculus – Grades 11, 12
Prerequisite: Algebra I, Geometry, Algebra II
This course is intended for those students who plan to take a calculus course in high school or college. This class is designed for highly motivated students. Topics include trigonometry, conic sections, and various functions, inverse functions and graphing. Credit – 1

AP Calculus AB *– Grade level 12
Prerequisite: Pre-Calculus
This course is designed for highly motivated students in mathematics. Explore the key concepts, methods, and applications of single-variable calculus including functions, graphs, and limits, derivatives, integrals, and the Fundamental Theorem of Calculus. Credit - 1 (AP Exam Score of 3+ earns WKU Math 119, 4+Math 136 *Category D) https://apstudent.collegeboard.org/apcourse/ap-calculus-ab

AP Statistics* – Grade level 11 or 12
Prerequisites: Algebra I, Geometry, Algebra II
This course is designed for students interested in science, medicine, education, psychology, sociology, and business. Learn about the major concepts and tools for collecting, analyzing, and drawing conclusion from data. Develop analytical and critical thinking skills as you learn to describe patterns and departures from patterns, plan and conduct surveys, studies, and experiments, use probability and simulation to explore random phenomena, estimate population parameters, test hypotheses, and make statistical inferences. Credit - 1 (AP Exam Score 3+ earns WKU Math 183 *Category D) https://apstudent.collegeboard.org/apcourse/ap-statistics

AP Computer Science—Grade 11-12
Prerequisites: Algebra I, Geometry, Algebra II
Learn to design and implement computer programs that solves problems in art, media, and engineering. Learn to apply programming tools and solve complex problems through hands on experiences and examples. (AP Exam score 3+ earns WKU Credit: Computer Science 180; AP Score 4+ earns UK CS 115)
Apstudent.collegeboard.org/apcourse/ap-computer-science-a

Math 116 – Grade 12 only - before & after school
Dual credit only through WKU.
Prerequisites: Completed or enrolled in a higher level beyond Alg.II, ACT Math score of 22 or higher, and math placement given by WKU must score a 14 or higher.
Graphing and problem solving are integrated throughout the study of polynomial, absolute value, rational, radical, exponential, and logarithmic functions. (Graphing calculator required.) Course Fee $210. Credit – 1

DEPARTMENT OF SCIENCE

Required–Biology I, Chemistry and Earth & Space Science

College Prep Biology I – Grade 9
This course offers exploratory experiences and activities in the fundamental concepts of life. Included in this course are the concepts of cells, diversity of life, and genetics. Credit – 1

College Prep Chemistry – Grade 10
This course offers students general laboratory experiences and activities in the concepts of chemistry through the study of compositions of substances and their effects upon one another. Scientific Calculator Recommended. Credit - 1

Earth and Space / Physics – Grade 11
Earth and Space Science is a semester long course which will focus on the Earth, geological change, environmental issues, and the interaction of the atmosphere, hydrosphere, and biosphere. Earth and Space Science will provide students with an understanding of how the parts of a system interact. The concept of matter cycling and energy flowing is used to help understand how systems on planet Earth are interrelated. Credit – ½ *Physics* is a semester long course which will focus on the conceptual study of matter and energy and the mathematics required to describe physical relationships. The topics covered will include mechanics, wave properties and applications and electricity with statics and circuits. Credit ½

AP Physics B* – Grade 11-12
This course is a systematic development of the main principles of physics, emphasizing problem solving and helping students develop a deep understanding of physics concepts. This course often provides a foundation in physics for students in the life sciences, pre-medicine, and some applied sciences, as well as other fields not directly related to science. AP Physics B is intended to be equivalent to such courses. Credit - 1

AP Environmental Science* – Grades 9-12
This course provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Credit – 1

AP Chemistry* – Grades 11,12
This course will meet the objectives of a good college general chemistry course. Students will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. This course should contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. Credit -1.

Anatomy and Physiology – Grade 11, 12
This course deals with the study of the structure and function of the living body. It will prepare students for future study toward a health career. This course does count toward upper level science elective. Credit -1

Forensic Science – Grades 11,12
This course is designed to challenge students with topics such as fingerprinting, DNA analysis, blood typing and spattering, trajectories (for ballistics as well as blood spattering) comparative anatomy, and chemical analysis of drugs, poisons, and trace evidence, and the dynamics of Physics.

Students will learn about the careers involved with Forensic Science and will play mock roles as experts in the field to solve crimes. They will learn team work in solving the mock crimes and have a chance to change their roles as the year progresses. The students will all be given the tools to interpret data and techniques involved for both chemical and biological analysis of evidence.

AP Biology* – Grades 11, 12
AP Biology is a college biology course taught in high school. This course provides students with the conceptual framework, factual knowledge, and analytical skills of the science of biology. This course prepares students for the College Board AP Biology Exam. Completion and specific scores on this test determine college credit. Credit – 1
(AP Score of 3+ earns Biology 113, 4=120,121, 5=120, 121, 122, 123 = *Category D)

***Special Topics in Science* –** Grades 10-12
This course offers a fun, hands-on approach to general science education. Course units will involve all branches of science (Earth Science, Biology, Chemistry, Physics, & Space) but will be focused on Experimental Design, Data Interpretation, and Statistical Analysis. Students will use scientific tools to investigate complex ideas and solve real-world problems in science. * Special Topics cannot be used as a fourth science class towards graduating with honors.*

DEPARTMENT OF SOCIAL STUDIES

REQUIRED: World Civilization, Integrated Social Studies, & U.S. History

College Prep World Civilization – Grade 9
This course will embrace a global view of the history of mankind focusing mainly on the world since 1500. This course will draw on concepts from all the social studies and humanities. Students will recognize continuity and change in historical events in order to make decisions for a better future. Credit – 1

College Prep US History – Grade 10
The United States history course is a survey of our country's history with the focus on events since the American Revolution. A key component of the course is the examination of the impact history has had on the modern world. In this context, the events of the past will be studied by students as they discover the connections between history and current circumstances. Instruction no longer centers on the coverage of dates, name, and other facts; instead emphasis is placed on political, diplomatic, economic, social, and cultural developments illustrating the correlation of the past to the present. This course encourages students to make connections between events and issues that run through many eras in history. Credit – 1

College Prep Integrated Social Studies – Grade 11
This course will consist of 12 weeks of Geography, 12 weeks of economics and 12 weeks of Civics. The themes of geography will be investigated as well as the physical, regional and cultural geography of the Western Hemisphere and Europe. The economics portion of the course will examine investing, supply and demand, economics scarcity and economic systems. The Civics portion will focus on the study of the Constitution and US Federalism. Credit – 1

AP U. S. Government & Politics*-Grades 11, 12
This course provides an analytical perspective on government and politics in the United States. It involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. All students taking this class are expected to take the AP Exam in the spring. Credit – 1

Sociology – Grades 11, 12
Sociology is the systematic study of human relationships. It involves the use of sociological inquiry of contemporary social issues and events so that it becomes meaningful to the students. It focuses on the social institutions of family, government, religion, education, and the economy and how each affects group behavior. It allows students to apply concepts and methods to the analysis of real world situations. Credit – ½

Psychology – Grades 11, 12
The course is the scientific study of behaviors and mental processes. Psychology involves trying to understand human behavior and the mental makeup of each person. This course will focus on basic psychological functions by studying contemporary psychological issues and events so that it becomes meaningful to the students. Some of the areas of study will be the Brain, Behaviors, Sensation, Motivation, Perception, The Unconscious Mind, Conditioning, Memory, Intelligence, Disorders and Treatment. This course will allow students to apply concepts and methods to the analysis of real world situations. Credit – ½.

Western Civilization 119 – (HIST 119 -- *Category C) Grade 12
Dual credit only through WKU.
This survey course investigates the historical period of antiquity through the Renaissance. WKU's curriculum will be followed in this course. Note: Additional tuition will be required to gain college credit from WKU. The current cost for dual credit is $210. Preference is given to honors students and highest GPA's. Credit - 1

WESTERN CIVILIZATION SINCE 1648. (HIST 120 *Category C) Grade 12
Dual credit only through WKU.
A survey of the political, social, cultural, and economic phases of western civilization since 1648. Additional tuition will be required to gain college credit from WKU. The current cost for dual credit is $210. Preference is given to honors students and highest GPA's. Credit – 1

History 240/241 (HIS240/241)-– Grades 11,12
Students are able to obtain college credit by participating in dual credit through WKU. The course will cover the political, economic, social and intellectual-cultural developments in America from 1450 to the present. Outside reading, written essay and standardized tests are required. College level difficulty. Note: Reduced tuition is available for the obtaining of the college credit hours. The current cost for dual credit is $210 per semester. Fees are subject to change per WKU. Credit – 240-1, 241-1 *History elective at WKU.

