

Unit	Lesson	Lesson Objectives
------	--------	-------------------

## Health Science Pathways and Careers

### Studying Health Science

- Describe techniques for studying health science information.
- Differentiate between health science and health care.
- Explain fields of study that are important to health science.

### Evolution of the Health Science Industry

- Compare and contrast modern medical practice with ancient ideas related to health.
- Describe the major developments of healthcare history from ancient times until the present day.
- Describe the recent evolution of the healthcare industry.

### Diagnostic Pathways and Careers

- Describe the characteristics of a diagnostic health science career.
- Identify specialized trainings and certifications common in diagnostic careers.
- Identify the responsibilities of various diagnostic health science careers.

### Therapeutic Pathways and Careers

- Describe the characteristics of a therapeutic health science career.
- Identify specialized trainings and certifications common in therapeutic careers.
- Identify the responsibilities of various therapeutic health science careers.

### Health Informatics Pathways and Careers

- Describe the characteristics of a health informatics health science career.
- Identify specialized trainings and certifications common in health informatics careers.
- Identify the responsibilities of various health informatics health science careers.

### Support Services Pathways and Careers

- Describe the characteristics of a support services health science career.
- Identify specialized trainings and certifications common in biotechnology development and research careers.
- Identify the responsibilities of various support services health science careers.

### Biotechnology Development and Research Pathways and Careers

- Describe the characteristics of biotechnology research and development health science careers.
- Identify specialized trainings and certifications common in biotechnology research and development careers.
- Identify the responsibilities of various biotechnology research and development health science careers.

### Trends and the Future of Health Science

- Analyze current trends in the drive to improve health care and healthcare delivery.
- Describe the job outlook for health science careers.
- Describe the ways technology has influenced health care.
- Explain the impact of technology on healthcare delivery.

Unit	Lesson	Lesson Objectives
------	--------	-------------------

## Pursuing Health Science Careers

### Career Self-Assessment

- Analyze personal goals and career interests.
- Identify ways to find information about health science careers.

### Certification

- Discuss laws which mandate certification requirements for employment in the healthcare industry.
- Explain the role and importance of certifications and licensure in the healthcare profession.
- Identify the government and professional organizations which regulate the credentialing and licensure process.

### Planning for Career Requirements

- Explain the process for acquiring necessary certification, licensure, and registration for a health science career.
- Identify the credentialing processes necessary for healthcare careers, including certification, licensure, and registration.

### Career Portfolio and Resume

- Describe the role of references and work samples.
- Identify documentation necessary for a job search, including career portfolios and resumes.
- Identify the components and traits of a cover letter.
- Identify the components and traits of a professional résumé.

### Job Hunting

- Explain the importance of self representation skills in career fields.
- Identify personal traits or attitudes desirable in a member of the healthcare team.
- Identify ways to find out about job opportunities.
- Interpret job advertisements.

### Professionalism

- Identify personal qualities that contribute to professionalism.
- Describe strategies for managing resources.
- Describe strategies for managing time and tasks.

### Professional Development

- Explain how to retain and advance employment in a rapidly changing workplace.
- Explain the importance of ongoing professional development in the healthcare industry.
- Identify methods of attaining ongoing training in the healthcare industry.

### Career Options

- Examine entrepreneurship as a career planning option.
- Explain the steps necessary to become an entrepreneur in the health science industry.
- Recognize the impact of career decisions.

Unit	Lesson	Lesson Objectives
<b>Workplace Law</b>		
<p>Describe effective strategies for handling sexual harassment and other kinds of harassment in the workplace.</p> <p>Explain government regulations which affect labor and employment.</p> <p>Identify the main antidiscrimination laws and explain their role in protecting workers.</p>		
<b>Ethics and the Law</b>		
<b>Ethics</b>		
<p>Define the concepts of ethics and integrity and explain how they are related.</p> <p>Describe personal, professional, and organizational ethics.</p> <p>Examine current ethical issues related to the healthcare industry.</p> <p>Explain how and why regulations are needed to promote ethical behavior in the health science industry.</p> <p>Explain the purpose of Professional Standards of Care.</p>		
<b>Patient Bill of Rights</b>		
<p>Explain how federal legislation and activity has defined, codified, and protected the rights of patients.</p> <p>Explain the concepts of the Patient's Bill of Rights.</p> <p>Explain the importance of the Patient's Bill of Rights.</p>		
<b>Medical Ethics and Advance Directives</b>		
<p>Explain the conflict between beneficence and autonomy.</p> <p>Explain the importance of legal contracts in healthcare delivery, especially in regards to advance directives.</p> <p>Explain the relationship between the concept of autonomy and the doctrine of informed consent.</p>		
<b>Confidentiality</b>		
<p>Define confidentiality.</p> <p>Define privacy and privileged communication.</p> <p>Explain how the Health Insurance Portability and Accountability Act (HIPAA) helps protect patient confidentiality.</p> <p>Explain the importance of confidentiality in health care.</p>		
<b>Workplace Liability and Malpractice</b>		
<p>Examine the effect of liability on employers and employees in the health science industry.</p> <p>Explain practices that could result in malpractice, liability and/or negligence.</p> <p>Explain the responsibilities of healthcare workers to report illegal or unethical healthcare practices.</p> <p>Recognize the limits of authority and responsibility of healthcare workers.</p>		
<b>Risk Management</b>		
<p>Describe the relationship between incident reporting and quality improvements.</p> <p>Explain the importance of incident reporting protocols and investigations.</p> <p>Explain the role of risk management in healthcare.</p>		

