

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

Principles of Health Science

**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.**

PRINCIPLES OF HEALTH SCIENCE

Course Description: Principles of Health Science is an orientation and foundation for occupations and functions in any health care profession. The course includes broad health care core standards that specify the knowledge and skills needed by the vast majority of health care workers. The course focuses on exploring health career options, history of health care, ethical and legal responsibilities, leadership development, safety concepts, health care systems and processes, and basic health care industry skills. This introductory course may be a pre-requisite for additional courses in the Health Science program.

Content/Process

Students will

1. analyze and interpret medical milestones, conditions, trends and issues to develop historical perspectives about the health care industry
2. explore the organizational structure of various health care facilities
3. observe, analyze and interpret human behaviors, social groupings and institutions to better understand people and the relationship among individuals and among groups.
4. identify how key systems affect services performed and the quality of health care.
5. describe ethical practices with respect to cultural, social and ethnic differences within the health care environment.
6. recognize legal responsibilities, limitations and the implications of actions within the health care industry and manage professional behavior accordingly.
7. evaluate services, products, and resources available in the community and state in order to make effective consumer decisions.
8. follow health and safety policies and procedures to prevent injury or illness through safe work practices.
9. understand the roles and responsibilities of the health care team and interact effectively with all team members.
10. explore Maslows' Hierarchy of Needs.
11. recognize an acceptable Code of Conduct for a health care worker.
12. use strategies for choosing and preparing for a career in the health care industry.
13. apply methods of giving and obtaining information to communicate effectively, both orally and in writing.
14. demonstrate skills and work habits that lead to success in future schooling and work.
15. utilize activities of Health Occupations Students of America (HOSA) as an integral component of course content, skills application, and leadership development.
16. use information technology applications as appropriate to health care specialties.
17. integrate literacy and numeracy concepts and processes across all curricular units
18. demonstrate key employability skills (e.g. interviewing, writing resumes, completing applications) needed for further education or employment.

Connections

- Kentucky Occupational Skill Standards
- Kentucky Tech Curriculum
- National Health Care Core Standards

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
Description	Principles of Health Science is an introduction to systems and functions of healthcare careers. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well in teams. The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students explore health career options, and are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. [This course is the first of 3 core courses identified for students to be successful on the Allied Health KOSSA.]				
Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				

Unit Title **Communications**

Technical Content

- Interpret verbal and nonverbal communication.
- Recognize barriers to communication.
- Report subjective and objective information.
- Recognize the elements of communication using a sender-receiver model.
- Apply speaking and active listening skills.
- Use roots, prefixes, and suffixes to communicate information.
- Use medical abbreviations to communicate information.
- Recognize elements of written and electronic communication (spelling, grammar, and formatting).

National Standards

- 2.11 Interpret verbal and nonverbal communication.
- 2.12 Recognize barriers to communication.
- 2.13 Report subjective and objective information.
- 2.14 Recognize the elements of communication using a sender-reciever model.
- 2.15 Apply speaking and active listening skills.
- 2.21 Use roots, prefixes, and suffixes to communicate information.
- 2.22 Use medical abbreviations to communicate information.
- 2.31 Recognize elements of written and electronic communication (spelling, grammar, and formatting).

KY Core Academic Standards (Big Idea)

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.

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.

English/Language Arts Common Core Standards

CC.9-10.L.4.c Vocabulary Acquisition and Use: Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology.

CC.9-10.L.5 Vocabulary Acquisition and Use: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

CC.9-10.R.L.4 Craft and Structure: Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).

CC.9-10.SL.1 Comprehension and Collaboration: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

CC.9-10.SL.1.c Comprehension and Collaboration: Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

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

Reading/9-10/#5-Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

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.

Mathematics Common Core Standards

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

KOSSA Standards

AA001 Adjust communication to other's ability to understand

AA002 Apply the elements of communication using the sender-receiver model

AA003 Apply active listening skills using reflection, restatement, and clarification techniques

AA004 Demonstrate courtesy to others including self introduction

AA005 Interpret verbal and non-verbal behaviors to augment communication and within scope of practice

AB001 Report relevant information in order of occurrence

AC002 Interpret, transcribe, and communicate information, data, and observations using medical terminology within scope of practice

AD002 Use communication technology (Fax, E-mail, Internet) to access and distribute data and other information

Learning Targets

Healthcare professionals will know the various methods of giving and obtaining information and will communicate effectively, both orally and in writing.