DEPARTMENT OF HEALTH & PHYSICAL EDUCATION

Required: Health Education & PE I

The *Logan County Health and Physical Education courses address the knowledge necessary for students to develop and maintain behaviors that enhance physical, social, mental and emotional well-being throughout one's lifetime.*

Health Education - Grades 9, 10

Basic to health education is a foundation of knowledge, attitudes, skills and behaviors impacting healthy lifestyles. Healthy family relationships are critical to maintaining the family unit, which historically has been considered the fabric of society. While parents are primary source from which children learn skills to act responsibly in relationships, community & school play supportive roles. Health literacy includes an understanding of how the body functions as well as behaviors and decisions that will foster life-long health. It is assuming responsibility for personal health throughout the life cycle & fostering behaviors and practices that will enhance family health. This course is required for graduation. Credit – ½

Physical Education I - Grades 9, 10

Addresses both health-related and skill-related components that promote enhanced health behaviors and increase responsible decision-making. Physical Education uses physical activity as a means to help students acquire skills, fitness, knowledge and attitudes that contribute to their optimal development and well-being. Rigorous physical activity and content. This course is required for graduation. Credit ½

Physical Education II – Grades 10 – 12

Prerequisite: PE I

This course will consist of the same skills acquired in PE I. The activities will be designed to be more rigorous and advanced than PE I. As an **elective course**, the student must be aware that this course offers **strenuous physical exercise**, as well as individual and team sports performed both indoors and outdoors. Credit -1

Physical Education III – Grades 10 – 12

Prerequisite: PE II

This course will consist of the same skills acquired in PE II. The activities will be designed to be more rigorous and advanced than PE II. As an elective course, the student must be aware that this course offers strenuous physical exercise, as well as individual and team sports performed both indoors and outdoors. Credit - 1.

Strength & Conditioning Training – Grades 10 – 12

This course will consist of various weight training lifts and conditioning exercises designed to develop the entire body. The "Bigger, Faster, Stronger" weight program will be used. The conditioning part of the class will consist of various agility, ply metric, and running exercises. Students will lift 3 times and condition 2 times per week. Only those who have a serious interest in fitness and are physically able to complete strenuous exercise should enroll. Credit – 1

Outdoor Sports: Grades 10-12
Prerequisite: PE I This course will consist of playing sports and games that are intended and designed to be played outside. Students should expect to go outside every day and participate in both individual and team sports. Students are expected to perform the essential tasks and skills of sports such as baseball, soccer, tennis, etc. Credit- ½ Paired with Indoor Sports

Indoor Sports: Grades 10-12
Prerequisite: PE I This course will consist of playing sports and games that are intended and designed to be played inside. Students should expect to stay inside every day and participate in both individual and team sports. Students are expected to perform the essential tasks and skills of sports such as volleyball, basketball, etc. Credit- ½ Paired with Outdoor Sports

Fit for Life: Grades 10-12
Prerequisite: PE I This course will focus on the five components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility, and body composition. Students will set personal wellness goals to achieve in all five areas throughout the course. Only students with a desire to participate in strenuous physical activity should enroll. Credit- ½ Paired with Aerobics/Dance

Aerobics/Dance: Grades 10-12
Prerequisite: PE I This course will focus on aerobic and dance activities. Course material will include Zumba, step aerobics, yoga, Pilates, line dancing, etc. Only students with a serious interest in these areas should enroll. Paired with Fit for Life
Credit- ½

Driver's Education – Grades 11, 12
Prerequisite: Must have a Permit or License. If you do not have your license or permit on the 1st day of class you will automatically be dropped from the class into a PE class.
Students will have both in-class and in-car instruction. The in-class instruction will consist of the discussion of various topics pertinent to safe driving. Students will spend the majority of the time in the car learning and practicing various skills that will help them become a better, safer driver. $5 course fee. Note: if you take Driver's Ed, you must also take Physical Fitness. Credit – ½

Physical Fitness – Grades 10 – 12
Prerequisite: PE I
This course is a companion to Driver's Education. This course will consist of the same skills acquired in PE II. The activities will be designed to be more rigorous and advanced than PE II. As an elective course, the student must be aware that this course offers strenuous physical exercise, as well as individual and team sports performed both indoors and outdoors. Credit - ½

DEPARTMENT OF FOREIGN LANGUAGE
2 Credits Required for College Admissions

Spanish I – Grades 9 – 12
This is an introductory course to the Spanish language. Students will become familiar with speaking in the present tense and identifying vocabulary from real-life experiences. Students will also study the cultures and histories of many of the Spanish-speaking countries. Credit – 1

Spanish II – Grades 10 – 12
Prerequisite: Spanish I
This course is an in-depth study of the Spanish language. Students will be able to communicate in the present, past and future tenses and identify vocabulary from real-life experiences. Students will also further their study of the cultures and histories of many of the Spanish-speaking countries. Credit – 1

Chinese I – Dual Credit through WKU Ichiban Flagship program (*Category A) Grades 11 – 12
The student will learn basic grammar and basic functional vocabulary of the Chinese language. Includes aspects of contemporary Chinese culture. The current cost for dual credit is $210. Credit – 1.

Chinese II – Dual Credit through WKU Ichiban Flagship program (*Category A) Grades 11–12
This course builds on the skills developed in Chinese I. The current cost for dual credit is $210. Credit – 1.

Chinese I & II fulfill WKU foreign language requirement.

ELECTIVE COURSES
JROTC

The JROTC courses are taught by Retired US Army Officers and Non-Commissioned Officers certified as instructors by the US Army Cadet Command and the State of Kentucky. (Leadership Education Training - LET) All students enrolled in JROTC will be required to wear the appropriate Cadet uniform one day each week, and adhere to appropriate standards of appearance and conduct daily. JROTC is designed to help students build increased personal responsibility, self discipline, a sense of teamwork, respect and greater self esteem. The mission of JROTC is "To Motivate Young People to be Better Citizens." Offered for students in grades 9-12.

LET I
This first year course includes instruction in American citizenship, leadership theory and application, physical fitness training, first aid & health, map reading, marksmanship safety training and qualification, techniques of communication, study and learning skills, American history and government, as well as the techniques of drill and ceremony. Each cadet is also provided the opportunity to practice leadership skills and techniques daily in

actual classroom situations. Optional field trips (when available), field map exercises and orienteering, and physical conditioning, will be conducted during the year. All students enrolled in JROTC are required to wear the appropriate Cadet uniform one day each week. Participation in the JROTC extra-curricular competition teams, Drill Team, Color Guard, Raiders, and Marksmanship team is optional, but highly encouraged. As students progress to LET levels 2, 3 & 4, in the upper grades, the level of responsibility and exposure to leadership increases. Credit - 1

LET II

The second year is a continuation of the first, building on the techniques and lessons learned. The course consists of Techniques of Communication (Reading Comprehension). Leadership, Physical Training, First Aid and Drug Education, Land Navigation, US Military History, American Citizenship, Career Opportunities, Role of the US Army, and Technology Awareness. The LET II students begin to control the cadet corps using those leadership techniques learned as LET I&II. (Prerequisite: Successful completion of LET I and approval of instructor) Credit – 1

LET III

The third year of JROTC instruction will involve the student as a leader, teacher and counselor within the cadet battalion. These leadership and academic opportunities will enable the cadet to succeed both in school and after graduation. The course will continue to expand on techniques learned during the first 2 years. A close look at career opportunities, technology awareness, and the role of the US Army in today's world will be completed. (Prerequisite: This course will be restricted to cadets who have completed LET I and II and proved they are ready to constructively participate in classroom and extracurricular activities. Instructor permission. Students will take this course fall and spring for a total of 2 Credits.

