2014-2015 Instructional Course Directory
Dear Students, Parents, and Guardians,

The power of good Career and Technical Education (CTE) programs has influenced our community, great Commonwealth, and Nation for many years. Through good CTE programs and Career and Technical Student Organizations students have discovered many rewarding careers and many future business and community leaders have been developed. Our commitment to our students while attending the Jessamine Career and Technology Center (JCTC) is an education that is challenging and relevant, while meeting the growing demands of the real world here in Jessamine County, our state, country, and world.

Please feel free to contact any of our JCTC staff, including the College and Career Readiness (CCR) Center staff to assist you in selecting courses for your high school schedule. Please feel free to contact me with any questions concerning JCTC or Career Technical Education in general.

You can reach me by email at dexter.knight@jessamine.kyschools.us or at 881-TECH (8324).

Sincerely,
Dexter Knight, Principal
Jessamine Career and Technology Center

The Jessamine Career and Technology Center is a 50,000 square foot building located directly behind the Jessamine County Board of Education. JCTC offers challenging, high level technology infused Career Majors/Pathways in Career Clusters in: Agriculture, Business and Marketing, Health and Human Services, Information Technology, Biomedical Sciences, Public Safety and Pre-Engineering. There is also opportunity for students to earn college credit in many dual credit classes with BCTC, University of Kentucky & Morehead State University.

Kentucky’s 16 Career Clusters

Kentucky features 16 Career Clusters and for Jessamine County students, pathways are available in all 16 with pathways in various physical locations. Below is a brief overview of each of the seven pathway offerings here at JCTC:

**Health and Science**

If you are interested in providing physical therapeutic services to people, diagnosing illness and implementing strategies for health improvement, improving quality of life for people, exciting work environments, developing a better understanding of the human body, and the chance to wear scrubs to work, then Health Sciences could be your pathway.

**Public Safety**

If you are interested in planning, managing, and/or providing public safety, protective services, and homeland security, this pathway should interest you. Public Safety is geared for those students who are interested in a career as an EMT, Firefighter, or Police Officer. Those students who are ready to engage in a career centered around protecting the lives of others and becoming trained in the skills to do so should enter the Public Safety pathway.

**Information Technology**

If you like programming, web page design, computer graphics, multimedia, computer repair and networking, then Information Technology is your pathway. This pathway relates to the design, development, support and maintenance of hardware, software, multimedia and systems integration services.

**Business & Marketing**

If you are creative and enjoy finding unique ways to provide information about products and services to people, business $ marketing could be your pathway. Brand management, professional sales, merchandising, marketing communications, directing and evaluating business functions are all parts of this exciting career pathway.

**Family & Consumer Science**

If you enjoy working with people to meet their educational needs or if you enjoy trying and/or creating new food recipes or if you enjoy providing quality childcare, this varied pathway could be for you. Education, childcare, family & community services, culinary pursuits, and home design are featured aspects in this exciting pathway.

**STEM**

If you enjoy figuring out how things (living organisms or products) work, solving puzzles (actual or theoretical), taking things apart and putting them back together, and using your creativity in terms of design, the STEM pathway (science, technology, engineering, and math) may be for you. This pathway involves students in planning, managing, and providing scientific research strategies, including laboratory and testing services. This pathway includes our pre-engineering courses as well as our biomedical science courses. Students would choose between the two sub-pathways within the STEM pathway.

**Agricultural Science**

If you are interested in animal science, wildlife resources, plant science and/or mechanics, you may want to consider the agriculture pathway. Our classes often take you out of the traditional classroom and put you in settings such as the lab, greenhouse, shop and the great outdoors. Agricultural sciences deal with the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources. These courses are hands-on and activity based. If you enjoy working with various plants and/or animals and enjoy landscaping, turf, or floral design opportunities, then this could be your pathway.

A Career Major/Pathway is a sequence of recommended courses focusing on a specific career within the cluster. **To complete a career major, students must earn four career-related credits within the career major.**

A Career Major/Pathway within a designated career cluster is a graduation requirement for all Jessamine County students.

2 — JCTC Registration Directory
JESSAMINE COUNTY CAREER MAJORS

Bolded courses are recommended and/or required. Students who complete Career Majors noted in italics will earn the distinction of a CTE (Career and Technical Education) Completer. These students will be recognized at graduation as a CTE completer and may be eligible for Skills Standards Certification upon successful completion of a Skills Standards Test.

BOLDED COURSES ARE REQUIRED. You must choose at least THREE of these courses unless otherwise noted.

AGRICULTURE


HEALTH SCIENCES

CAREER MAJOR-ALLIED HEALTH SOPHOMORES AND UP ONLY Required Courses Principles of Health Science Medical Terminology Emergency Procedures Anatomy and Physiology I (BIO 137) Anatomy and Physiology II (BIO 139) Medicaid Nurse Aide (2 credit block) (NAA 100) Jr and Sr Pharmacy Tech EMT Basic Child and Human Development Nutritional Science

CAREER MAJOR-PRE-NURSING SOPHOMORES AND UP ONLY Required Courses-Must choose at least THREE of these. Principles of Health Science Medicaid Nurse Aide-Required-(2 credit block) (NAA 100) Medical Terminology Emergency Procedures Anatomy and Physiology I (BIO 137) Anatomy and Physiology II (BIO 139) Child and Human Development

BUSINESS AND MARKETING

CAREER MAJOR-MARKETING Business Principles Principles of Marketing Advanced Marketing Management I (prerequisite – principles of Marketing) At least one Business & Marketing Elective from the list.

CAREER MAJOR-SPORTS MARKETING Business Principles Principles of Marketing Sports & Event Marketing (prerequisite – principles of Marketing) At least one Business & Marketing Elective from the list.


CAREER MAJOR-ADVERTISING Business Principles Principles of Marketing Advertising and Promotion – (Prerequisite-Principles of Marketing) At least one Business & Marketing Elective from the list.

CAREER MAJOR-BUSINESS & MARKETING EDUCATION Business Principles Principles of Marketing Internet Marketing-(prerequisite-Principles of Marketing) At least one Business & Marketing Elective from the list.

CAREER MAJOR - E-Commerce Business Principles Principles of Marketing Internet Marketing-(prerequisite-Principles of Marketing) At least one Business & Marketing Elective from the list.

CAREER MAJOR-HOSPITALITY, TRAVEL, & TOURISM MARKETING Business Principles Principles of Marketing Travel & Tourism Marketing (prerequisite – principles of Marketing) At least one Business & Marketing Elective from the list.