Sample Learner Activities - Contact Health Science Consultant for Resources

- I. Show pictures of different types of verbal and non-verbal types of communication and have the students determine which it is.
- II. Non-verbal communication activity - students act out non-verbal types of communication.
- III. Give students a list of activities to do - one student is the receiver, one is the sender. Have them send a message and see what is missing to make it be a good message.
- IV. Have the students in a circle and start a message and see what it is when it reaches the end of the circle.
- V. Have students make a flyer on an event they create; have them give all the details of the event and have other students critique the flyer to determine if all elements are present to give the information needed for the event to happen correctly.
- VI. Supplemental Resources, Foundation Standard 2
 - A. 2:11, pages 27-29
 - B. 2:12, pages 30-32
 - C. 2:13 through 2:15, pages 33-35 (powerpoint on resource CD)
 - D. 2:16, pages 16-36
 - E. 2:31, pages 50-51
- VII. Simmers, Diversified Health Occupations (Teacher Resources), Non-verbal communication activity, page 475

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Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				
Unit Title	<u>Healthcare Systems and History of Health Care</u>				

Technical Content

- Understand the healthcare delivery system (public, private, government, and non-profit).
- Explain the factors influencing healthcare delivery systems.
- Describe the responsibilities of consumers within the healthcare system.
- Explain the impact of emerging issues such as technology, epidemiology, bioethics, and socioeconomics on healthcare delivery systems.
- Discuss common methods of payment for healthcare.

National Standards

- 3.11 Understand the healthcare delivery system (public, private, government, and non-profit).
- 3.12 Explain the factors influencing healthcare delivery system.
- 3.13 Describe the responsibilities of consumers within the healthcare system.
- 3.14 Explain the impact of emerging issues such as technology, epideminology, bioethics, and socioeconomics on helthcare delivery system.
- 3.15 Discuss common methods of payment for 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.

English/Language Arts Common Core Standards

CC.9-10.R.1.2 Key Ideas and Details: Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

CC.9-10.R.1.3 Key Ideas and Details: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

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 / #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.

Reading / 9-10 / #9 – Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Writing / 9-10 / #2 – Write informative / explanatory texts, including narration of historical events, scientific procedures / experiments, or technical processes.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.

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 / #7 – Conduct short as well as more sustained research projects to answer a 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.

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.MD.5b (+) Evaluate and compare strategies on the basis of expected values. For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.*

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

KOSSA Standards

OD001 Construct a health care delivery system model

OC001 Describe systems theory and its components

OC002 Construct a general systems model using inputs, throughputs, and feedback loop

OF001 Analyze the cause and effect on health care system change based on the influence of: technology, epidemiology, bio-ethics, socio-economics, and various forms of complimentary (non-traditional) medicine

OD004 Calculate the cost effectiveness of two separate health care delivery systems

Learning Targets

Healthcare students will understand how their role fits into their department, their organization and the overall healthcare environment, and will identify how key systems affect services they perform

Sample Learner Activities - Contact Health Science Consultant for Resources

I. Have students discuss the different type of healthcare facilities that they have visited and discuss which type of healthcare system it is.

II. Show pictures of different facilities and ask students what type of care would be obtained at each facility.

III. Show a patient bill (statement) from a hospital stay - discuss the type of payment could be made on this bill and how what process is required to cover the cost of the stay.

IV. Have student sdiscuss the changes over time in health care and how it affects their lives(example - the water/sewage systems).

V. Have students make a brochure on a healthcare facility they create and have them add all the information learned on the topic.