LET IV. *(Prerequisite: Successful completion of LET I, II, III and approval of the instructor. Approximately 10% of the students signing up for Let I will be able to complete Let IV)*

Emphasis for the fourth year will be on evaluating leadership development, performance in assigned command and staff positions. Emphasis for LET IV will be placed on the practical application of the cadet's leadership duties and responsibilities within the cadet battalion. Cadets will perform assigned command and staff duties and act as a class instructor for selected subjects. Students will take this course fall and spring for a total of 2 Credits.

MUSIC EDUCATION

Instrumental Music-Band (Program Overview) – Grades 9-12 – Prerequisite: Middle School Band or Individual Approval by the Director(s) When students are enrolled in Band they are expected to be enrolled both semesters. Exceptions to this expectation can be made on an individual basis pending the outcome of a meeting with the Director(s), Guidance Counselor, Parent, and Student. Not all classes offered every year. Check the registration sheet for current offerings.

Instrumental Music-Band I (Fall Semester) – Grades 9-12 – Prerequisite: Middle School Band

This course teaches music through a variety of performances. This ensemble performs as a Concert, Pep, and Marching Band. Students will perform as a Concert Band in 2 concerts during the fall semester (Fall Concert [October] & Winter Concert [December]). Students are expected to participate in the Marching Band (exceptions can be made on an individual bases pending the outcome of meeting with the Director(s), Parent, and Student). Marching

Band requires participation in a 2 week band camp at LCHS (typically 2 weeks before school starts), and a participation fee of $150.00. The Marching Band will perform at approximately 6 contests and 5 home football games. The Marching Band requires 2 rehearsals a week after school (Tuesdays and Thursdays 3:30pm-6:00pm). The Marching Band Season typically ends at the end of October (Marching Band is only about the first 10 weeks of school.) Students will also perform as a Pep Band for Home Basketball games (approx. 4 games before Winter Break). Students enrolled in this class will also have the opportunity to audition for All-District and All-State Bands. Credit – 1

Instrumental Music-Band II (Spring Semester) – Grades 9-12 – Prerequisite: Band I
This course is a continuation of Band I. During the Spring Semester the focus of the class is Concert Band, Pep Band, and Small Ensembles. Students will perform as a Concert Band in 2 concerts at LCHS during this semester (March & May). The Ensemble will perform at the KMEA Concert Band Festival. Students will have the opportunity to participate in Honor Band Festivals and the KMEA Solo & Ensemble Festival. The ensemble will also perform as a Pep Band at Home Basketball Games (approximately 6-8). During the Spring Semester the Band typically takes a trip. Credit – 1

Choral Music – Grades 9 – 12
The function of choral music is to teach music standards and core content through singing. The chorus will perform a variety of repertoire from different periods and styles. Participation in choir is through an audition. Credit 1.

Basic Guitar – Grades 9 – 12
This one-year course is designed for students with little or no guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar on a beginning level and will learn many of the different styles, skills and techniques required to become a successful guitarist. Credit 1

ART EDUCATION

Art I – Grades 9 – 12
This course provides instruction in the basic arts area with emphasis on design, drawing, painting, and ceramics. Visual arts careers, art history, appreciation, evaluation and aesthetics will be incorporated in the studio instruction. $10 fee required. Credit-1

Art II – Grades 10 – 12
Prerequisite: General Art I
This course provides in-depth instruction in a combination of at least three areas selected from design, drawing, painting, printmaking, ceramics and commercial art. In depth art history, studies of artists, movements, styles, and influences will be included. $10 fee required. Credit –1

Art III - Grades 11,12
Prerequisites: Art I & II. Previous Art scores will be considered.
This course is developed in areas selected from design, drawing, painting, printmaking and ceramics. In depth skill techniques for assorted media and a focused study of aesthetics is included. Student work will consist of both teacher lead and independent projects and will include art history $10 fee required. Credit-1

Art IV – Grade 12
Prerequisite: Art I, II, III. *Previous Art scores will be considered*.
This course is to further the development of design, drawing, painting, printmaking, sculpture, ceramics, art history, and aesthetics. Students will be asked to focus on mastering skills in studio of choice. In depth Aesthetic study will lead to the development of the student's personal philosophy of art. Credit -1.

Independent Art – Grade 12
Prerequisite: Art I, II, III, IV
This course is developed for the senior who has maintained a 90% average in art and is considering a career in the humanities. The student will work independently and prepare a portfolio suitable for college admission and/or scholarship applications. Aesthetic study will lead to the development and realization of the student's personal philosophy of art. Can possibly be taken as an AP course on request. $10 fee required. Credit – .5 or 1

ENGINEERING AND TECHNOLOGY EDUCATION

Career Clusters – Communication, Construction, Manufacturing

Foundations of Technology (grades 9-12) Formally Production Survey
This is an introductory course for technology. It allows students to explore technology by designing and constructing projects in the seven areas of technology. You will learn how to use all shop tools and equipment. Emphasis is placed on lab activities such as building CO2 cars, building and testing bridges, and a variety of other small projects.

Technological Design (Grades 9 – 12) Formally Woods/Production Solutions
This course studies the design process. Students will work individually or as teams to solve design related problems. Solving these problems will be done in the shop using tools, machines, and materials. Design projects might include designing and constructing furniture, clocks or various other objects.

Fundamentals of Engineering Design I (grades 9-12)
Formally Manufacturing Tech./Conceptual Engineering or Impacts of Contemporary Technology. This course is an introduction to drafting concepts, CAD and conventional, and Engineering Design Principles. Students will learn what Engineering is and engage in projects, design problems, and topics related to career fields such as manufacturing and construction. Design projects might include robotic kits, solar projects, or small electrical/electronic projects.

Engineering Design II (grades 10-12) Must have had Fundamentals of Engineering Design I. A project based course that is an extension of Fundamentals of Engineering Design I.

Engineering Design III (grade 12) must have had Fundamentals of Engineering I And Engineering Design II. Students in engineering teams apply technology to solve engineering problems and create innovative designs. Examples would be redesigning a shopping cart, building a hovercraft.

Fundamentals of Architectural and Civil Engineering (grades 9-12) Formally Construction Technology. This course is an introduction to residential and light commercial building construction and design. Students will design a structure, a house or cabin, and create a model of their design.

FAMILY AND CONSUMER SCIENCE

Parenting – Grades 10 – 12
This course is designed to aid students in developing parenting and care giving skills that can be applied in a variety of situations. Major topics include becoming an informed parent, caring for the newborn, being an effective parent/caregiver, caring for the sick and elderly and exploring career opportunities in care giving. Leadership development will be provided through the FCCLA. Credit- ½.

Child Development – Grades 10 – 12
This course addresses the practical problems related to understanding the types and stages of human growth and development recognizing effects of heredity and environment on human growth and development, meeting the needs of exceptional children, promoting optimum growth and development in the infancy, toddler, preschool, middle childhood, adolescent, and adulthood stages. Careers in child/human development are explored. Leadership development will be provided through the FCCLA. Credit -½.

Child Development Services I – Grade 10 – 12
Prerequisites: At least a "C" average in Parenting /Child Development
Note: Attendance is critical for the completion of this course
In this course, students gain skills that pertain to careers related to child development such as teaching, pediatrics/obstetrics, nursing, social services, guidance counselors/therapists, and child care providers/directors, as well as examining children's health and well being, value of play, teaching strategies and management, and curriculum development. The course provides orientation, training and industry certifications for entry level full or part-time positions in child care centers, nursery schools, kindergartens, and private homes so that the student is job-ready when successfully completing the course. The subject matter is reinforced with work experiences in a variety of early childhood settings. Having the option of being DUAL CREDIT with most state colleges and universities, this course is a key component in college and career readiness for those

students wanting to make a difference in the life of a child. $35 fee includes costs of CPR and First-Aid certification, if not already certified. Credits - 2

Child Development Services II – Grades 11, 12
Prerequisites: Child Development Services I ***Instructor signature required.***
Note: Attendance is critical for the completion of this course.
This course is designed for students who wish to train for supervisory level positions or to further their education at the post secondary level in the area of child care and development. Students gain in-depth work experiences in child care establishments. This class has the option of being Dual Credit with most state colleges and universities for those students pursuing a career in the Education field. Leadership development will be provided through the Family, Career and Community Leaders of America. Credits – 2.

