

Career & Technical Education
Curriculum Alignment with
Common Core ELA & Math Standards

Emergency
Procedures

**HEALTH SCIENCE CLUSTER
CAREER MAJORS**

Allied Health
Recommended Courses
Principles of Health Science Medical Math Medical Terminology Medical Science* or Body Structure and Function Health and Wellness** or Holistic Health Emergency Procedures Allied Health Core Skills Advanced HCS/Practicum Pharmacology Medical Microbiology
Elective Courses
Food Science Child/Human Development Nutritional Science Psychology/Sociology Child Care Chemistry/Physics Anatomy & Physiology Leadership Dynamics Other Courses directly related to Career Major

Note:

- **Three credits must come from recommended courses.**
- ***Meets Life Science requirement for high school graduation.**
- ****Meets Health requirement for high school graduation.**

EMERGENCY PROCEDURES

Course Description: 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.

Content/Process

Students will

1. demonstrate proper emergency rescue and transport procedures.
2. analyze emergency situations and determine appropriate emergency care
3. investigate legal and ethical issues related to emergency procedures.
4. demonstrate correct use of PPE in relation to standard precautions for prevention or spread of disease.
5. compose an emergency plan for the home.
6. assess the physical and mental status of the client.
7. research and debate issues concerning organ donation.
8. evaluate data related to the mortality rate of the local community.
9. identify and locate designated emergency shelters in the community.
10. compare and contrast emergency procedures used in the media to reality.
11. inspect the school and/or home for potential safety hazards.
12. evaluate current health or safety issues in the community.
13. research current data available on the economic impact of life support systems.
14. evaluate emergency services and resources available in the community.
15. demonstrate proficiency in CPR, AED and first aid techniques.
16. utilize activities of Health Occupations Students of America (HOSA) as an integral component of course content, skills application, and leadership development.
17. use information technology applications as appropriate to health care specialties.
18. integrate literacy and numeracy concepts and processes across all curricular units
19. demonstrate employability and social skills relevant to careers.

Connections

- Kentucky Occupational Skill Standards
- American Heart Association/National Safety Council
- American Red Cross/American Safety Health Institute (ASHI)
- National Health Care Skills Standards
- Occupational Safety and Health Administration Standards (OSHA)

Course Title	170141 - Emergency Procedures	Grade Levels	9 - 12	Credit Value	0.5 to 1.0
Description	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.				
Prerequisites	Optional - Medical Terminology I, Medical Terminology II, Principles of Health Science				
Unit Title	<u>CPR/AED/FBAO</u>				

Technical Content

Demonstrate proper emergency rescue and transport procedures.

Analyze emergency situations and determine appropriate emergency care

National Standards

10.11 Apply procedures for measuring and recording vital signs including the normal ranges.

10.12 Apply skills to obtain training or certification in cardiobulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid.

5.11 Analyze legal responsibilities.

5.12 Apply procedures for accurate documentation and record keeping.

5.21 Understand informed consent.

KY Core Academic Standards (Big Idea)

Employability Skills - Vocational Studies

Employability skills will focus on student’s competencies with their work habits and academic/technical skills that will impact an individual’s success in school and workplace. School-to-work transition skills will help students develop interpersonal skills and positive work habits.

English/Language Arts Common Core Standards

CC.11-12.W.7 Research to Build and Present Knowledge: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Technical Literacy Standards

Reading / 9-10 / #1 – Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

Reading / 9-10 / #2 – Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.

Reading / 9-10 / #4 – Determine the meaning of symbols, key terms, and other domain-specific words/phrases as they are used in specific scientific and technical context.

Reading / 9-10 / #7 – Translate quantitative or technical information expressed in words in a text into visual form (e.g. chart / table) and translate information expressed visually or mathematically (e.g. in an equation) into words.