VI. Supplemental Resources, Foundation Standard 3

A. 3.11, pages 18-20 (directions, page 9)

B. 3.12, pages 21-23

C. 3.14, pages 27-31

D. 3:15, pages 32-35

VII. Simmers, Diversified Health Occupations

A. Career Exploration Activity, (Teacher Resources), pages 464-465

B. Student workbook, Chapters 1 & 2 worksheets

Course Title **170111 - Principles of Health Science**

Grade Levels 9-11

Credit Value 1.0

Description Principles of Health Science is an introduction to systems and functions of healthcare careers. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well in teams. The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students explore health career options, and are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. [This course is the first of 3 core courses identified for students to be successful on the Allied Health KOSSA.]

Prerequisites Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II

Unit Title Teamwork

Technical Content

- Understand roles and responsibilities of team members.
- Recognize characteristics of effective teams.
- Recognize methods for building positive team relationships.
- Analyze attributes and attitudes of an effective leader.
- Apply effective techniques for managing team conflict.

National Standards

- 8.11 Understand roles and responsibilities of team members.
- 8.12 Recognize characteristics of effective teams.
- 8.21 Recognize methods for building positive team relationships.
- 8.22 Analyze attributes and attitudes of an effective leader.
- 8.23 Apply effective techniques for managing team conflict.

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.

English/Language Arts Common Core Standards

CC.11-12.SL.1.d Comprehension and Collaboration: Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

CC.9-10.W.1 Text Types and Purposes: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

CC.9-10.W.2.d Text Types and Purposes: Use precise language and domain-specific vocabulary to manage the complexity of the topic.

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 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in the text.

Reading / 9-10 / #6 – Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.

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.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.*

CC.9-12.N.Q.2 Define appropriate quantities for the purpose of descriptive modeling.*

CC.9-12.A.SSE.1 Interpret expressions that represent a quantity in terms of its context.*

CC.9-12.A.REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

KOSSA Standards

EO001 Understand and apply the team concept in providing quality patient care

EO002 Recognize characteristics of effective teams

EP002 Collaborate with others to formulate team objectives

EP005 Exercise leadership skills as appropriate

EP008 Acknowledge conflict and take corrective action

Learning Targets

Healthcare professionals will understand the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality healthcare, and will

Sample Learner Activities - Contact Health Science Consultant for Resources

I. Supplemental Resources, Foundation Standard 8

A. 8.11, pages 17-21

B. 8.12, pages 22-27

C. 8.21, pages 28-36

D. 8.22, pages 37-41

E. 8.21, powerpoint on resource CD

II. Simmers, Diversified Health Occupations (Teacher Resource) Teamwork Activity, pages 472-474

Course Title **170111 - Principles of Health Science**

Grade Levels 9-11

Credit Value 1.0

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Prerequisites Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II

Unit Title **Safety Practices**

Technical Content

- Explain principles of infection control.
- Describe methods of controlling the spread and growth of microorganisms.
- Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.
- Apply principles of body mechanics.
- Apply safety techniques in the work environment.
- Comply with safety signs, symbols, and labels.
- Understand implications of hazardous materials.
- Practice fire safety in a healthcare setting.

National Standards

- 7.11 Explain principles of infection control.
- 7.12 Describe methods of controlling the spread and growth of microorganisms.
- 7.21 Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.
- 7.22 Apply principles of body mechanics.
- 7.31 Apply safety techniques in the work environment.
- 7.41 Comply with safety signs, symbols, and labels.
- 7.42 Understand implications of hazardous materials.
- 7.51 Practice fire safety in a healthcare setting.

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.

English/Language Arts Common Core Standards

CC.11-12.SL.2 Comprehension and Collaboration: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

CC.11-12.L.4.d Vocabulary Acquisition and Use: Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

CC.9-10.W.2.d Text Types and Purposes: Use precise language and domain-specific vocabulary to manage the complexity of the topic.

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 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in 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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

Writing / 9-10 / #2 – Write informative / explanatory texts, including narration of historical events, scientific procedures / experiments, or technical processes.