PUBLIC SERVICES

CAREER MAJOR-EMT
EMT-Basic -Seniors Only-Driver’s License or Permit Required
Principles of Health Sciences
Medical Terminology
Emergency Procedures
Anatomy and Physiology I (BIO 137)
Anatomy and Physiology II (BIO 139)
911 Dispatch-Seniors only Application Process

CAREER MAJOR-FIRE SCIENCE
Public Safety Principles-Recommended
Fire Science Academy Part 1-2 blocks, 2 credits. Application process Jrs & Srs only Fall Semester
Fire Science Academy Part 2-2 blocks, 2 credits. Application process Jrs & Srs only Spring Semester
EMT Basic – Seniors Only- Driver’s license or permit required
911 Dispatch-Seniors only. Application Process

CAREER MAJOR-CRIMINAL JUSTICE
Required Courses-Must have FOUR
Public Safety Principles
Law and Order
Crime and Forensic Investigation
Advanced Criminal Justice (Dual credit for Jrs & Srs)
911 Dispatch

CAREER MAJOR-CRIMINAL JUSTICE AND CORRECTIONS
Homeland Security (Eastside Technical Center) *Must earn 4 credits

INFORMATION TECHNOLOGY

CAREER MAJOR- WEB DESIGN AND DEVELOPMENT
Required Courses-Must have all FOUR bold courses
Computer Applications or Are You Tech Enough
Exam Certification
Web Design
Advanced Web Design
Flash
Comp TIA A+ HARDWARE/ Troubleshooting IT 105
Comp TIA A+ SOFTWARE/ Troubleshooting IT 205

CAREER MAJOR-NETWORK ADMINISTRATION
Required Courses-Must have all FIVE
Computer Applications or Are you Tech Enough
Exam Certification
Comp TIA A+ HARDWARE/ Troubleshooting IT 105
Comp TIA A+ SOFTWARE/ Troubleshooting IT 205
Help Desk 1
Network (Dual Credit)

CAREER MAJOR- INFORMATION SUPPORT AND SERVICES-IT
Required Courses-Must have all FIVE
Computer Applications or Are You Tech Enough
Exam Certification
Comp TIA A+ HARDWARE/ Troubleshooting IT 105
Comp TIA A+ SOFTWARE/ Troubleshooting IT 205
Help Desk 1 IT 237 -By Instructor recommendation ONLY
Advanced Help Desk IT 238 -By Instructor recommendation ONLY

CAREER MAJOR- PROGRAMMING
Required Courses- Must have all FOUR
Computer Applications or Are You Tech Enough
Exam Certification
Web Design
Programming I
Java Programming II or AP Java Programming (2015-2016)
Flash
Gaming 3D (Computer Animation)

CAREER MAJOR- GAMING DESIGN & DEVELOPMENT
Principles of Gaming Design I
Gaming Design II
Gaming Design 3D (Computer Animation)
Programming I
Gaming Design IV-Capstone

FAMILY AND CONSUMER SCIENCE

CAREER MAJOR- EARLY CHILDHOOD EDUCATION
Parenting
Child/Human Development
Child Development Services I
Child Development Services II
Adv. Child & Human Development
Adv. Parenting
Principles of Teaching I
Principles of Teaching II
FACS Life Skills

CAREER MAJOR- FASHION AND INTERIOR DESIGN
FACS Life Skills
Fashion Design I
Fashion Design II
Fashion Marketing
Business Management
Principles of Marketing
Advertising & Promotion
Entrepreneurship
Floral Design

CAREER MAJOR- CULINARY & FOOD SERVICES
Foods and Nutrition
Advanced Foods and Nutrition
Culinary I
Culinary II
Nutritional Food Science
FACS Life Skills
Culinary Arts-Southside Technical Center

CAREER MAJOR- DIETETICS
Foods and Nutrition
Advanced Foods and Nutrition
Nutritional Food Science
Dietetics-Food, Nutrition & Wellness across the Lifespan
AP Chemistry
AP Biology

EDUCATION

CAREER MAJOR- FUNDAMENTALS OF TEACHING
Child & Human Development
Advanced Child & Human Development
Principles of Teaching I –Juniors and Seniors only
Leadership Dynamics
Computer Tech Applications

SCIENCE AND MATHEMATICS

CAREER MAJOR- PRE-ENGINEERING (PROJECT LEAD THE WAY)
Introduction to Engineering Design
Principles of Engineering
Digital Electronics
Civil Engineering & Architecture
Engineering Design and Development

CAREER MAJOR- BIOMEDICAL SCIENCE (PROJECT LEAD THE WAY)
Required Courses-MUST TAKE ALL FOUR COURSES IN THIS ORDER
Principles of Biomedical Science-Course 1
Human Body Systems –Course 2
Medical Interventions – Course 3
Biomedical Innovations – Course 4

COMMUNICATIONS

CAREER MAJOR- TELEMEDIA TECHNOLOGY
Television and Radio Technology (Eastside Technical Center) *Must earn 4 credits

CAREER MAJOR- TELECOMMUNICATIONS
Advanced Telecommunications (Eastside Technical Center)
*Must earn 4 credits

TRANSPORTATION

CAREER MAJOR- AUTOMOTIVE TECHNOLOGY
Automotive Technology (Eastside Technical Center)
*Must earn 4 credits

CAREER MAJOR- COLLISION REPAIR & REFINISH TECHNOLOGY
Automotive Collision Repair (Eastside Technical Center) *Must earn 4 credits
**JCTC INSTRUCTIONAL COURSE DIRECTORY SYMBOLS**

**SS** - symbols placed before and after a course indicate that it may count as college credit for student.

**HS (High School)** – This denotes the high school course title.

Types of college credit include the following:

**DC (Dual Credit)** - A course which counts as both a high school and college credit. The course may be aligned with Asbury University, BCTC, EKU, Kentucky State, Murray State, or other colleges/universities. Upon successful completion of the course, the student will have college credit which, in most cases, can be transferred to other institutions of higher learning if they choose not to attend the college/university that provided the course.

**AC (Articulated Credit)** – A course which will count as college credit if the student enrolls as a full time student at the college/university that provided the course. The student will receive high school credit as well for the course.

**TC (Test Credit)** – In some courses, at the end of the high school course, the student has the opportunity to take an end-of-course exam, which, if passed successfully, can lead to college credit for the student. There may be costs associated with the exam itself (AP courses are an example).

**Cost Summary**
Depending on the type of credit as well as the location of the course (college campus, Jessamine County Schools campus, online course), tuition costs and other associated costs (textbook/materials, security fee for BCTC campus courses, processing/application fees, etc.) may vary ranging from $0 to $400 per course. Please check with your counselor regarding the cost of a specific FYC course if you have questions or need additional information.