Writing / 9-10 / #6 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

Mathematics Common Core Standards

CC.9-12.S.IC.6 Evaluate reports based on data.*

KOSSA Standards

EE001 Analyze legal responsibilities, limitations, and implications of actions

EE002 Use problem-solving techniques when confronted with legal dilemmas or issues

EF001 Perform duties according to regulations, policies, laws, and legislated rights of clients

Learning Targets

I. Demonstrates cardiopulmonary resuscitation and automated external defibrillator skills in a laboratory setting.

II. Students will be able to correctly measure and record vital signs and verbalize normal ranges.

III. Analyze legal responsibilities.

IV. Identify aspects of informed consent.

Sample Learner Activities - Contact Health Science Consultant for Resources

I. Complete the requirements to obtain CPR and AED certification.

II. Teach students to assess homeostasis

A. Blood Pressure

B. Pulse

C. Respiration

III. Research Good Samaritan Law

A. Seek and find puzzle on terms related to healthcare.

IV. Analyze informed consent document.

A. Role-play emergency situations to see if informed consent is obtained.

Course Title **170141 - Emergency Procedures**

Grade Levels 9 - 12

Credit Value 0.5 to 1.0

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Prerequisites Optional - Medical Terminology I, Medical Terminology II, Principles of Health Science

Unit Title Infection Control

Technical Content

Demonstrate correct use of PPE in relation to standard precautions for prevention or spread of disease.

National Standards

1.22 Explain principles of infection control.

7.11 Describe methods of controlling the spread and growth of microorganisms.

7.12 Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.

7.21 Recognize emerging diseases and disorders.

KY Core Academic Standards (Big Idea)

Financial Literacy - Vocational Studies

Financial literacy provides knowledge so that students are responsible for their personal economic well-being. As consumers, individuals need economic knowledge as a base for making financial decisions impacting short and long term goals throughout one's lifetime. Financial literacy will empower students by providing them with the knowledge, skills and awareness needed to establish a foundation for a future of financial responsibility and economic independence.

English/Language Arts Common Core Standards

CC.9-10.SL.2 Comprehension and Collaboration: Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.

CC.9-10.W.4 Production and Distribution of Writing: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

Technical Literacy Standards

Reading / 9-10 / #1 – Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

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Mathematics Common Core Standards

CC.9-12.S.IC.6 Evaluate reports based on data.*

KOSSA Standards

EJ001 Practice infection control procedures (i.e. airborne, droplet, contact)

EJ002 Practice appropriate cleaning, disinfecting, and sterilizing processes

EK002 Manage a personal exposure incident in compliance with OSHA regulations

OB002 Analyze methods to control the spread of pathogenic microorganisms

Learning Targets

Verbalize proper protocol for infection control.

Sample Learner Activities - Contact Health Science Consultant for Resources

- A. Correct use of PPE-allow students to put on gloves, gown, masks, etc.
- B. Teach correct procedure for hand hygiene.
- C. Teach chain of infection-students draw and label chain of infection.
- D. Use glo-germ and black light.
- E. Powerpoint/poster presentation on communicable diseases.

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Prerequisites Optional - Medical Terminology I, Medical Terminology II, Principles of Health Science

Unit Title First Aid

Technical Content

Demonstrate use of standard precautions.

Demonstrate first aid techniques for certification including tasks required by the standardized course of the American Heart Association, National Safety Council or American Red Cross.

Participate in a medical disaster dramatization (optional).

Utilize activities of HOSA as an integral component of course content, skills application and leadership development.

National Standards

7.21 Apply personal safety procedures based on Occupational Safety and health Administration (OSHA) and Centers for Disease Control (CDC) regulations.

7.52 Apply principles of basic emergency response in natural disasters and other emergencies.

8.22 Analyze attributes and attitudes of an effective leader.

10.12 Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid.

KY Core Academic Standards (Big Idea)

Career Awareness, Exploration, Planning - Vocational Studies

Career awareness, exploration and planning gives students the opportunity to discover the various career areas that exist and introduce them to the realities involved with the workplace. Many factors need to be considered when selecting a career path and preparing for employment. Career awareness, exploration and planning will enable students to recognize the value of education, learn how to plan for careers and integrate academic subjects.

Technical Literacy Standards

Reading / 9-10 / #1 – Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

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KOSSA Standards

OH001 Apply Standard Precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration (OSHA)

OH004 Obtain First Aid Certification

EN002 Construct a basic emergency plan for a health care setting in response to a natural disaster or other emergency that disrupts the ability to provide care

EP005 Exercise leadership skills as appropriate

Learning Targets

Produce and publish pamphlet to be used by general public for emergency preparedness.