Unit	Lesson	Lesson Objectives
------	--------	-------------------

### Recognizing and Reporting Abuse

- Describe the responsibilities health science workers in reporting domestic violence.
- Explain the responsibilities health science workers have in responding to suspected domestic violence.
- Identify the signs that indicate possible abuse or neglect.

## Healthcare Systems

### Healthcare System Components

- Describe the interdependence of healthcare professions and systems within the healthcare system.
- Explain systems theory.
- Explain the components of a healthcare system.

### Healthcare Facilities

- Differentiate between for-profit, non-profit, and government run healthcare facilities.
- Identify common types of healthcare facilities.

### Health Insurance

- Define health insurance.
- Identify and differentiate between common types of health insurance plans.
- Identify various health insurance plan components.

### Health Care and Society

- Analyze the role of the healthcare industry in public health issues.
- Examine community and social issues related to an health science industry.
- Examine labor issues related to an health science industry.
- Explain how the practice of lobbying affects the healthcare industry.

### Health Care as a Business

- Describe the impact of business on healthcare environments.
- Describe the role of financial responsibility within the health science industry.
- Describe the role of management within a health science industry.
- Describe the role of planning within the health science industry.

### Healthcare Providers and Consumers

- Describe the role of professionals in a variety of healthcare delivery systems.
- Differentiate among the types of medical care delivery systems.
- Identify services provided in a variety of healthcare delivery systems.
- Identify the roles and responsibilities of the consumer within the healthcare system.

Unit	Lesson	Lesson Objectives
<b>Healthcare Trends</b>		
Analyze current trends in healthcare delivery systems.		
Examine the impact of the Internet on the healthcare industry and on the individual consumer.		
Explain how healthcare services impact the economy.		
<b>Responsibility and Quality Control in Health Care</b>		
Examine health, safety, and environmental issues related to a health science industry.		
Explain the rationale for having quality control systems in the healthcare industry.		
List and describe quality control systems and practices common in the healthcare industry.		
<b>Patient Care</b>		
<b>Patient Care Approaches</b>		
Describe ways to provide patient care that is respectful of ethnic, religious, cultural, and personal preferences.		
Explain why it is important for healthcare professionals to be aware of diverse characteristics in patients.		
<b>Patient Communication</b>		
Describe ways in which public relations skills and effective communication with patients can provide customer satisfaction.		
Identify the principles of communication used in establishing relationships between healthcare workers and patients.		
<b>Patient Education</b>		
Describe methods of explaining technical information at levels accessible to a variety of patients.		
Explain the importance of patient/client education in health care.		
Identify the common types of information that a patient or client may be interested in.		
<b>Handling Client Information</b>		
Describe the legal and professional standards for accessing, reporting, and documenting client health information.		
Describe the rationale for policies and procedures for handling personal information.		
Explain the process and importance of establishing patient identification and medical history.		
<b>Medical Records</b>		
Describe the legal implications of medical records.		
Explain the purpose of medical records.		
Identify the components of the medical record.		
<b>Vital Signs</b>		
Define vital signs and explain their purpose.		
Describe what is being measured for each vital sign.		
Explain the proper procedure for monitoring and recording vital signs.		