**MANUFACTURING**

**CAREER MAJOR- WELDING**
Welding (Southside Technical Center) *Must earn 4 credits

**CAREER MAJOR- IND ELECTRONICS TECHNOLOGY**
Electronic Technology (Southside Technical Center) *Must earn 4 credits

**CONSTRUCTION**

**CAREER MAJOR- RES/COMM CARPENTRY**
Carpentry (Southside Technical Center) *Must earn 4 credits

**CAREER MAJOR- RES/COMM ELECTRICITY**
Electricity (Southside Technical Center) *Must earn 4 credits

**CAREER MAJOR- MASONRY**
Masonry (Southside Technical Center) *Must earn 4 credits

**ARTS AND HUMANITIES**

**CAREER MAJORS in Music, Performing or Visual Arts**
Music and Performing and Visual Arts are offered at East Jessamine High School and West Jessamine High School.

**CAREER MAJORS in World Languages**
Advanced Concentration in World Languages is offered at East Jessamine High School, West Jessamine High School and Jessamine Career and Technology Center.

CTE Career Majors will earn the distinction of a CTE (Career and Technical Education) Completer. These students may be eligible to take an applicable Skills Standards Exam (KOSSA).

A Leadership Dynamics course may count as an additional elective toward a career major but cannot replace a recommended or required course.

As a graduation requirement, Jessamine County students must complete a 4 course pathway in one of Kentucky’s 16 career clusters.
### Agriculture

**Principles of Agricultural Science & Technology**

1 credit  
No Prerequisite  
9th-11th grade  
*No seniors will be allowed to enroll in this course*

This course introduces students to the various segments of the agriculture industry. Agricultural career opportunities will be emphasized. Basic animal science, plant and land science, and agricultural mechanics skills may be included. The selection and planning of a supervised agricultural experience program and related record keeping will be presented. Personal development and speaking skills will be heavily emphasized. Leadership development will be provided through the FFA. Students will receive personal guidance and counseling with preparatory instructional program selection. Each student will be expected to have a supervised agricultural experience program (SAE).

**Small Power Equipment**

1 credit  
No Prerequisite  
10th-12th grade  
*(This course will be taught at WJHS)*

Small Power and Equipment was developed to provide you with an understanding of the components that compose a small engine and introduce you to the industry as a whole. Content will include a study of history behind the industry, each system within the engine, an understanding of business principles, and assembly and disassembly. Leadership opportunities will be provided through the FFA, and character and career building will be explored through Supervised Agricultural Experience Program (SAE).

**Floral Design I**

1 credit  
No Prerequisite  
11th-12th grade  

This course is designed to allow students to use hands-on activities to learn floral design principles and techniques. Students will also study horticulture plant identification, marketing, and management while preparing for a career in floriculture. The content may be enhanced with appropriate computer applications. Leadership activities will be provided for students who wish to participate.  

(Fee $30.00 for floral materials)  
Each student will be expected to have a supervised agricultural experience program (SAE).

**Greenhouse Technology**

1 credit  
No Prerequisite  
11th-12th grade  

This course provides instruction in plant growth, development, and propagation as well as production and maintenance of bedding and container plants. Fundamental principles of vegetable production and commercial production of vegetable crops may be included. The course focuses heavily on application of skills in the greenhouse setting. Students will select varieties and produce and market a variety of greenhouse crops. The content may be enhanced with appropriate computer applications. Leadership activities will be provided for students who wish to participate. Each student will be expected to have a supervised agricultural experience program (SAE).

### Animal Science I

1 credit  
No Prerequisite. Freshmen may take after Prin. of Ag & Agriscience  
10th-12th grade  

This course develops knowledge and skills pertaining to livestock identification, selection, nutrition, reproduction and genetics, health management, and marketing of one or more species of farm animals. The latest biotechnology applications will be included. The content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE).

**Small Animal Technology**

1 credit  
Prerequisite: Principles of Ag  
9th*-12th grade  

This course develops scientific knowledge, management practices, and marketing strategies in small and specialty animal technology. The curriculum may include identification, anatomy, physiology, nutrition, health, selection and care of small animals such as cats, dogs, rabbits, companion birds, ostriches, emus, tropical fish and furbearers.  

The content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be encouraged to have a supervised agricultural experience program. Each student will be expected to have a supervised agricultural experience program (SAE).

**Wildlife Resources**

1 credit  
Prerequisite: Principle of Ag or Agriscience  
10th-12th grade  

If you are an outdoors lover, this course is for you. Curriculum in the class may include wildlife habitats, wildlife management, conservation, hunter ethics,
wildlife identification, harvesting, marketing, taxidermy, and understanding outdoor recreational enterprises. The content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be encouraged to have a supervised agricultural experience program. Each student will be expected to have a supervised agricultural experience program.

Environmental Science (Wildlife Resources II)

1 credit
Prerequisite: Wildlife Resources
Recommended: Biology
10th-12th grade
This course provides students with a foundation of understanding, knowledge and skills to deal effectively with environmental problems such as global warming, acid rain, endangered species and invasive plants and animals. Students learn a variety of basic laboratory and field techniques including soil and water sampling. The course incorporates both academic and applied studies that include fieldwork in the local area watershed and onsite field trips. The structure and function of natural ecosystems, the history of the environmental movement, impact of legal, economic and political systems on environmental concerns is taught. Students also gain a broad awareness of environmental science and technological career opportunities. An emphasis is placed on students using critical thinking and analytical skills to make a positive impact on the environment. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE).

SS AGR 100 Animal Science

Advanced Animal Science (HS)*
DC Course associated with Murray State University
1 high school credit/3 hours college credit
Prerequisite: Animal Science I
11th-12th grade
This accelerated course exposes students to the world of agriculture, animal science and career options. Students will have experiences in various animal science concepts, exciting hands-on activities, projects and problems. These experiences are based on the Project Lead the Way activity-based, project-based and problem-based learning. Students will study animal nutrition, anatomy and physiology, biotechnology and economic viability. Personal development and speaking skills will be heavily emphasized. Leadership development will be provided through the FFA. Students will receive personal guidance and counseling with preparatory instructional program selection. Each student will be expected to have a supervised agricultural experience program (SAE).

College credit will be available to those who meet Murray State University admission requirements of 3.0 gpa and 18 on ACT and pay the $150 course fee and $40 admission fee.

*Students may opt to take this course for high school credit only.

Veterinary Science

1 credit
Prerequisite: Animal Science & Strong Science background
10th-12th grade
Are you considering a career as a vet or a vet tech? This course is designed for students who are interested in a career in Veterinary / Animal Science. Topics will include veterinary terminology, anatomy and physiology, clinical exams, parasitology, laboratory techniques, and animal nutrition. A newly constructed lab is available to our students to carry out lab activities. What a great opportunity! Local veterinarians will visit to provide additional input, and Animal Hospital of Nicholasville will be our educational partner. If you love animals and want to take it to the next level, this is the course for you! ($10.00 fee)
Each student will be expected to have a supervised agricultural experience program (SAE).