Special Topics in Family and Consumer Science – Grade 12 only.
Prerequisite: Child Development Services I and II
This course is designed for those students who definitely plan to pursue a career in a child related field. The class will concentrate on the functional are as needed to earn a CDA credential. (This is the final level of Child Development Services). See instructor for approval before registering for this class. Credits – 2.

Nutritional Science – Grades 10 – 12
Nutritional and food science is an interdisciplinary elective course in which students gain an understanding of selected physical and life science concepts and apply them to everyday life. Much of the study and work in this course is directed toward providing students with an understanding of concepts of nutrition and relationships between nutrition and science. **$15 Fee required**. Credit - ½

Foods – Grades 10 – 12
This course is designed to assist students in making critical decisions about food which contributes to health and well-being. Laboratory instruction is included as an application process. Practical problems addressed relate to attitudes toward food, nutrition facts, special health concerns and diets, management of food resources, preparation skills, food safety, sanitation, careers in nutrition and food service. Leadership development will be provided through the Family, Career and Community Leaders of America. **$15 Fee required**. Credit- ½.

Culinary Skills I – Grades 11, 12
Prerequisite: Nutritional Science and Foods
This advanced course allows students to increase competencies in a variety of food preparation techniques. Emphasis is placed on food presentation, garnishing, menu planning and the skills necessary to prepare for a career in the culinary arts. The class is also appropriate for students interested in further developing their food preparation skills beyond the basic foods class. Lab Fee: $15.00 per semester. Credit 1 Leadership development will be provided by Family, Career and Community Leaders of America.

Culinary Skills II – Grades 11, 12
Prerequisite: Culinary I
In this course students resume progress in pursuing competencies in food production and services. Orientation to the food service industry and development of food preparation

skills are reinforced. Food service management functions are introduced. More in-depth information is provided and higher levels of skills are taught. Lab Fee: $15.00 per semester. Credit 1. Leadership development will be provided by Family, Career and Community Leaders of America.

Family and Consumer Science Coop – Grade 12
This course is designed for Senior Family and Consumer Science students who have had three credits of Family and Consumer Science, one of which is job related. This course is an opportunity for the students to work at local Family and Consumer Science related businesses and receive high school credit. Students have to complete a minimum of 570 hours during the course of the school year. Must have own transportation. Must have completed or be enrolled in 4th credit of Family & Consumer Science during the same semester as Co-op. Credit 1 or 1½ credits per semester. See instructor for job approval prior to beginning of school and for required forms.

AGRICULTURE EDUCATION (FFA)

FFA is in integral part of all Agriculture classes. All students will be required to take part in learning about the FFA and its activities. Fees are $15.00 per year.

Principles of Agricultural Science and Technology (FFA) – Grade 9
Purpose is to develop skills in career opportunities in agriculture, selecting and planning Occupational Experience Programs (projects), record keeping, leadership development, basic skills in agricultural mechanics, basic plant and animal science, soil science, crops and tractor operation. FFA participation is a key part of this course. **Fee $15.00**. Credit- 1

Agriscience (Formally Plant, Land and Animal Science) – Grade 10
The study of land and soil management and the environment as related to food and fiber production, plant parts, identification, reproduction, & growth, and soil science. Related activities outside the classroom such as land judging, demonstrations of equipment and methods are included. 1st-9 weeks. Livestock breed identification, selection, nutrition, production, health management & marketing, some work relating to agriculture structures, and demonstrations outside the classroom. 2nd-9 weeks. Credit – 1

Animal Technology – Grade 10 – 12
Students must have passed one other agriculture course before taking this class. (Horses and Cattle are the main focus of this course) This class is for students interested in animals. Identification, selection, nutrition, reproduction, genetics, health care and disease prevention, marketing and showing will all be covered to some extent. Students taking this course may be selected to take a skills standards test at no cost to them which could earn them college credit. Each student is expected to have a genuine interest in Animals and will fill out a proficiency form and give a speech as a part of the class. **Fee $15.00**. Credit - 1

Agriculture Construction Skills – Grades 11, 12

Provides students with practical experience in the construction of a variety of agricultural products. Shop Safety along with some welding, woodworking, and building construction skills will be included. Proficiency form and a speech will be required. Students should have passed one other agriculture class before taking this course. **Fee $15.00**. Spring Credit – 1

Small Power and Equipment – Grades 11, 12
Welding instruction, Maintenance, repair and operation of equipment: Small engines, basic electric wiring and care of electric motors. (FALL Semester only) Small engines team & welding team from this class. **Fee $ 15.00**. Credit – 1

Greenhouse Technology I – Grades 11, 12
This course includes greenhouse structures: regulating the greenhouse environment, plant propagation, tissue culture, plant growth, structure and environment of plants, bed and container growing, & production cycles. Additionally, variety selection, fertilization, pest & disease control, & growth regulators are stressed. Content will be enhanced with computer applications. Students must have completed one Agriculture class to take this class. **Fee $15.00** Credit – 1.

Greenhouse Technology II – Grades 11, 12
Prerequisites: Greenhouse Technology I (must have Greenhouse I before credit can be awarded in Greenhouse II)
Focus will be on Plant production in the greenhouse. Including variety selection, fertilization, pest and disease control, greenhouse selection and management . Leadership development through the FFA. Prerequisite: Greenhouse I. **Fee $15.00**. Credit - 1

Agriculture Co-op – Grade 12
Prerequisites: For Senior Agriculture students that have had 4 semesters of agriculture. Must also be enrolled in Ag Employment Skills. Additional criteria should be met. See the senior guidance counselor for details.
This course is an opportunity for students to work at local Agriculture related businesses, and receive high school credit. A minimum of 570 hours of work is required during the course of the school year. All students must have found a suitable job before the school year starts and must be able to provide own transportation to and from work. Usually Co-op is the last 2 blocks of the day each semester. Check with the instructor for approval for taking this program. Included in this course are Agriculture Employability Skills. This includes opportunities to develop skills in job searching, preparing resumes, job interviews and success on a job. **Fee $15.00**. Credits ½ fall and 1 spring.

Agriculture Employment skills: Grade 12 Course designed for senior ag students that have enrolled in the Ag Co-op program. Students need to enroll in the class and the Ag co-op course. Provides opportunities to develop skills in: job searching, preparing resumes, job interviews and success on a job. Fall / Credit 1.

BUSINESS and MULTIMEDIA EDUCATION

Computer & Technology Applications – Grades 9 – 12
Career Pathway: Business Multimedia & Marketing
This is a hands-on course in which students will use a computer with application software such as Microsoft Word, Excel, PowerPoint, and Publisher to prepare various documents. The course begins with basic essential computer skills and develops into more advanced skills such as creating flyers, cards, invitations, menus, brochures, presentations, spreadsheets, and web pages. Computer and Internet safety, the impact of computers on society and ethical issues is also presented. Leadership development will be provided through FBLA**.** Credit – 1

Advanced Computer Applications – Grades 10-12
Career Pathway: Business Multimedia
Prerequisite: Computer and Technology Applications
Dual Credit through Southcentral Kentucky Community and Technical College OnTrack program. The credit transfers to WKU and select other four year schools. Requires registration with SKYCTC and a $50 fee to receive college credit.
This course is designed to provide you with an advanced-level experience with practical applications through hands-on instruction. Course content will include understanding of various hardware, software, operating systems, care/operations, administrative applications, and employability skills. The software includes advanced business applications using Microsoft Word, Excel, PowerPoint, Access, and Publisher. Leadership development provided through FBLA**.** LCHS Credit – 1 SKYCTC – CIT105 Intro to Computing/WKU CIS 141.