Unit	Lesson	Lesson Objectives
<b>Body Mechanics and Ergonomics for Patients</b>		
Explain the importance of body mechanics and ergonomics in a healthcare setting.		
Identify and analyze the principles of body mechanics and movements.		
Identify the basic medical exam positions.		
<b>Patient Ergonomics, Safety, and Transport</b>		
Demonstrate procedures for the safe transport and transfer of patients.		
Identify the basic medical exam positions that require ergonomics and patient safety considerations.		
<b>Health and Wellness</b>		
<b>Wellness</b>		
Describe how healthy and unhealthy behaviors affect wellness.		
Describe the importance of prevention.		
Differentiate between controllable and uncontrollable risk factors.		
Identify the fundamentals of wellness.		
<b>Cognitive and Emotional Development</b>		
Describe common cognitive changes that occur from birth to adulthood.		
Describe common emotional changes that occur from birth to adulthood.		
Explain Maslow's hierarchy of human needs.		
Identify the effects of relationships on health and wellness.		
<b>Wellness and Life Changes</b>		
Describe the effects of aging on physical health and wellness.		
Examine various concepts of dealing with dying, death, and grief.		
<b>Effects of Illness and Drug Abuse</b>		
Discuss the adverse effects of the use of alcohol, illegal drugs, steroids and other high risk behaviors on the human body.		
Identify psychological reactions to illness including defense mechanisms.		
<b>Disease Prevention and Wellness</b>		
Describe the elements of a wellness and stress control plan that can be used in personal and professional life.		
Identify fundamentals disease prevention strategies.		
<b>Diet and Wellness</b>		
Describe dietary guidelines and explain basic dietary management.		
Explain how the body achieves nutrition through the digestion and metabolism of food.		
Identify the nutrients necessary for good achieving health and wellness.		

Unit	Lesson	Lesson Objectives
		<p><b>Food Safety and Handling</b></p> <ul style="list-style-type: none"> <li>Describe food safety laws and regulations in the US.</li> <li>Describe international food safety practices.</li> <li>Identify principles of safe food handling.</li> </ul> <p><b>Diversity in Health Care</b></p> <ul style="list-style-type: none"> <li>Define holistic care.</li> <li>Describe the relationship between culture, ethnicity, and race.</li> <li>Explain the importance of understanding cultural diversity in health care.</li> <li>Identify various factors that interfere with the acceptance of cultural diversity.</li> </ul> <p><b>Diverse Health Care Beliefs and Practices</b></p> <ul style="list-style-type: none"> <li>Compare and contrast various complementary and alternative health practices.</li> <li>Identify and evaluate cultural and religious differences in healthcare delivery concepts, methods, and techniques.</li> <li>Identify diverse beliefs and describe how they influence healthcare.</li> <li>Identify various factors that interfere with the acceptance of cultural diversity.</li> </ul>
		<p><b>Safety in the Workplace</b></p> <p><b>Healthcare Laws and Regulations</b></p> <ul style="list-style-type: none"> <li>Differentiate between federal and state laws and regulations governing health care</li> <li>Identify professional agencies and organizations in the healthcare field and their roles</li> <li>Identify the government institutions that affect the healthcare industry</li> </ul> <p><b>Healthcare Safety Regulatory Agencies</b></p> <ul style="list-style-type: none"> <li>Discuss the Joint Commission on Accreditation of Health Organization's role in setting safety standards for patients</li> <li>Explain the role of each of the governing regulatory agencies on the practice of health care</li> <li>Explain the scope of the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA)</li> <li>Identify various governing regulatory agencies</li> </ul> <p><b>Hazards in Health Care</b></p> <ul style="list-style-type: none"> <li>Describe safety procedures and how they serve to keep healthcare environments safe</li> <li>Describe the Occupational Safety and Health Association (OSHA) and Centers for Disease Control (CDC) policies and procedures for handling and disposing of infectious and hazardous materials</li> <li>Identify common hazards and hazardous materials found in healthcare settings</li> </ul> <p><b>Safety Policies and Procedures</b></p> <ul style="list-style-type: none"> <li>Define and differentiate between policies, procedures, and protocols</li> <li>Explain the importance of complying with institutional policies and procedures in order to maintain a safe and clean work environment</li> <li>Identify common safety practices in all aspects of the health science industry</li> <li>Justify the rationale behind protocols and safety procedures</li> </ul>

Unit	Lesson	Lesson Objectives
------	--------	-------------------

### **Maintaining a Safe Work Environment**

- Analyze the role and the responsibilities of the healthcare provider (student) in the classroom, laboratory, and various workplace settings in an emergency situation
- Explain the importance of a safe work environment
- Identify and practice security procedures for medical supplies and equipment
- Identify safety precautions and practices that can help maintain safety in healthcare environments
- Recognize Materials Safety Data Sheets (MSDS) and comply with safety signs, symbols and labels

### **Disaster Planning**

- Explain proper disaster preparedness procedures for a variety of emergency situations
- Identify items found in a basic emergency kit
- Identify the components of disaster planning

### **Managing Emergency Scenarios**

- Describe principles of emergency management
- Explain the components of fire safety and dealing with fires
- Identify the four stages of emergency management

### **Reducing Medical Errors**

- Describe methods to prevent medical errors in the various healthcare settings
- Explain the importance of reducing and preventing medical errors in various healthcare settings
- Identify methods to reduce medical errors in the various healthcare settings

## **First Aid**

### **Infection Control and Asepsis**

- Differentiate between cleaning, disinfecting, and sterilizing
- Evaluate the need for asepsis in the healthcare environment
- Explain the principles of infection control and asepsis
- Explain the steps and purpose of medical aseptic techniques