Plant and Land Science

1 credit
9th*-12th grade
(*Must have taken Principles of Ag in 8th grader to enroll in this course as a freshman)
Plant and Land Science develops basic scientific knowledge and skills pertaining to management of the land and its effects on food and fiber production, the environment, and the quality of life. The relationship of land to plant growth will be emphasized. Plant composition, reproduction, growth, and current biotechnological advances will be included.
Each student will be expected to have a supervised agricultural experience program (SAE).

Sports Turf Management

1 credit
No Prerequisite
10th-12th grade
Turf Management provides a basic understanding of managing turf surfaces. Content that will be covered include: types of turf, installation, irrigation practices, management, sports turf, outdoor recreating turf, and utilization of turf for residential and commercial surfaces. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE).

Ag Sales

1 credit
No Prerequisite
10th-12th grade
This course provides an introduction to agricultural sales and marketing. Course material will include: Competition in the agriculture market place, marketing decisions, types of markets, contracting, government programs and regulations, personal development, employee and employer responsibilities, communications, promotion strategies, records, files, purchasing materials, stocking, selling and business account procedures. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE).

Equine Science

1 credit
No Prerequisite
Seniors only or Juniors with teacher permission
Equine science develops knowledge and skill pertaining to breed identification and selection, anatomy, physiology, nutrition, genetics and reproductive management, training principles, grooming, health, disease, parasite control and sanitation practices. Content may be enhanced with appropriate computer applications.
Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE).

**Ag Construction Skills**
1 credit  
Prerequisite: Geometry and Algebra I  
11th-12th grade  
This course prepares students to construct and maintain agricultural structures and equipment. Develops basic skills such as: tool identification, interpreting plans, calculating a bill of materials, electrification, carpentry, welding, metal fabrication, plumbing, and masonry. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program (SAE). This course may be extended to two credits offered on a two-hour basis provided that instruction is enhanced with laboratory experience, project construction, and in-depth skill development.

**ARTS & HUMANITIES COURSE OFFERINGS**  
(Students interested in completing an Arts & Humanities major will need to access the East Jessamine or West Jessamine High School course offerings.)

**BUSINESS AND MARKETING COURSE OFFERINGS**

**Principles of Business**  
1 credit  
What do a rock group’s tour, a pod-cast, and the NFL have in common? A: Business. It’s everywhere. In this course you’ll explore the major areas of business (marketing, management, and finance) through fun, real world projects.

This course establishes basic foundations for further study in business and marketing courses and provides essential information for making financial and economic decisions. Principles of Business, a project based business course, develops student understanding and skills in such areas as business law, economics, financial analysis, human resources management, information management, marketing, operations, and strategic management. Through the use of three projects, students acquire an understanding and appreciation of the business world. They develop a business analysis report, conduct an environmental scan of the local business community, and investigate business activities. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical thinking skills. Formal reflection is an ongoing component of the course. Leadership opportunities provided through DECA activities and competitive events.

**Principles of Marketing**  
1 credit  
Prerequisites: Principles of Business and/or Principles of Economics  
Why would Apple choose an e-mail campaign over a TV commercial? How does Nike determine its prices? Through projects and problems you will get inside marketers’ heads and find out what makes them tick.

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 chance of successful transition into the world of work. Leadership development will be provided through DECA activities and competitive events. Principles of Marketing is a project-based business course that develops student understanding and skills in the functional areas of marketing: channel management, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Students acquire an understanding and appreciation of each of the marketing functions and their ethical and legal issues. Decision matrices are employed to aid in market planning. This course is project based and hands on.

**Entrepreneurship**  
1 Credit  
Prerequisite: Advance Marketing Management  
Get an up-close look at managing. You’ll learn first-hand how to manage projects and people—and how to do it ethically and legally. Work as a team to conquer problems you face in the areas of management, including human resources, risk, and knowledge management. In this course students will deepen their understanding of management, marketing and finance through the operation of the school store. This course is designed to assist students with developing skills needed to be successful leaders and responsible members of society. The student will develop personal attributes and social skills. Emphasis will be placed on interpersonal skills, team building, communication, personal development and leadership. This course will include opportunities for students to apply their knowledge. Students will make connections between management, leadership, and business success. Students acquire an understanding of legal and ethical issues associated with management; initiate, plan, implement and control, and close a project; motivate team members; delegate work; develop a chain of command; coordinate work efforts; and interpret statistical findings.

**Advanced Marketing Management**  
1 credit  
Prerequisites one of the following... principles of marketing, travel and tourism marketing, fashion marketing, or sports marketing  
SCHOOL STORE  
This course is designed to enhance management and 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 relatedness. 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. Students will learn all aspects of business and marketing through the operations of the school store. Leadership development will be provided through DECA activities and competitive events.

**Advertising and Promotion**  
1 Credit  
Prerequisites: Principles of Marketing  
This course is designed to provide students with a realistic “hands-on” application of techniques used in the advertising and
promotion of goods and services. Students use digital media (computer-generated text, graphics, photographs, sound and video) equipment, while being exposed to all forms of media (print, web page, etc.) used by industry. Students will be involved in all aspects of advertising and promotion through the production of promotional videos and online ads. This course is based on the business and marketing core that includes communication skills, economics, financial analysis, product/service management and promotion. Leadership development will be provided through DECA.

**Fashion Marketing I**
1 Credit
Prerequisite: Principles of Marketing
This course is a specialized course that provides instruction in marketing of apparel and accessories. This course is based upon the business and marketing core that includes communication skills, economics, operations, professional development, promotion, selling, distribution and product/service management. The instruction includes basic fashion and marketing basics, the use of design and color, promotions, visual merchandising and career opportunities. Leadership development will be provided through DECA activities and competitive events, as well as the production of the annual fashion show.

**Fashion Marketing 2 (fashion marketing management)**
1 Credit
Prerequisite: Fashion Marketing I
This course is designed as a continuation of Fashion Marketing and provides an in-depth study of merchandising techniques, fashion trends, fashion promotion, and management skills. This course is based on the business and marketing core that includes communication skills, economics, operations, professional development, promotion, selling, distribution, and product/service management. Leadership development will be provided through DECA activities and competitive events, as well as the production of the annual fashion show. Theses students will be the managers of the show and leaders in the course. (independent study)

**Sports and Event Marketing**
1 Credit
Prerequisite (principles of marketing)
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**
1 Credit
Prerequisite (principles of marketing)
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), food and beverage marketing, and destination marketing. Leadership development will be provided through DECA.

**Internet Marketing**
1 Credit
Prerequisite (principles of marketing)
This course provides an in-depth study in electronic marketing/ commerce associated with the internet or sometimes called E-Commerce. Students learn how to practice good marketing principles in an “electronic” marketing place. This course is based on the Business and Marketing Core that includes communication skills, distribution, product/service planning, promotion, and selling. Leadership development will be provided through DECA as well as through management, development, and operations of the online school store.