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.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.*

CC.9-12.N.Q.2 Define appropriate quantities for the purpose of descriptive modeling.*

CC.9-12.A.REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

CC.9-12.S.ID.9 Distinguish between correlation and causation.*

CC.9-12.S.IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.*

CC.9-12.S.CP.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

KOSSA Standards

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

OB002 Analyze methods to control the spread of pathogenic microorganisms

EK002 Manage a personal exposure incident in compliance with OSHA regulations

EK003 Apply principles of body mechanics and ergonomics

EL001 Modify the environment to create safe working conditions

EL002 Demonstrate methods of fire prevention in the health care setting

EM003 Comply with safety signs, symbols, and labels

EM003 Comply with safety signs, symbols, and labels

EM004 Take appropriate action when observing a hazardous material problem

EN001 Interpret the evacuation plan for the health care setting

Learning Targets

Healthcare professionals will understand the existing and potential hazards to clients, co-workers, and self, and will prevent injury or illness through safe work practices and follow health and safety

Sample Learner Activities - Contact Health Science Consultant for Resources

I. Supplemental Resources, Foundation Standard 7

A. 7.11, pages 21-25

B. 7.12, pages 26-29

C. 7.21, pages 30-34

D. 7.22, page 35

E. 7.31 & 7.41, pages 36-42

F. 7.51, pages 43-51

Course Title **170111 - Principles of Health Science**

Grade Levels 9-11

Credit Value 1.0

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Prerequisites Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II

Unit Title **Health Maintenance Practices**

Technical Content

- Apply behaviors that promote health and wellness.
- Describe strategies for the prevention of diseases including health screenings and examinations.
- Discuss complementary (alternative) health practices as they relate to wellness and disease prevention.

National Standards

- 9.11 Apply behaviors that promote health and wellness.
- 9.12 Describe strategies for the prevention of disease including health screenings and examinations.
- 9.13 Discuss complementary (alternative) health practices as they relate to wellness and disease prevention.

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.

English/Language Arts Common Core Standards

CC.9-10.R.1.2 Key Ideas and Details: Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

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.

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 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in 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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

Writing / 9-10 / #2 – Write informative / explanatory texts, including narration of historical events, scientific procedures / experiments, or technical processes.

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.ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.*

CC.9-12.S.ID.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.*

CC.9-12.S.ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).*

CC.9-12.F.IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*

CC.9-12.A.CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*

KOSSA Standards

OG001 Apply behaviors that promote health and wellness

OG002 Advocate available preventive health screening and examinations

OG005 Evaluate the validity of alternative health practices

Learning Targets

Healthcare professionals will understand the fundamentals of wellness and the prevention of disease processes.

Healthcare professionals will practice preventive health behaviors among the clients.

Sample Learner Activities - Contact Health Science Consultant for Resources

Health Maintenance Practices - Supplemental Resources, Unit 9

I. Have students calculate body mass index (BMI) and compare to national standards.

II. Have students keep food log and compare with requirements on mypyramid.gov.

III. Have students do a health history and document healthy lifestyle changes to prevent disease.

IV. Invite a guest speaker to discuss alternative health practices.

Health Maintenance Practices - Supplemental Resources, Unit 9

I. Compare and contrast different health practices as they relate to health and disease.

II. Design a brochure to promote healthy lifestyle in teens.

III. Participate in health fair to promote healthy lifestyles.

IV. Using food labels, have students calculate calories/percent of calories from food, calories/serving size, nutrition requirements.

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
Description	Principles of Health Science is an introduction to systems and functions of healthcare careers. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well in teams. The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students explore health career options, and are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. [This course is the first of 3 core courses identified for students to be successful on the Allied Health KOSSA.]				
Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				
Unit Title	<u>Legal Responsibilities</u>				

Technical Content

- Analyze legal responsibilities.
- Apply procedures for accurate documentation and record keeping.
- Apply standards for Health Insurance Portability and Accountability Act (HIPAA).
- Describe advance directives.
- Summarize the Patient’s Bill of Rights.
- Understand informed consent.
- Explain laws governing harassment, labor and scope of practice.

National Standards

- 5.11 Analyze legal responsibilities.
- 5.12 Apply procedures for accurate documentation and record keeping.
- 5.21 Apply standards for Health Insurance Portability and Accountability Act (HIPAA).
- 5.22 Describe advance directives.
- 5.23 Summarize the Patient's Bill of Rights.
- 5.24 Understand informed consent.
- 5.25 Explain laws governing harassment, labor, and scope of practice.