Research correlation between emergency medical availability and mortality rate of various communities. Present findings using various media.

Sample Learner Activities - Contact Health Science Consultant for Resources

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Prerequisites Optional - Medical Terminology I, Medical Terminology II, Principles of Health Science

Unit Title **Legal and Ethical Issues**

Technical Content

Investigate legal and ethical issues related to emergency procedures.

Research and debate issues concerning organ donation.

Compare and contrast emergency procedures used in the media to reality.

Evaluate current health or safety issues in the community.

Research current data available on the economic impact of life support systems.

National Standards

3.11 Understand the healthcare delivery system (public, private, government, and non-profit).

3.12 Explain the factors influencing healthcare delivery systems.

6.11 Differentiate between ethical and legal issues impacting healthcare.

6.12 Recognize ethical issues and their implications related to healthcare.

6.31 understand religious and cultural values as they impact healthcare.

KY Core Academic Standards (Big Idea)

Consumer Decisions - Vocational Studies

Individual and families need to make consumer decisions due to the numerous products/services on the market, multiple advertising techniques, and the need to make responsible financial management decisions.

Accessing and assessing consumer information, comparing and evaluating products and services, provides basis for making effective consumer decisions. Consumer decisions influence the use of resources and the impact they have on the community and environment.

Communication/Technology - Vocational Studies

Special communication and technology skills are needed for success in schooling and in the workplace. Students will be able to express information and ideas using a variety of technologies in various ways.

Technical Literacy Standards

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KOSSA Standards

EG002 Differentiate between ethical and legal issues impacting health care

EG005 Discuss bio-ethical issues related to health care

OG005 Evaluate the validity of alternative health practices

OD002 Predict where and how factors such as: cost, managed care, technology, an aging population, access to care, alternative therapies, and lifestyle/behavior changes may affect various health care delivery

EG002 Differentiate between ethical and legal issues impacting health care

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Prerequisites Optional - Medical Terminology I, Medical Terminology II, Principles of Health Science

Unit Title Promotion of Safety

Technical Content

Compose an emergency plan for the home.

Inspect the school and/or home for potential safety hazards.

National Standards

7.41 Comply with safety signs, symbols and labels.

5.12 Apply procedures for reporting activities and behaviors that affect the health, safety and welfare of others.

7.52 Apply principles of basic emergency response in natural disasters and other emergencies.

7.42 Understand implications of hazardous materials.

6.31 Understand religious and cultural values as they impact healthcare.

6.32 Demonstrate respectful and empathetic treatment of aLL patients/clients (customer service).

3.11 Understand the healthcare delivery system (public, private, government, and non-profit).

KY Core Academic Standards (Big Idea)

Financial Literacy - Vocational Studies

Financial literacy provides knowledge so that students are responsible for their personal economic well-being. As consumers, individuals need economic knowledge as a base for making financial decisions impacting short and long term goals throughout one's lifetime. Financial literacy will empower students by providing them with the knowledge, skills and awareness needed to establish a foundation for a future of financial responsibility and economic independence.

English/Language Arts Common Core Standards

CC.9-10.W.6 Production and Distribution of Writing: Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

CC.11-12.SL.5 Presentation of Knowledge and Ideas: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Technical Literacy Standards

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Mathematics Common Core Standards

CC.9-12.F.BF.1 Write a function that describes a relationship between two quantities.*

KOSSA Standards

EM003 Comply with safety signs, symbols, and labels

EH003 Report activities and behaviors by self and others that adversely affect the health, safety, or welfare of students, clients, or co-workers

EM002 Adhere to hazardous labeling requirements

EN002 Construct a basic emergency plan for a health care setting in response to a natural disaster or other emergency that disrupts the ability to provide care

EI001 Discuss the impact of religions and cultures on those giving and receiving health care with an understanding of past and present events

EI002 Demonstrate respect of individual cultural, social, and ethnic diversity within the health care environment

OC001 Describe systems theory and its components

Learning Targets

Sample Learner Activities - Contact Health Science Consultant for Resources

The student recognizes the importance of maintaining a safe environment and eliminating hazardous situations.

The student relates industry standards such as standard precautions, fire prevention, safety practices and appropriate actions to emergency situations.

The student identifies safety practices in all aspects of the health science industry.