**Business Management & Logistics**
1 Credit
Prerequisite: Prin of Business & Prin of Marketing
The Business Management and Logistics course provides students with an understanding of the business management functions, various management theories and the basic organization of a business. Students learn that Business Management is the process of using the resources of a business to efficiently and effectively achieve its goals through planning, organizing, staffing, leading and controlling. The study of business management is an essential component in the design and delivery of a comprehensive business education curriculum.

**ECO 190**
1 credit
Prerequisite: Prin of Business & Prin of Marketing
A study of consumer buying practices, family finances, protection of the consumer, and other problems of the household. The purpose of this course is to prepare the student to manage his/her own personal financial affairs in a competent manner as well as providing a foundation for later study and work in the financial planning field by examining the products and services offered by the financial services industry. This course is also designed for students who are interested in improving their practical math skills that are commonplace in the world of business and finance.

**COMMUNICATIONS COURSE OFFERINGS**
(Students interested in completing a communications major will need to access the Eastside Technical Center course offerings.)

**CONSTRUCTION COURSE OFFERINGS**
(Students interested in completing a construction major will need to access the Southside Technical Center course offerings.)

**EDUCATION COURSE OFFERINGS**

**Principles of Teaching I**
1 high school credit
11th-12th grade
Prerequisite: Child & Human Dev.
This course is designed to prepare students for a career in education. Students will explore all of the teaching standards recognized by the department of education. A portfolio is required of each student and a college text is used. A minimum of 15 hours of observation time is required, including observations at the elementary, middle, and high school level.
HEALTH SCIENCES
COURSE OFFERINGS

Principles of Health Sciences
1 credit
10th-12th grade
Principles of Health Sciences is generally the first course in the Health Science program. This course provides a foundation of core knowledge common to all health careers. The student will be able to build upon this knowledge as progress is made toward the next step in developing skills. The course will provide reliable and realistic information about health science careers and will enable the student to make informed decisions about career choices, the workplace, and post-secondary opportunities. Field trips to and/or guest speakers from various health care fields will be used to enhance learning.

Principles of the Biomedical Sciences™
Project Lead The Way
Biomedical Sciences Pathway-Class 1
(1 credit)
9th-12th grade
By using medical contexts to present the life science content outlined in the Program Studies, students will study practical biomedical concepts, they apply scientific ways of thinking and working to real-life problems. Students explore topics in the health sciences using a combination of labs, case studies and hands-on projects, and relate their understanding of concepts in biochemistry, cell biology and genetics that affect human body systems, including cancer, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. The course is designed to provide an overview of all the courses in the Biomedical Sciences Program and to lay the scientific foundation necessary for student success in the subsequent courses. Courses must be taken in order.

Human Body Systems™
Project Lead The Way
Biomedical Sciences Pathway-Class 2
(1 credit)
9th-12th grade
Students examine the processes, structures, and interactions of the human body systems to learn how they work together to maintain homeostasis (internal balance) and good health. Using real-world cases, students take the role of biomedical professionals and work together to solve medical mysteries. Hands-on projects include designing experiments, investigating the structures and functions of body systems, and using data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation. Important concepts covered in the course are communication, transport of substances, locomotion, metabolic processes, and protection. Prerequisite: Principles of Biomedical

Medical Interventions™
Project Lead The Way
Biomedical Sciences Pathway-Class 3
(1 credit)
10th-12th grade
Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a “How-To” manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the important roles scientific thinking and engineering design play in the development of interventions of the future.

Biomedical Innovations™
Project Lead The Way
Biomedical Sciences Pathway-Class 4
(1 credit)
10th-12th grade
Students design innovative solutions for the health challenges of the 21st century. They work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project with a mentor from a university, hospital, engineering, and public health. They have the opportunity to work on an independent project with a mentor from a university, hospital, research institution, or the biomedical industry.

Pharmacy Tech
1 credit
12th grade
Application and fee required
Through PASSAssured’s Pharmacy Technician Training Program, there is a 98% success rate for individuals successfully completing the program passing the national certification exam. PASSAssured offers a 150-hour curriculum version and is designed to use in a distance learning classroom. There will be a cost associated with this program and an additional cost to apply for a certificate of completion. Students must be 18 and a high school graduate to sit for the pharmacy tech exam in the summer following their graduation.

$BIO 137 Basic Anatomy & Physiology $“
Anatomy and Physiology I / (HS)
DC Course Associated with BCTC
1 high school credit/4 hours college credit
11th-12th grade
BIO 137 is the first semester of Anatomy and Physiology and covers basic chemistry, cell structure, cell physiology, metabolism, tissues and integumentary, skeletal, muscular, and nervous systems. Students successfully completing this course may qualify to receive 4 hours of dual credit through Bluegrass Community and Technical College. Students must complete BCTC...
Emergency Procedures (JCTC)
1 credit
10th-12th grade
Prerequisite: Principles of Health Science
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.

**$S NAA100 Medicaid Nurse Aid $S**

Medicaid Nurse Aide (HS)
DC Course Associated with BCCTC
2 high school credit/ 3 hours college credit
11th-12th grade
Prerequisite: Previous Pre-Nursing courses
Insurance fee: $15
Testing Fee: $30
Seniors receive preferential placement

The Medicaid Nurse Aide program consists of classroom instruction and clinical experience. The program is a minimum of 75 hours with 16 of these hours in the clinical setting. Classroom instruction provides the student with the knowledge and skills required to care for individuals in a long-term care facility/acute care facility. Instruction focuses on communication, infection control, safety, residents’ rights and basic nursing skills. The clinical experience allows the students to assume the role of a nurse aide and apply knowledge and skills learned in the classroom setting. Students should complete the Principles of Health Science and Emergency Procedures prior to taking this course. This program meets the requirements set forth by the Kentucky Medicaid Program and provides the opportunity for students to become State Registered Nurse Aide.

**FAMILY & CONSUMER SCIENCES COURSE OFFERINGS**

Child and Human Development
1 credit
9-12 Grade
This course provides learning experiences that will enable the student to examine the developmental processes in children from conception to adolescence. In each stage of development the student will explore physical, intellectual, and social/emotional needs of children. Students will also explore the challenges of parenthood. The topics of play, discipline, and child care will be included.

This is an excellent class for students interested in careers that involve children.

Advanced Child and Human Dev.
1 credit
10th-12th Grade
Prerequisite: Child and Human Development
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 the life stages, meeting the needs of exceptional children, promoting the growth and development in the early years, middle childhood, adolescent, and adulthood stages. Big projects include a pregnancy belly simulation and advanced reality baby project. Students will have the opportunity to complete a short field experience in elderly care.

Child Care Services I
1 credit
11th-12th grade
Prerequisite: Child/Human Development
This course provides training for entry-level positions in day care centers, nurseries, kindergartens, and private homes. Students study careers in child development, child guidance, children’s health and well being in group care, value of play, teaching strategies and management, and curriculum development. The subject content is reinforced with work practicum experience in an early childhood education setting.