Multimedia Publishing – Grades 10 – 12
Career Pathway: Business Multimedia
**Optional registration with SKYCTC and a $50 fee to receive college credit.*
This hands-on course applies publishing and presentation concepts through the development of creative projects. Students will use industry standard software such as Adobe Photoshop, Premiere Pro, & Flash to develop projects that include, but are not limited to, photo editing, video productions, web pages, Flash animations, brochures, programs, newsletters, flyers, graphs, and on-screen presentations. Students will create a print media kit, music video, band publicity kit, electronic portfolio and much more! Formatting, editing, page layout, and design concepts are taught. Leadership development will be provided through FBLA**.** Credit – 1 SKYCTC – OST 225

Personal Finance – Grades 11-12
**Dual Credit: Requires registration with WKU and a fee to receive college credit.*
This course is designed to serve the personal finance needs of students regardless of their major fields. Includes practical applications in personal and family financial planning, including credit, buying, borrowing, banking, insurance, investments, taxation, estate planning and home ownership. (WKU FIN 161 - General Ed Category C 1)

Web Page Design – Grades 10 – 12
Career Pathway: Business Multimedia
Prerequisites: Computer and Technology Applications
In this course students will analyze the structure of the worldwide web, apply basic principles of web documents and HTML, and develop multi-media web pages. Course content will include the understanding of hypertext, web structures, graphics and photo editing software, animation software, and website development software. Equipment such as scanners, digital video cameras, and sound recording devices will be utilized through hands-on instruction. Leadership development will be provided through FBLA**.**
Fee: $210 Credit – 1.

Advanced Multimedia- (**Video Production I)** - Grades 10 – 12
Career Pathway: Business Multimedia
Prerequisite: Multimedia or Computer Applications
This hands-on course allows students to complete projects such as broadcasts of Logan County Cougar News, the Video Yearbook, and Sr.Video. The course is designed around the learning goals of the students and is project-based. Students will complete advanced projects agreed upon with the instructor utilizing industry standard software- Adobe Photoshop, Flash, & Premiere Pro. Students will develop communication skills, problem-solving techniques, cooperative learning, and interpersonal skills. Leadership development provided through FBLA. Credit – 1

Promotional Applications & Media (**Video Production II)**– Grades 11 - 12
Career Pathway: Business Multimedia
Prerequisite: Advanced Multimedia (Video Production I)
This course allows students to work in the school and community to complete advanced video projects for viewing and distribution. Students will also play a leadership role in the production of the Logan County Cougar News, Video Yearbook, Sr. Video. Students will create movies incorporating advanced features of video editing software, broadcast news programs, and feature programs using industry standard software- Adobe Photoshop, Flash, & Premiere Pro. Students will develop communication skills, problem-solving techniques, cooperative learning, and interpersonal skills. Leadership development provided through FBLA. Credit 1-2

Business Co-op – Grade 12
Prerequisite: For senior business students that have had 3 business courses.
*Must also be enrolled in 4th Business Multimedia credit *requires instructor approval**
While completing a career major in Business Multimedia students will be able to co-op at a work site directly related to the career major. Students must complete a minimum of 570 hours of work during the course of the school year. All students must have found a suitable job before the school year starts and must be able to provide own transportation to and from work. Must have completed or be enrolled in 4th credit of Business during the same semester as Co-op. See instructor for job approval prior to beginning of school and for required forms. Credit: 1 or 2.

MARKETING

Principles of Marketing Grades 9-12
This course provides a basic foundation for further study in marketing. Students study economic functions at work in the marketplace; marketing functions including purchasing, pricing, and distribution functions. This course is based on the business and marketing core that includes communication skills, economics, financial analysis, and promotion. Both marketing and employment skills learned will improve and increase the student's college and career readiness. Leadership development will be provided through DECA activities and competitive events.

Computer & Technology Applications Grades 9-12
Students will use a computer and application software including word processing, presentation, database, spreadsheets, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented.

Sports Marketing Grades 10-12
Course Description: This course is designed to develop a thorough understanding of the marketing concepts and theories that apply to sports and events. This course is based on the business and marketing core that includes communication skills, distribution, marketing-information management, pricing, product/service management, promotion, selling, operations, strategic management, human resource management, and the economic impact and considerations involved in the sports and event marketing industries. Leadership development will be provided through DECA.

Travel and Tourism Marketing Grades 10-12
This course introduces the student to the travel and tourism industry. This course is based on the Business and Marketing Core that includes communication skills, economics, human resource management, promotion, marketing information management, and selling. Instruction includes
domestic and international travel, sales techniques, transportation methods (road, water, air, rail
way), food and beverage marketing, and destination marketing. Leadership development will be provided through DECA.

Advanced Marketing Grades 11-12
PREREQUISITE: Principles of Marketing This course is designed to enhance marketing skills developed in the marketing prerequisite courses and to learn advanced marketing skills in such areas as advertising, customer service, supervision, and employee/employer relations for a wide range of marketing careers. This course is based on the business and marketing core that includes communication skills, emotional intelligence, economics, marketing, operations, promotion, marketing information management and financial analysis. Leadership development will be provided through DECA activities and competitive events.

Dual Credit Courses (College Credit)

The Dual Credit Program is a partnership between Western Kentucky University's Division of Extended Learning and Outreach (DELO) and Logan County High School. This program offers qualified students the opportunity to earn college credit as part of their high school curriculum. The purpose of WKU's Dual Credit Program is to provide academic enrichment opportunities to high school students who are ready for the rigors and challenges of university coursework. There is a fee per course. Additional information can be found at www.wku.edu/dualcredit *or contact WKU at 745-2386 or 745-3418. Courses cost $210 per class (as of printing).*

Western Civilization to 1648 (HIST 119 -- *Category C) – Grade 12 only
This survey course investigates the historical period of antiquity through the Renaissance. WKU's curriculum will be followed in this course. Note: Additional tuition will be required to gain college credit from WKU. Class meets after school. Preference given to honor students and highest GPA's. Credit – 1

WESTERN CIVILIZATION SINCE 1648. (HIST 120 Category C) A survey of the political, social, cultural, and economic phases of western civilization since 1648. Note: Additional tuition will be required to gain college credit from WKU. Class meets after school. Preference given to honor students and highest GPA's. Credit – 1.

**College Algebra (MATH 116 -- ***Category D) – Grade 12
Prerequisites: Completed Pre-Calculus, ACT Math score of 22 or higher, and math placement given by WKU must score a 14 or higher.
Graphing and problem solving are integrated throughout the study of polynomial, absolute value, rational, radical, exponential, and logarithmic functions. (Graphing calculator required.) LCHS Credit -1.

Business Communication (COMM 161 – ***Category A) –** Grades 11, 12
This course is designed to increase a student's understanding of the principles and skills necessary for appropriate and effective communication within contemporary organizations. The course primarily focuses on developing a student's skills in preparing and delivering presentations to organizational audiences. LCHS Credit – 1

Psychology 100 (PSY 100 -- ***Category C) –** Grades 11, 12
Introduction to Psychology is the study of behavior covering theories, methods and findings of research in the major areas of psychology. These areas include learning, human development, motivation, social psychology and abnormal behavior.
LCHS Credit -1.

English Composition (ENG 100 -- ***Category A) –** Grade 12
Prerequisites: ACT English score of 18 or higher NOTE: Students who earn a score of 29+ on the English portion of the ACT receive credit for course at Western. LCHS Credit – 1
The goals of the course are to introduce students to college-level writing and critical reading, to give students instruction and practice in writing and reading college-level

essays, and to make students aware of how various audiences and rhetorical situations call for different choices in language, structure, format, and tone. Students receive instruction and practice that allows them to clearly articulate their audience, purpose, and rhetorical situation for writing assignments.

History 240/241 (HIS240/241)-– Grades 11,12
Students are able to obtain college credit by participating in dual credit through WKU. The course will cover the political, economic, social and intellectual-cultural developments in America from 1450 to the present. Outside reading, written essay and standardized tests are required. College level difficulty. Note: Reduced tuition is available for the obtaining of the college credit hours. The current cost for dual credit is $210 per semester. Fees are subject to change per WKU. Credit – 240-1, 241-1 *History elective at WKU.

Introduction to Teaching (EDU 250) – Grade12
This is an introductory course to a career in education. The student will acquire the basic knowledge of teacher ethics, career awareness, student diversity, and curriculum. Field experiences are required. EDU 250 is a prerequisite for further study in teacher education. This course provides an awareness of the role of the teacher in the classroom, in the school, and in the community and will guide the student in choosing an appropriate career path. In addition, this founds course will enable the student to answer the question: ***Is teaching the career for me?*** LCHS Credit – 1

Chinese I – (CHINESE 101 *Category A) Grades 11 – 12
Conversational Mandarin with basic grammar and basic functional vocabulary of the Chinese language. Includes aspects of contemporary Chinese culture. Credit – 1.