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.

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.9-10.R.I.9 Integration of Knowledge and Ideas: Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s "Letter From Birmingham Jail"), including how they address related themes and concepts.

CC.9-10.SL.1.b Comprehension and Collaboration: Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.

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 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in 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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

Writing / 9-10 / #2 – Write informative / explanatory texts, including narration of historical events, scientific procedures / experiments, or technical processes.

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.CP.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

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

EF002 Maintain clients rights according to the Patient's Bill of Rights

EF003 Maintain confidentiality

EF005 Apply the doctrine of informed consent

EF008 Apply mandated standards for harassment, labor, and employment laws

Learning Targets

Healthcare professionals will understand the legal responsibilities, limitations, and implications of their actions within the healthcare delivery setting.

Healthcare professionals will perform their duties according to regulations, policies, laws and legislated rights of clients.

Sample Learner Activities - Contact Health Science Consultant for Resources

Legal Responsibilities - Supplemental Resources, Unit 5

I. Role play examples of a HIPPA violation, and an example of when HIPPA was followed.

II. Have students create flash cards with common legal terms.

III. Collaborate with English teacher to debate legal responsibility of healthcare provider to provide medical assistance outside of the work place.

Legal Responsibilities - Supplemental Resources, Unit 5

I. Analyze a patient bill of rights from a local healthcare facility.

II. Have students write a sample policy and procedure.

III. Have students write an advanced directive using a template.

IV. Compare the cost of insurance based on being a smoker vs. being a non-smoker.

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
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Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				

Unit Title **Ethics**

Technical Content

- Differentiate between ethical and legal issues impacting healthcare.
- Recognize ethical issues and their implications related to healthcare.
- Apply procedures for reporting activities and behaviors that affect the health, safety, and welfare of others.
- Understand religious and cultural values as they impact healthcare.
- Demonstrate respectful and empathetic treatment of ALL patients/clients (customer service).

National Standards

- 6.11 Differentiate between ethical and legal issues impacting healthcare.
- 6.12 Recognize ethical issues and their implications related to healthcare.
- 6.21 Apply procedures for reporting activities and behaviors that affect the health, safety, and welfare of others.
- 6.31 Understand religious and cultural values as they impact healthcare.
- 6.32 Demonstrate respectful and empathetic treatment of ALL patients/clients (customer service).

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.9-10.SL.4 Presentation of Knowledge and Ideas: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

CC.9-10.W.2.a Text Types and Purposes: Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

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 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in 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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

Reading / 9-10 / #8 – Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.

Writing / 9-10 / #1 – Write arguments focused on discipline-specific content.

Writing / 9-10 / #2 – Write informative / explanatory texts, including narration of historical events, scientific procedures / experiments, or technical processes.

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 / #7 – Conduct short as well as more sustained research projects to answer a 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.

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

KOSSA Standards

EG001 Differentiate between morality and ethics and the relationship of each to health care outcomes

EG002 Differentiate between ethical and legal issues impacting health care

OH002 Apply safety procedures to protect clients, co-workers and self

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

Learning Targets

Healthcare professionals will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.

Sample Learner Activities - Contact Health Science Consultant for Resources

Ethics - Supplemental Resources, Unit 6

I. Read and examine Hippocratic oath and discuss its relevance to a current medical ethical dilemma.

II. Read article "Etiquette-based Medicine" and discuss personal experiences in healthcare regarding customer service.

III. Role play case study related to ethics.

IV. Research a culture regarding childbirth practices and care for dying patient - students present research in class using some type of multi-media.

Healthcare professionals will perform quality healthcare delivery.