Child Care Services II
1 credit
11th-12th grade
Prerequisite: Child & Human Dev. and Child Care Services I
This course is a continuation of Child Development Services I 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 childcare and development. Students gain in-depth work experiences in child-care establishments. Students will have the opportunity to work with children in the JCTC playschool lab. They will also have the opportunity to work with children at an elementary school if so desired.

Parenting
1 credit
9th-12th grade
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, understanding prenatal development, caring for the newborn, being an effective parent/caregiver, caring for the sick and elderly and exploring career opportunities in care giving. Students will complete a flour baby project and have the opportunity to take home a reality baby. Leadership development will be provided through the Family, Career and Community Leaders of America.

**Fashion/Interior Design I**
1 credit
9th-12th grade
Prerequisite: Life Skills
This course provides opportunities for students to develop career competencies in the fashion and/or interiors industry by applying information related to social, economic, and media influences. Students apply knowledge of design principles and processes through skill performance activities. Work experience will be explored and leadership development will be provided through Family, Career and Community Leaders of America.

**Fashion/Interior Design II**
1 credit
11th-12th grade
Prerequisite: Fashion & Interior Design I
This course provides opportunities for students to develop career competencies in the fashion and/or interiors industry. Practical problems include advanced textile construction techniques, and/or the creation of floor plans using current industry technology/resources. Entrepreneurial opportunities will be explored. Application of skills will occur in a variety of work sites. Leadership development will be provided through the Family, Career and Community Leaders of America.

**Life Skills**
1 credit
8th-10th grade
This comprehensive course provides an opportunity for acquiring basic life skills and guides students to explore and select specific areas for concentrated study. Emphasis is on family, employability skills, adolescent development, introduction to textiles, interiors and design, financial management, challenges of parenting, establishing healthy relationships, and creating a foundation for healthy lifestyles and nutrition. Leadership development will be provided through the Family, Career and Community Leaders of America.
Foods & Nutrition
1 credit
9th-12th grade
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 and careers in nutrition and food service. Leadership development will be provided through the Family, Career and Community Leaders of America.

Advanced Food and Nutrition
1 credit
9th-12th grade
Pre-requisite: Foods or consent of instructor.
This course is designed to assist students in principles related to food preparation. Specific content addressed will include planning, serving, food presentation, special diets, and nutrition for the lifespan, serving, and food planning for entertainment services. An emphasis on careers related to food service and nutrition (i.e. catering, dietitian, and other culinary careers). Lab instruction emphasizes the application process. Leadership development will be provided through the Family, Career and Community Leaders of America (FCCLA) student organization.

Culinary I
1 credit
9th-12th grade
Pre-requisite: Foods and/or Adv. Foods.
This advanced course allows students to increase competencies in a variety of food preparation techniques. Emphasis will be placed on food presentation, garnishing, menu planning and the skills necessary to prepare for a career in the culinary arts profession. Leadership development will be provided through the Family, Career and Community Leaders of America.

Culinary II
1 credit
9th-12th grade
Pre-requisite: 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. Time is provided for work based learning opportunities. Leadership development will be provided through the Family, Career and Community Leaders of America.

Nutritional Food Science
1 credit
9th-12th grade
Pre-requisite: Foods and/or Adv. Foods.
Nutritional Science is an interdisciplinary course that has a variety of applications to everyday life. Much of the study and work in this course is directed toward providing students with knowledge of nutrition concepts and the various relationships between nutrition and science. Scientific methods are used to conduct laboratory experiments with food. Students explore career possibilities in science, nutrition, microbiology, family and consumer sciences, dietetics and various research specialties. Leadership development will be provided through the Family, Career and Community Leaders of America (FCCLA) student organization.

Dietetics - Food, Nutrition and Wellness Across the Lifespan
1 credit
9th-12th grade
Pre-requisite: Foods and/or Adv. Foods.
This course is designed to assist advanced foods and culinary students in making critical dietary decisions about food, health and well-being. The course will focus on: the influence of scientific and technical advances in nutrition, food and wellness; structure and function of nutrients; industry food safety, management skills, ethics and career opportunities. Practical workplace problems will be addressed and analyzed using scientific and technical knowledge. Laboratory instructions are included as an application process. Workplace experience will be included and leadership development will be provided through Family, Career and Community Leaders of America.

INFORMATION TECHNOLOGY
COURSE OFFERINGS

$CIS 105$

Computer Troubleshooting Hardware\CompTIA A+ (HS)
1 credit - Fall Semester
(This course must be taken in the same year as Computer Troubleshooting Software.)
Prerequisite – Instructor approval
(9th-12th grade)
Course Description: The Computer Troubleshooting Hardware course will primarily focus on installing, maintaining and troubleshooting computer hardware. In addition, the students will gain the knowledge experience to purchase hardware and build a computer from the ground up. The course will also offer real world experience by giving the students the opportunity to maintain the technology at JCTC. The course follows the Comp TIA A+ curriculum and will prepare students for the A+ certification. The Comp TIA A+ certification is the industry standard for validating vendor-neutral skills expected of an entry-level computer technician. Those holding the A+ certification have a broad base of knowledge and competency in core hardware and operating system technologies including power supplies, form factors, processors, motherboards, memory, hard drives, expansion cards, multimedia hardware, printers, laptops and basic networking.

$CIS 205$

Computer Troubleshooting Software\CompTIA A+ (HS)
1 credit – Spring Semester
(This course must be taken in the same year as Computer Troubleshooting Hardware.)
Prerequisite – Computer Troubleshooting Hardware\CompTIA A+
(9th-12th grade)
Course Description: The Computer Troubleshooting Software course will primarily focus on installing, maintaining and troubleshooting computer software. In addition, the students will gain the knowledge experience to purchase software and install numerous operating systems. The course will also offer real world experience by giving the students the opportunity to maintain the technology at JCTC. The course follows the Comp TIA A+ curriculum and will prepare students for the A+ certification. The Comp TIA A+ certification is the industry standard for validating vendor-neutral skills expected of an entry-level computer technician. Those holding the A+ certification have a broad
Web Design
1 Credit
9th – 12th grade
Prerequisite: Proficiency score on the RUTECHENUFF exam.
Students analyze the structure of the World Wide-Web, by basic principles of web document and HTML, and develop multimedia web pages. Content will include the understanding of hypertext and web structures. Students learn to use web page development software to create or change web pages, inserting text content, graphics and interactive modules. They also learn to use research software tools to help design the look, feel and navigation of a web page. Web page update and work with the hardware associated with the web page is also emphasized.