Chinese II – (CHINESE 102 *Category A) Grades 11 – 12
Continuation of development of basic grammar and functional language skills of Mandarin. Includes aspects of contemporary Chinese culture. Credit – 1.

Personal Finance (WKU FIN 161) – Grades 11-12
This course is designed to serve the personal finance needs of students regardless of their major fields. Includes practical applications in personal and family financial planning, including credit, buying, borrowing, banking, insurance, investments, taxation, estate planning and home ownership. (WKU FIN 161 - General Ed Category C 1)

DUAL CREDIT CLASSESE OFFERED THROUGH SKYTECH

Music Appreciation—MUS 100 (WKU)
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of an awareness and understanding of musical styles from the Middle Ages to the present. Designed for the non-music major with no prior knowledge of music and is not intended to fulfill a program course requirement for music majors.

Speech—
This course is designed to increase a student's understanding of the principles and skills necessary for appropriate and effective communication within contemporary organizations. The course primarily focuses on developing a student's skills in preparing and delivering presentations to organizational audiences. LCHS Credit – 1

Courses from SKY TECH cost $50 a semester. The courses transfer to WKU since they have a reciprocity agreement with SKY TECH. If you are planning on going to another college contact that college about the transferability of those classes.

ON-LINE DUAL CREDIT COURSES

WKU will offer online courses each semester. The cost is the same as the dual credit courses taken here at LCHS. The class list is different each semester. Contact your guidance counselor if you are interested in taking one of these classes.

*Note - All Dual Credit Courses are provided through Western Kentucky University. Category information (AP exam scores and Dual Credit) pertains only to Western Kentucky University's General Education Program Requirements.

Russellville Area Technology Center
Course Descriptions *2014-2015*

*Note – not all courses will be offered every year. Check the registration sheet for a listing of offerings for the upcoming school year.

ADMINISTRATION SUPPORT - Ms. Powers

Accounting
Course Description: Students are introduced to accounting terminology and general theoretical principals. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers.

Computer Applications/Keyboarding
Course Description: Students will use a computer and application software including word processing, presentation, database, spreadsheets, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented.

Advanced Computer Applications
Prerequisite: Computer Applications/Keyboarding
Course Description: This course is designed to provide students an advanced-level experience with practical applications through hands-on instruction. Course content will include understanding of various hardware, software, operating systems, care/operations, administrative applications, and employability skills. The software includes advanced business applications using word processing, presentation, spreadsheets, database management, desktop publishing, and electronic communication. Leadership development will be provided through FBLA. Upon completion of this course, a student will be ready to take the core level tests for IC3 Certification and/or the Administrative Support Skill

Business Communication
Course Description: Presents aspects of communications technology used in the global business environment including presentations software; a basic understanding of voice recognition software; planning and composition of written, oral, and electronic communications; grammar, punctuation, and spelling, and principles of proofreading, both manual and electronic.

Business Management
Course Description: This course emphasizes the skills needed for managing a business that involves the selection and supervision of employees including efficient use of time, personnel, facilities, and financial resources. Students will explore forms of business ownership; typical business organizational structure; product or service promotion in business; effective communications; human relations skills required in dealing with employees; and effective management strategies used in personnel, finance, production, marketing, and information processing. Leadership development will be provided through FBLA.

AUTOMOTIVE TECHNOLOGY – Mr. Todd Robinson

Automotive Maintenance and Light Repair Section A-B-C-D
Valid Course Codes: Classes: 470507/470509/470511/470513
Labs:70508/470510/470512/470514

Course Description: These courses introduce the student to the principles, theories, and concepts of Automotive Technology, and include instruction in the maintenance and light repair of Engines, Brake Systems, Electrical/Electronic Systems, Suspension and Steering Systems, Automatic and Manual Transmission/Transaxles, and Engine Performance Systems. In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task, including proper care and cleaning of customers vehicles. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and training materials from accepted industry publications and resources, and demonstrate the ability to write work orders. All Tasks for the Automotive Maintenance and Light Repair Sections A, B, C, and D are listed in the Automotive Maintenance and Light Repair Section A Task List.

Special Problems I, II, III, IV (Auto)
Valid Course Codes: 470577/470578/470479/470584

Course Description: Courses designed to enhance a student's understanding of shop situations and problems that arise when dealing with live work. It expands on the task lists that have already been taught to the student in previous Auto Courses. The instructor will teach students how to deal with real world problems that arise when repairing automobiles subjected to various types of customer road use.

Automotive Internship
Valid Course Codes: 470504/470505/470506

Course Description: Internship for CTE courses provide supervised work-site experience for high school students who are enrolled in a capstone course associated with their identified career pathway. Internship experiences consist of a combination of classroom instruction and field experiences. A student receiving pay for an intern experience is one who is participating in an experience that lasts a semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (semester or less)

COMPUTER AIDED DRAFTING – Mr. Chris Hoffman

Construction Drafting -- ADFT 230

Course Description
This is a continuation course to the elements and fundamentals of residential architecture. Electrical plans, plumbing plans, and roof design are an integral part of this course. Students will use standard drafting practices to create detailed drawings which illustrate construction methods and design.

Introduction to Computer -- Aided Drafting CAD 100
Course Description
This combined lecture and lab course introduces the student to the terminology, capabilities, and various applications of interactive computer graphics. The course involves hands on use with a graphic design workstation and the application of the fundamentals of computer assisted drafting.

Drafting Fundamentals -- CAD 102
Course Description:
This combined lecture and lab course introduces the development of drafting and the drafting processes. Students will use and maintain standard drafting equipment and supplies. Determining line weights, measuring line lengths using various scales, measuring angles and drawing lines, circles, arcs, and irregular curves are all major components of this course. Geometric construction processes will be studied throughout the semester. This course will utilize basic math skills, including fractions, decimals, and geometric relationships.

Engineering Graphics -- CAD 112
Course Description:
This combined lecture and lab course continues the development of drafting and the drafting processes. Students will use and maintain standard drafting equipment and supplies. Students will create pictorial drawings as well as sectional views. This course will utilize basic math skills, including fractions, decimals, and geometric relationships.

Introduction to Architecture -- CAD 120
Course Description:
This is an introductory course to the elements and fundamentals of residential architecture. Site selection, use of materials in design, spatial relationships, and aesthetics are covered. Students will use standard drafting practices to create detailed drawings which illustrate construction methods and design.

Intermediate Computer Aided Drafting -- CAD 200
Course Description:
This combined lecture and lab course continues use of the terminology, capabilities, and various applications of interactive computer graphics. The course involves hands on use with a graphic design workstation and the application of the fundamentals of computer assisted drafting. Students build on learned activities from CAD I and continue to learn new aspects of computer-aided drafting.

Parametric Modeling -- CAD 201
Course Description:
This combined lecture and lab course continues the development of three-dimensional design. The generation of 3D prototype models is an integral part of this course. The use of various 3D design software makes this course versatile for the workplace.

Architectural Design -- CAD 220
Course Description:
Combines the elements and fundamentals of architectural design with the theory and application of presentation techniques. Deals with site selection, use of materials in design, spatial relationships, and aesthetics. Traditional and contemporary design, designers, processes, and historical milestones are explored. Board and computer techniques are used in illustrating interiors of student designs.