Ethics - Supplemental Resources, Unit 6

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
Description	Principles of Health Science is an introduction to systems and functions of healthcare careers. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well in teams. The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students explore health career options, and are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. [This course is the first of 3 core courses identified for students to be successful on the Allied Health KOSSA.]				
Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				
Unit Title	<u>Academic Foundations and Information Technology Applications</u>				

Technical Content

- Classify the personal traits and attitudes desirable in a member of the healthcare team.
- Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.
- Apply employability skills in healthcare.
- Discuss levels of education, credentialing requirements, and employment trends in healthcare.
- Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development).
- Develop components of a personal portfolio
- Demonstrate the process for obtaining employment

National Standards

- 1.31 Apply mathematical computations related to healthcare procedures (metric and household, conversions and measurements).
- 1.32 Analyze diagrams, charts, graphs, and tables to interpret healthcare results.
- 1.33 Record time using the 24-hour clock.
- 11.11 Utilize current computer hardware and software.
- 11.12 Identify records, files and technology applications common to healthcare.
- 11.13 Enter data into computer files using reference tools to ensure accurately.
- 11.21 Communicate using technology to access and distribute data and other information.
- 11.22 Maintain security and confidentiality of electronic patient information adhering to workplace policies.

KY Core Academic Standards (Big Idea)

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.

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.

English/Language Arts Common Core Standards

CC.9-10.L.4 Vocabulary Acquisition and Use: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.

CC.9-10.L.6 Vocabulary Acquisition and Use: Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression

CC.9-10.W.2 Text Types and Purposes: Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

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 / #5 – Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

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.

KOSSA Standards

AD001 Organize records and files to maintain data as required

AD002 Use communication technology (Fax, E-mail, Internet) to access and distribute data and other information

EA002 Adopt personal appearance and hygiene habits appropriate to the health care environment and industry expectations

EF003 Maintain confidentiality

EF006 Evaluate technological threats to confidentiality

Learning Targets

Healthcare professionals will know the academic subject matter and information technology applications required for proficiency within their area.

Sample Learner Activities - Contact Health Science Consultant for Resources

Academic Foundations and Information Technology - Supplemental Resources, Units 1 & 10

I. Participate in a mock interview.

II. Make a poster presentation of professional dress vs unprofessional dress.

III. Have students develop a resume.

IV. Convert standard time to 24 hour clock.

V. Convert 24 hour clock to standard time.

VI. Research a career and present research using career health display guidelines form HOSA.

VII. Guest speaker from local healthcare facility to discuss confidentiality of electronic patient record/information.

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
Description	Principles of Health Science is an introduction to systems and functions of healthcare careers. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well in teams. The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students explore health career options, and are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. [This course is the first of 3 core courses identified for students to be successful on the Allied Health KOSSA.]				
Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				
Unit Title	<u>Personal Qualities of a Healthcare Professional and Employability Skills</u>				

Technical Content

- Classify the personal traits and attitudes desirable in a member of the healthcare team.
- Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.
- Apply employability skills in healthcare.
- Discuss levels of education, credentialing requirements, and employment trends in healthcare.
- Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development).
- Develop components of a personal portfolio
- Demonstrate the process for obtaining employment

National Standards

- 4.11 Classify the personal traits and attitudes desirable in a member of the healthcare team.
- 4.12 Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.
- 4.21 Apply employability skills in healthcare.
- 4.31 Discuss levels of education, credentialing requirements, and employment trends in healthcare.
- 4.32 Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development.)
- 4.41 Develop components of a personal portfolio.
- 4.42 Demonstrate the process for obtaining employment.

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.9-10.L.2.c Conventions of Standard English: Spell correctly.

CC.9-10.SL.1.a Comprehension and Collaboration: Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

CC.9-10.SL.1.b Comprehension and Collaboration: Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.

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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

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 / #5 – Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
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.*

CC.9-12.S.MD.5b (+) Evaluate and compare strategies on the basis of expected values. For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.*

KOSSA Standards

EA001 Adapt positively to the dynamics of change

EA002 Adopt personal appearance and hygiene habits appropriate to the health care environment and industry expectations

EA003 Practice personal integrity and honesty

EA004 Evaluate work assignments and initiate action with confidence commensurate with own work assignment

EA005 Formulate solutions to problems using critical thinking skills (analyze, synthesize, evaluate) independently and in teams

EA006 Interact appropriately and respectfully with diverse ethnic, age, cultural, religious, and economic groups in various employment and social skills

EA007 Exhibit respectful and empathetic behavior when interacting with peers, superiors, subordinates, and customers in one-on-one and group situations

EA008 Follow attendance policies of the employer or educational institution

EA009 Accept responsibility for own actions

EB001 Communicate in a straightforward, understandable, accurate, and timely manner

EB002 Listen attentively to verbal instruction, requests, and other information to verify accuracy

ED001 Explore a potential health science career path in at least one of the following health care services: diagnostic, therapeutic, informational, or environmental.