$S$ NIS 160 Network+$S$
Network+ (HS)
DC - Dual-Credit Option
1 credit
Prerequisite – Computer Troubleshooting\A+ Hardware & Computer Troubleshooting\A+ Software
(10th-12th grade)
Course Description: Knowing how to install, configure, and troubleshoot a computer network is a highly marketable skill. This course first introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems. It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security. The course will prepare you to select the best network design, hardware, and software for your environment. You will also have the skills to build a network from scratch and maintain, upgrade, and troubleshoot an existing network. Finally, you will be prepared to pass CompTIA’s (the Computing Technology Industry Association’s) Network+ certification exam.
Specific topic coverage includes:

$S$ IT 237 $S$
Help Desk I (HS)
By Instructor Approval Only
DC - Dual-Credit Course Associated with BCTC
1 high school credit/ 3 hours college credit
Prerequisite – Computer Troubleshooting\A+ Hardware & Computer Troubleshooting\A+ Software
(10th-12th grade)
Course Description: This course provides an in-depth look at the process associated technologies available for customer service and support in a technical or non-technical environment. It focuses on the technology, tools and techniques involved in how to run an effective help desk. Students will look at the many software options available for tracking and managing data. Course includes hands-on, real-world projects using current help desk software.

$S$ IT 238 $S$
Help Desk II (HS)
By Instructor Approval Only
DC - Dual-Credit Option
1 high school credit/ \_ hours college credit
Prerequisite – Computer Troubleshooting\A+ Hardware & Computer Troubleshooting\A+ Software
(10th-12th grade)
Course Description: This is a continuation of Help Desk I. This course provides an in-depth look at the process associated technologies available for customer service and support in a technical or non-technical environment. It focuses on the technology, tools and techniques involved in how to run an effective help desk. Students will look at the many software options available for tracking and managing data. Course includes hands-on, real-world projects using current help desk software.

Advanced Web Design (JCTC)
1 Credit
Prerequisite: Web Design
Students analyze the structure of the worldwide web, using various languages including JavaScript, CSS, HTML - HTML5, and develop multimedia web pages. Course content will include the understanding of hypertext and web structures. Students learn to use web page development software to create or change web pages, inserting text content, graphics and interactive modules.

Principals of Gaming
1 credit
This course is a general introduction to Game Design. The course provides an overview of story development, gaming history, game reviews, current gaming trends and industry software. Students will begin to create and develop a game story/plot that can be further developed in higher level courses as well as critique current games. In addition, game development software will be explored to further enhance their design skills.
Gaming II
1 credit  
Prerequisite: Principles of Gaming  
This course is a continuation of Gaming I. This course will focus further on the design software utilized in the industry. Students will utilize their plot, characters and setting developed in Gaming I to complete projects with various multimedia software. The projects created in this course can be further developed in higher level courses.

Gaming Design III (3D Graphics)
1 credit  
Prerequisites: Principals of Gaming and Gaming II  
GD3 emphasizes creating 3D graphics using one or more state-of-the-art software packages. GD3 provides students with an understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, scripting and game setup using state-of-the-art software development tools.

Gaming Design IV (Capstone)
1 credit  
Prerequisites: Principals of Gaming, Gaming II and Gaming Design III (or Programming)  
Students will be required to produce a semester long Game Design portfolio to aid them when interviewing for industry positions. A student will develop a culminating project that will show his/her growth after taking Principals of Gaming, Game Design 2, and 3 (or programming). Examples of projects may include level development, 3D character production, Flash games, programming, game design ideas, game reviews and similar products.

PUBLIC SAFETY COURSE OFFERINGS

Public Safety Principles
1 credit  
This exciting introductory course will serve as an overview of all public safety career pathways: Criminal Justice, Fire Service, and EMS (Emergency Medical Services). However, students can take the course as a general elective also. Units will feature the various sectors of public safety (examples include crime prevention and investigations, fire control and prevention, emergency medical services, communications, homeland security, private security and investigations, drug and alcohol awareness, and the court system). Real Professionals will visit the class often and provide firsthand insight into how to perform their job. These speakers will be from the Nicholasville Police Department, Jessamine County Sheriff’s Office, Jessamine County EMS, Jessamine Co. Fire Department, Nicholasville Fire Department, FBI, KY State Trooper Office, Homeland Security, Probation and Parole Office, and more.

Crime & Forensic Investigation
1 credit  
This class is a comprehensive look at what actions are allowed for police and other law enforcement officers in the field. Topics covered include search and arrest laws, interrogation and crime scene behavior, constitutional rights, limitations on officer actions, how trials are affected by an officer actions, and interesting cases from Kentucky and US Courts.

Law & Order
1 credit  
Prerequisite: Interest in pursuing Criminal Law and Order is a comprehensive look at all of the fundamental steps of a trial, from pre-trial evidence exchange to sentencing. Major topics covered include motions, admissibility of evidence, hearings, evidence presentation, Juries, Burden of Proof, witness quafification, witness questioning, exhibits, and more. Real cases are used in instruction and students will put their trial knowledge to practice in mock trial exhibitions.

9-1-1 Dispatch
1 credit  
12th grade  
Application and fee required  
This course, which allows students to become certified as a 9-1-1 Dispatch Operator, will have limited enrollment.

$100 EKU100 $  
Advanced Criminal Justice (HS)
1 credit  
Dual Credit Course  
3 hours College Credit + 1 High School Credit  
This course is an exciting overview of how Law and Justice works. The goal is to prepare students for all major career areas in the legal world. Topics include how crime is prosecuted, how crimes are made, how agents and police do their jobs, the limits on officers and agents, the punishment/prison system, and a description to all major law agencies (Police, FBI, CIA, and more). Legal concepts covered are foundational to all legal positions - from local police, to Federal Agents, to Homeland Security. This is a rigorous course where students can achieve College Credit and students will be expected to work on a college level.

$100 EMC 110 Introduction to Emergency Medical Care $  
Emergency Medical Technician-Basic  
EMT-B (HS)
1 credit  
2 high school credits/3 hours college credit  
Seniors Only  
Fee: $10  
Prerequisite: Prin of Health, CPR training or instructor approval  
Basic candidates will become familiar in the detailed aspects of emergency medical care. The EMT-B course is divided into 7 modules of instruction which include; preparatory, patient assessment, airway, medical/behavioral emergencies, trauma, infants and children, and EMS operations. An elective module in Advanced Airway is an addition to the course. The EMT-B course is designed to prepare the student for National Certification Board exams as well as “true to life” patient care. The EMT-B course will consist 145 hours of lecture and “hands on” skill labs (this does not include any internship with active EMS units assessing and treating injured or ill patients during the certification). The EMT-B candidate who successfully completes all portions of the EMT-B course will sit for National Boards in the attempt to obtain National Registry and Kentucky State Certification. In order to fulfill the Kentucky and National Standards this course will retain the option of conducting Saturday classes. It is the utmost of importance that all participating students attend all classes. The issue of missing class will hinder the student’s ability to comply with the National Standards.