WELDING – Instructor Lee Wells

Basic Welding B --Valid Course Code 480504
Course Description
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Prerequisites: None

Cutting Processes --Valid Course Code 480501
Course Description
A working knowledge of various cutting processes used by the welding industry. Will include, but is not limited to, safety, theory of operation, setup and operating techniques, troubleshooting and making minor equipment repairs, terms and definitions, identification, evaluation, and repair and prevention of discontinuities of cut surfaces. Includes oxy-fuel cutting, plasma arc cutting, exothermic cutting, air carbon arc cutting, shielded metal arc cutting, and mechanical cutting process. Co-requisites: Cutting Processes Lab-480502

Cutting Processes Lab --Valid Course Code 480502
Course Description
Designed to provide the student with practical experience to become proficient in the use of various metal cutting processes. Safety, setup, and operating techniques are employed. Students will troubleshoot and make minor repairs to equipment. Students will also learn to identify, repair, and prevent reoccurrence of cut surface discontinuities. Processes shall include, but are not limited to OFC, PAC, AAC, and mechanical methods. Various materials will be used where appropriate. Co-requisites: Cutting Processes-480501

Gas Tungsten Arc Welding --Valid Course Code 480525
Course Description
This class will focus on the identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Co-requisites: Gas Tungsten Arc welding Fillet lab-480529 or Consent of Instructor

Gas Tungsten Arc Welding Lab -- Valid Course Code 480529
Course Description
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs, on plates with both ferrous and non-ferrous metals. Plasma Arc cutting is included. Co-requisite: Gas Tungsten Arc Welding -480525

Gas Metal Arc Welding --Valid Course Code 480522
Course Description
Identification, inspection, and maintenance of GMAW machines; identification, selection and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Prerequisites: None

Gas Metal Arc Welding Lab --Valid Course Code 480532
Course Description
Teaches the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Co-requisite: Gas metal Arc welding-480522

Gas Metal Arc Welding Groove Lab --Valid Course Code 480533
Course Description
Teaches the method of operation and application of the Gas Metal Arc Welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short

circuiting and spray transfer where appropriate. Prerequisites: Gas Metal Arc Welding-480522 or Consent of Instructor

Oxy-Fuel Systems --Valid Course Code 480523
Course Description
A working knowledge of oxy-fuel identification, setup, inspection, and maintenance; consumable identification, selection and care; principles of operation; effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing principles and practice, and metallurgy. Shop safety and equipment use are also covered. Co-requisites: Oxy-Fuel Systems Lab-480526

Oxy-Fuel Systems Lab --Valid Course Code 480526
Course Description
Instruction on the manipulative skills necessary to weld and cut plate and pipe in all positions, as well as brazing, braze welding and gouging. Co-requisite: Oxy-Fuel Systems-480523

Shielded Metal Arc Welding (SMAW) --Valid Course Code 480521
Course Description
Teaches students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Co-requisites: SMAW Fillet lab-480527 or Consent of Instructor

SMAW Open Groove Lab --Valid Course Code 480535
Course Description
Designed to build upon SMAW Plate Lab I and II. Offers the student the opportunity to advance their skills in the practical aspects of vee-butt plate welding using SMAW. Prerequisites: Shielded Metal Arc Welding (SMAW)-480521 SMAW Fillet lab-480527 or Consent of instructor

Cooperative Education I --Valid Course Code 480541
Course Description
Cooperative Education provides supervised on-the-job work experience related to the students' educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Consent of Instructor

Cooperative Education II --Valid Course Code 480542
Course Description
Cooperative Education provides supervised on-the-job work experience related to the students' educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Consent of Instructor

ACCOUNTING AND FINANCE – Ms. Hazell

Accounting and Finance Foundations
Course Description: This course will provide an introduction to both areas of accounting and finance. Topics will 8ninclude banking, credit, financial literacy, career exploration, spreadsheet usage, and technical writing. The accounting principles taught in this course are based on a double-entry system and include preparing bank reconciliations, payroll taxes, and financial statements. Detailed career exploration in the various fields of accounting will be available. Technical writing will be provided through IPAC business plan curriculum and exploration of case studies. Leadership development will be provided through FBLA.

Advanced Finance and Credit
Course Description: This course is designed to develop an understanding of financial markets, investing institutions, and the finance and credit industry in our economic system. It includes an introduction to the allocation of financial resources, the effects of the finance and credit institutions on the business community, and the impact that financial decisions have on the

consumer market. Areas of study include stock markets, bonds, futures, commodities, interest rates and the economy, interpretation of financial information, insurance and risk management, and job opportunities in the finance and credit area. This course should include real and/or simulated occupational experiences and projects. Leadership development will be provided through FBLA and/or DECA. *(This course is cross referenced with Marketing Education.)* SUGGESTED PREREQUISITE: Business Principles and Applications OR Business Economics OR Financial Services I.

Computer & Technology Applications
Course Description: Students will use a computer and application software including word processing, presentation, database, spreadsheets, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented.

Financial Accounting
Course Description: The accounting principles taught in this course include an in-depth study of accounting principles, procedures, and techniques used in keeping financial records for sole proprietorships, partnerships, and corporations. There is an emphasis on automated accounting. Topics include a more analytical approach to accounting. Leadership development will be provided through FBLA. SUGGESTED PREREQUISITE: Accounting and Finance Foundations

Financial Literacy
Course Description: This course is designed to provide students with the knowledge and skills to manage one's financial resources effectively for lifetime financial security. Topics include economics, money in the economy, budgeting, credit, consumer rights, investments and retirement planning. Leadership development will be provided through FBLA/DECA.

Mathematics for Business and Industry
Course Description: This course enables the student to explore mathematical content for personal, business, and industrial use. Math concepts and skills are applied through study and problem-solving activities in real-world situations in the following areas: banking, measurement, borrowing and investing, consumer purchases, and financial management. Leadership development will be provided through FBLA or DECA.

Business Economics
Course Description: This course is designed to be a comprehensive study of economics which meets the economics requirement for graduation. It provides an in-depth study of how people produce, distribute, and consume goods and services. Economic terminology, theory, and a comparison of economic systems and policies are integral to the course. Simulations and/or actual work situations may be used to provide practical experience with various economic conditions. Leadership development will be provided through FBLA/DECA.

Business Principles and Applications
Course Description: This course establishes basic foundations for further study in business and marketing courses and provides essential information for making financial and economic decisions. Students learn about the fundamentals of the American free enterprise system and world economies; application of sound money management for personal and family finances; credit management; consumer rights and responsibilities; forms of business ownership; risk and insurance; and the importance of international trade. Leadership development will be provided through FBLA and/or DECA. *(This course is cross referenced with Marketing Education.)*

INOFRMATION TECHNOLOGY – Melissa Jones

Computer Literacy
Introduces students to the main components of computer literacy including Computer Fundamentals, Key Applications and Living Online. Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the

social web, green computing, security and computer ethics. Presents basic use of application, programming, systems and utility software. Basic keyboarding skills are strongly recommended.

Computer Hardware & Software Maintenance
Focuses on the design of computing systems, including instruction in the principles of computer hardware and software components, algorithms data basis, telecommunications, etc. Includes the knowledge to identify and explain PC components, setup a basic PC workstation, conduct basic software installation, identify compatibility issues and recognize/prevent basic security risks and also gives knowledge in the areas of Green IT and preventative maintenance of computers.

Security Fundamentals
Introduces basic computer and network security concepts and methodologies. Covers principles of: security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control and identity management; and cryptography.

Visual Basic I
Introduces students to fundamental programming concepts using the Visual Basic programming language. Topics include data types, control structures, simple data structures, error-handling, modular programming, event-driven programming, graphical user interfaces, and file processing.

Introduction to Networking Concepts
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure.

Help Desk Operations I
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations and software, needs analysis, facilities management, and other topics related to end user support.

ELECTRICAL TECHNOLOGY CONSTRUCTION – Mr. Bond

Electrical Motor Controls I 470348
Course Description: This course addresses the diversity of electric motor control devices and applications used in industry today with safety and electrical lockouts included.
Prerequisite: Industrial Maintenance Electrical Principles-470322
Industrial Maintenance Electrical Lab -470323

Electrical Motor Controls I (Lab) 470347
Course Description: This course addresses the diversity of electric motor control devices and applications used in industry today with safety and electrical lockouts included.
Prerequisite: Industrial Maintenance Electrical Principles-470322
Industrial Maintenance Electrical Lab -470323
Co-requisite: **Electrical Motor Controls - 470348**

PLC's 470330
Course Description: This course includes the theory of Programmable Logic Controllers to include installation, programming, interfacing, and troubleshooting PLC's
Prerequisite: Motor Control Concepts-470333, Motor Control Concepts Lab-470334

PLC's Lab 470331
Course Description: This course includes the theory of Programmable Logic Controllers to include installation, programming, interfacing, and troubleshooting PLC's.
Prerequisite: Motor Control Concepts-470333, Motor Control Concepts Lab-470334
Co-requisite: **PLC's -470330**

Electrical Principles 470322
Course Description: This course introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. The course is designe to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits.

Electrical Principles (Lab) 470323
Course Description: This course introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. The course is designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits.