ED002 Consider the levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential for a service area

Learning Targets

Healthcare professionals will understand how employability skills enhance their employment opportunities and job satisfaction.

Healthcare professionals will demonstrate key employability skills and will maintain and upgrade skills, as needed.

The student uses verbal and nonverbal communication skills.

Sample Learner Activities - Contact Health Science Consultant for Resources

I. Incorporate HOSA competitive events - job-seeking skills and interviewing skills.

II. Have students write cover letters and resumes.

III. Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4

A. 4.11, directions - pages 11-12, activities - pages 20-29

B. 4.12, page 30

C. 4.21 (powerpoint on resource CD), activities - pages 34-36

D. 4.31 (powerpoint on resource CD), activity - page 40

E. 4/32, pages 41-48

F. 4.41, pages 49-51

G. 4.42, pages 52-56

IV. Simmers, Diversified Health Occupations (Student Workbook), pages 15-20.

Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4

I. Have healthcare professionals (doctors, healthcare supervisors, nurse executives, etc.) talk to students about advancement in careers.

II. Practice interviewing skills by drawing out questions to ask of fellow classmates.

III. Analyze want ads- newspapers and on-line.

Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4

The student implements the leadership skills necessary to function in a democratic society.	Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4
The student identifies professional characteristics, academic preparation and skills necessary for employment as defined by the health science industry.	Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4
The student recognizes the rights and choices of the individual.	Personal Qualities of a Healthcare Professional - Supplemental Resources, Foundation Standard 4

Course Title	170111 - Principles of Health Science	Grade Levels	9-11	Credit Value	1.0
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Prerequisites	Optional - Emergency Procedures, Medical Terminology I, or Medical Terminology II				
Unit Title	<u>Careers in Healthcare</u>				

Technical Content

- The student applies mathematics, science, English language arts, and social studies in health science.
- The student assesses career options and the preparation necessary for employment in the health science industry.
- The student identifies professional characteristics, academic preparation, and skills necessary for employment as defined by the health science industry.
- The student identifies the systems related to health science.

National Standards

- 4.31 Discuss levels of education, credentialing requirements, and employment trends in healthcare.
- 4.32 Compare career within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development).

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.

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.9-10.SL.1 Comprehension and Collaboration: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

CC.9-10.SL.1.c Comprehension and Collaboration: Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

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 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

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 / #5 – Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

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

ED002 Consider the levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential for a service area

ED001 Explore a potential health science career path in at least one of the following health care services: diagnostic, therapeutic, informational, or environmental.

Learning Targets

Sample Learner Activities - Contact Health Science Consultant for Resources

Organize, compile and write ideas into reports and summaries; plan and prepare effective oral presentations; and, describe the impact of health services on the economy.

Employability Skills- Supplemental Resources, Foundation Standard 4

Locate, evaluate and interpret career options and employment information; and recognize the impact of career decisions, including cause and effect of changing employment situations.

Employability Skills- Supplemental Resources, Foundation Standard 4

Identify academic requirements for professional advancement such as certification, licensure, registration, continuing education, and advanced degrees.

Employability Skills- Supplemental Resources, Foundation Standard 4

- I. Have students research a healthcare career, using their individual learning plan (ILP) to determine what schools offer the degree as well as the requirements for the degree.
- II. Compare and contrast certification, licensure and registration as related to healthcare.
- III. Identify local options regarding associate and bachelors degrees and determine cost effectiveness of each program.

Compare health science careers within the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems; and, identify the collaborative role of team members between systems to deliver quality healthcare.

Employability Skills- Supplemental Resources, Foundation Standard 4

Identify technological equipment used in each of the five systems and relate findings to identified societal risk factors; and, recognize and relate the process for reporting equipment or technology malfunctions.

Employability Skills- Supplemental Resources, Foundation Standard 4