Enrollment Requirements: (202 KAR 7:301  
EMT, Section 1)  
(1) Individuals shall be eligible to enroll as a student in an EMT education and training
(a) Is at least sixteen (16) years of age; and
(b) Is currently enrolled in grades 9-12 with a minimum GPA of 2.0; or
(c) Holds a high school diploma or GED.

(2) The student applicant shall:
(a) Understand, read, speak, and write the English language with a comprehension and performance level equal to at least the ninth grade of education, otherwise known as Level 4, verified by testing as necessary;
(b) Not currently be subject to disciplinary action pursuant to KRS Chapter 311A; and
(c) Meet all additional requirements established by the EMS-TEI; and
(d) Hold a valid motor vehicle operator’s license or learners permit from a state or territory in the United States.

**Certification Requirements:** (202 KAR 7:301 EMT Section (1), (2))

(1) Individuals desiring initial certification as an EMT shall:
(a) Meet all of the requirements of Section 1 of this administrative regulation;
(b) Be at least eighteen (18) years of age; and
(c) Hold a high school diploma or GED;
(d) Successfully complete an education and training program that conforms to the curriculum of the United States Department of Transportation, National Highway Traffic Safety Administration, 1994 National Standard Curriculum for Emergency Medical Technician-Basic, which shall not be satisfied by the completion of refresher or transition courses alone;
(e) Obtain NREMT registration as a NREMT-B;
(f) Submit a completed and signed “Emergency Medical Technician Initial Certification Application;”
(g) Present written evidence of completion of current HIV/AIDS training required by KRS 311A.110;
(h) Pay the fee required by 202 KAR 7:030; and
(i) Present written evidence of completion of current training in CPR that:
1. Shall be taught by an individual who holds instructor certification at an appropriate level from:
   a. The American Red Cross;
   b. The AHA;
   c. The National Safety Council;
   d. The ASHI; or
   e. Another board approved organization; and
2. Provides instruction and testing in:
   a. One (1) rescuer CPR;

*Fire Science Academy Part I-Fundamentals of Fire Fighting*

2 credits - 2 blocks - Fall Semester
Recommended: Public Safety
11th-12th grade

This class is held during 1st and 2nd blocks of the Fall Semester only and is required to enroll in Advanced Fundamentals of Fire Fighting in the spring. This course focuses on fundamentals of Fire Fighting and basic introductory skills. Students will have the opportunity to earn the following industry certificates: NIMS 100b and Haz-whopper.

*Fire Science Academy Part II-Advanced Fire Fighting*

2 credits - 2 blocks - Spring Semester
Prerequisite: Fire Science I
11th-12th grade

This class is held during 1st and 2nd blocks of the spring semester. Advanced Fire Fighting will enhance fire service knowledge and advance Fire Fighter skills and abilities of the student. Testing on curriculum and skill drills will be expected in order to complete this class. Industry certificate opportunities: NIMS 200 b, CPR & AED, Hazmat Awareness. The curriculum is NFPA and IAFC approved, preparing the student for the State Fire Commission Fire Fighter I certification provided the student completes required testing upon the age of 18.

*These courses should be taken consecutively in the same school year.*

**SCIENCE & MATHEMATICS COURSE OFFERINGS**

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<tr>
<td>AP Chemistry</td>
<td>2 credits</td>
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<td>Prerequisite: Algebra II and Chemistry I or teacher/counselor recommendation</td>
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<tr>
<td>(11th-12 grade)</td>
<td>Lab Fee $20</td>
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<td>This year long course is designed for students interested in taking the AP Chemistry Exam for college credit or the American Chemical Society exam at the University of Kentucky. All areas of Chemistry are covered using a college level text. Students need to have a thorough background in Chemistry I and math.</td>
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<tr>
<td>AP Statistics</td>
<td>2 credits</td>
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<tr>
<td>11th – 12th Grade</td>
<td>Prerequisite: Algebra II</td>
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<td>Students will continue developing an understanding of statistics through exploratory analysis, planning a study, probability, and statistical inference. Students will explore and integrate statistical procedures through graphical representations, observation of patterns, and formulation of models to make and test conjectures. This course is designed to prepare students for the Advanced Placement Exam in May. A graphing calculator is required for this course. Students should see their most recent math teacher for a recommendation.</td>
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**PRE-ENGINEERING CAREER MAJOR THROUGH “PROJECT LEAD THE WAY”**

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<tr>
<td>Intro to Engineering Design (HS)</td>
<td>1 high school credit</td>
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<tr>
<td>Prerequisite: Algebra I or currently enrolled</td>
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<tr>
<td>9th-12th grade</td>
<td>A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.</td>
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Principles of Engineering (JCTC)
1 high school credit
Prerequisite: Algebra I
9th-12th grade
A course that helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

Engineering Design & Development
1 credit
10th-12th grade
Prerequisite: IED and POE and one of DE or KEA (or current enrollment).
Engineering Design and Development is a research course that requires students to formulate the solution to an open-ended engineering question. With a community mentor and skills gained in their previous courses, students create written reports and working prototypes of their designs, defend the designs, and submit them to a panel of outside reviewers at the end of the school year. Instructor approval is needed for any student who does not meet ALL of the above requirements.

Civil Engineering and Architectural Design (JCTC)
1 high school credit
10th-12th grade
Prerequisites: IED and POE and Geometry (or currently enrolled)
This course provides an overview of the field of Civil Engineering while emphasizing the interrelationship and dependence of both the fields of Civil Engineering and Architecture on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. Instructor approval is needed for any student who does not meet the above requirements.

Digital Electronics
2 high school credits - 2 blocks
10th-12th grade
Prerequisites: IED and POE and Algebra II
Students not meeting the above requirements must have instructor approval before enrolling in the course.
The major focus of the DE course is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Digital electronics is the foundation of all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras, high definition televisions, etc.

SOCIAL SCIENCES
COURSE OFFERINGS

College & Career Readiness - CCR
1 credit for course and up to 2 additional credits for approved work experience
12th grade students ONLY
**Now only available as an online course!
Students will be required to meet at JCTC for the first five days of the course to receive on-line course training and receive further instructions as to meeting dates & times.
College & Career Readiness is for seniors only and is required for those students enrolled in work block/work based learning. Topics covered include analysis of various work related issues, development of resumes, cover letters, and interviewing techniques. Studies include how personality and learning style affect career choice. Methods of college selection and affordability are also explored. Students are exposed to a wide variety of colleges, universities, and careers. Lessons providing financial literacy, virtue and character are also weaved throughout the course. College visits are available to interested students. (Though online, students are required to participate in periodic in-class sessions at the instructor’s discretion.)

TRANSPORTATION
COURSE OFFERINGS
(Students interested in completing will need to access the Eastside Technical Center course offerings.)