Basic Electricity/lab 460329/460330
Course Description: This course introduces the basic physics of electricity. Students apply Ohm's law; measure resistance, voltage, ohms, watts, and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and coil.

PRE-NURSING – Ms. Joiner

Cooperative Learning I (Allied Health)
Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program in an Allied Health career pathway receive compensation for their work.

Emergency Procedures
This course will focus on potential emergency situations. It is designed to promote an understanding of standard precautions necessary for personal and professional health maintenance and infection control. Upon successful completion of the course, the student will demonstrate the necessary skills in First Aid and Cardiopulmonary Resuscitation (CPR) and will be given the opportunity to take the completion examination as outlined by the sponsoring agency.

Health and Wellness for CTE Credit
Promotion of a healthy lifestyle through proper nutrition, physical activity, and lifestyle choices. Emphasis on holistic health care and the health care industry.

Health Science Anatomy & Physiology/Body Structures and Functions
This course is designed to provide knowledge of the structure and function of the human body with an emphasis on normalcy. The interactions of all body systems in maintaining homeostasis will promote an understanding of the basic human needs necessary for health maintenance Academic knowledge from life science core content as it relates to the human body will be included. Laboratory activities should be a part of the course when appropriate

Medicaid Nurse Aide
An instructional program that prepares individuals to perform routine nursing-related services to patients in hospitals or long-term care facilities, under the training and supervision of an approved registered nurse. State Registry is available upon successful completion of state written and performance examination. Prior to offering this course, the instructor and health science program must be approved for meeting state requirements set by

the Cabinet for Health and Family Services.

Medical Math
This course is designed to provide a review of basic mathematic skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations.

Medical Terminology I
A course designed to develop a working knowledge of language in all health science major areas. Students acquire word-building skills by learning prefixes, suffixes, roots and abbreviations. Students will learn correct pronunciation, spelling and application rules. By relating terms to body systems, students identify proper use of words in a medical environment. Knowledge of medical terminology enhances the student's ability to successfully secure employment or pursue advanced education in health care.

COMPUTERIZED MANUFACTURING AND MACHINING TECHNOLOGY – Mitch Cundiff

Applied Machining – I
Valid Course Code: 470911
Course Description: Consists of intermediate level skills using machining machines and surface grinders. It will include the selection of grinding wheels. Applications in milling, lathe, bench work, and utilizing gauge blocks and the sine bar are covered in this course. Surface grinding and abrasives are introduced and properties of metals are discussed.
Prerequisite: Fundamentals of Machine Tool A-470913 Fundamentals of Machine Tool B-470914

Applied Machining – II
Valid Course Code: 470912
Course Description: Carries the student to higher levels in the operation of machine tools. Applications in milling, lathe, bench work, and utilizing gauge blocks and the sine bar are covered in this course. Surface grinding and abrasives are introduced, and properties of metals are discussed. Prerequisite: Applied Machining I - 470911 or Permission of Instructor

Basic Blueprint Reading for Machinist
Valid Course Code: 470920
Course Description: Basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings are presented. Safety will be emphasized as an integral part of the course.

CAD/CAM/CNC
Valid Course Code: 470925
Course Description: This course introduces the student to CAD/CAM/CNC systems which includes CAM software. The student will utilize process planning, manual programming and CAD/CAM for CNC equipment. This student will load a CNC program and set tool and work offsets, and machine part.

Cooperative Education I
Valid Course Code: 470929
Course Description: Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Consent of Instructor

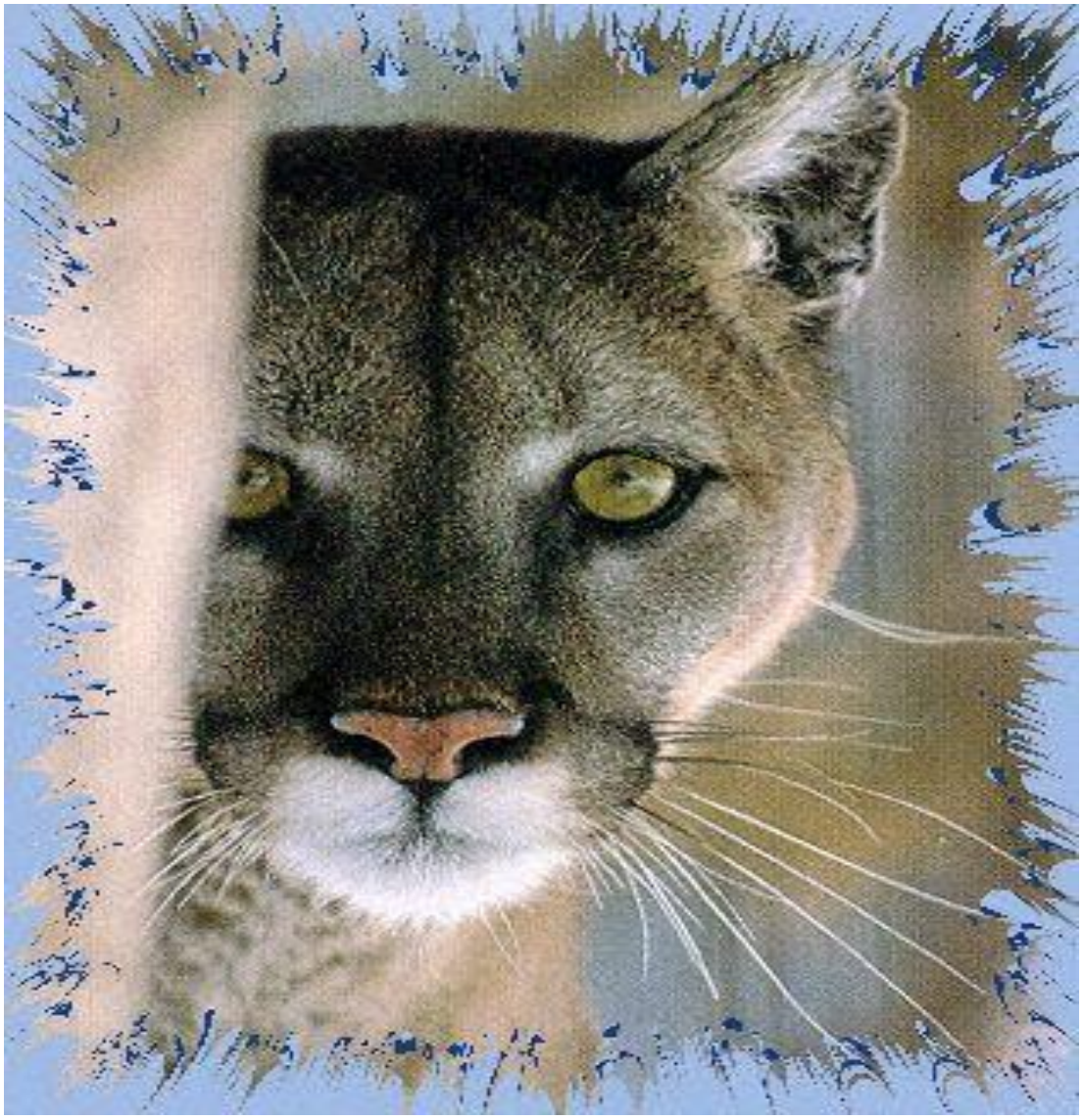
Fundamentals of Machine Tools – A
Valid Course Code: 470913

Course Description: This course provides the basic principles needed for a solid foundation in machine tool technology. Areas and machines covered include shop safety, bench work, drill press, power saw, measurement, mills, and lathes. Prerequisites: None

Fundamentals of Machine Tools – B
Valid Course Code: 470914
Course Description: This course provides intermediate skill development in machine tool technology. The course builds on basic skills developed in MTT 110, especially in the calculation of safe cutting speed and feed rates for the drill press, power saw, mills, and lathes. Shop safety, bench work, and precision measurement are also emphasized. Prerequisites: Basic Blueprint Reading for Machinist -470920

Manual Programming
Valid Course Code: 470915
Course Description: This course introduces the student to CNC format and the Cartesian Coordinate System. It also introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. The student will utilize process planning and manual programming for CNC equipment. The student will load a CNC program and set tool and work offsets. Prerequisites: None

Logan County High School



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