### **Chain of Infection**

- Describe the purpose for and identify various types of isolation techniques
- Explain how to destroy or control the spread of infections
- Explain the chain of transmission of infection
- Identify common hospital-acquired infections



Unit	Lesson	Lesson Objectives
		<p><b>First Aid and Emergency Response</b></p> <ul style="list-style-type: none"> <li>Describe legal parameters relating to the administration of emergency care</li> <li>Explain how the use of personal protective equipment can help a first responder apply life support techniques safely</li> <li>Identify basic life support equipment</li> <li>Identify basic life support techniques</li> <li>Identify personal protective equipment</li> </ul> <p><b>Blood-Borne Diseases</b></p> <ul style="list-style-type: none"> <li>Demonstrate knowledge of the legal aspects of AIDS, including testing</li> <li>Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood-borne pathogens by identifying "at-risk" behaviors</li> <li>Explain the infection control techniques that can help prevent the spread of diseases caused by blood-borne pathogens</li> <li>Identify community resources and services available to the individuals with diseases caused by blood-borne pathogens</li> </ul> <p><b>Emergency Care: Falls and Poisoning</b></p> <ul style="list-style-type: none"> <li>Describe the causes, symptoms, and treatments of medical emergencies related to falls</li> <li>Describe the causes, symptoms, and treatments of medical emergencies related to poison and adverse drug reactions</li> <li>Explain how to respond to falls and poisoning cases</li> </ul> <p><b>Emergency Care: Trauma and Shock</b></p> <ul style="list-style-type: none"> <li>Describe the causes, symptoms, and treatments of medical emergencies related to shock</li> <li>Describe the causes, symptoms, and treatments of medical emergencies related to trauma</li> <li>Explain why burns are considered a type of trauma</li> </ul> <p><b>Emergency Care: Seizures and Strokes</b></p> <ul style="list-style-type: none"> <li>Describe the causes, symptoms, and treatments of medical emergencies related to seizures</li> <li>Describe the causes, symptoms, and treatments of medical emergencies related to strokes.</li> <li>Explain how to respond to seizures and strokes</li> </ul> <p><b>Incident Recordkeeping in Health Care</b></p> <ul style="list-style-type: none"> <li>Describe recordkeeping activities in health care</li> <li>Explain how recordkeeping activities can help prevent and reduce incidents in the workplace</li> </ul>
		<p><b>Communication, Leadership, and Teamwork</b></p> <p><b>Communication Fundamentals</b></p> <ul style="list-style-type: none"> <li>Define and differentiate between verbal and non-verbal communication</li> <li>Define communication, and analyze the process of communication</li> <li>Distinguish between effective and ineffective communication</li> <li>Explain the appropriate response to verbal and non-verbal cues</li> </ul>

Unit	Lesson	Lesson Objectives
		<p><b>Diverse Communication Practices</b></p> <ul style="list-style-type: none"> <li>Explain how to adapt communication skills for a diverse audience</li> <li>Identify effective communications skills necessary for responding to the needs of individuals in a diverse society</li> <li>Identify the consequences of poor communication</li> </ul> <p><b>Overcoming Communication Barriers</b></p> <ul style="list-style-type: none"> <li>Explain how communication barriers can affect the patient's ability and motivation to communicate</li> <li>Explain how communication barriers can be overcome</li> <li>Identify effective methods of communicating with patients who have physical, behavioral, or emotional impairments</li> <li>Identify the types of barriers which may interfere with effective communication</li> </ul> <p><b>Leadership</b></p> <ul style="list-style-type: none"> <li>Define leadership</li> <li>Describe the skills and responsibilities of a leader</li> <li>Explain how leaders who use mentoring can impact teams</li> </ul> <p><b>Teamwork</b></p> <ul style="list-style-type: none"> <li>Explain basic concepts of teamwork, and analyze different types of teams</li> <li>Explain the necessity of teamwork in providing quality healthcare services</li> <li>Identify the collaborative role of team members between systems to deliver quality health care</li> <li>Identify the common roles and responsibilities of healthcare team members</li> </ul> <p><b>Conflict Resolution</b></p> <ul style="list-style-type: none"> <li>Define conflict resolution</li> <li>Employ critical thinking and interpersonal skills to resolve conflicts</li> <li>Identify effective techniques for resolving conflict</li> </ul> <p><b>Meetings</b></p> <ul style="list-style-type: none"> <li>Demonstrate the ability to effectively conduct meetings</li> <li>Demonstrate the ability to effectively participate in meetings</li> <li>Explain how meetings can be effective tools to accomplish goals</li> </ul> <p><b>Student Organizations</b></p> <ul style="list-style-type: none"> <li>Explain how student organizations help foster leadership</li> <li>Explain the purpose of Career and Technical Student Organizations.</li> <li>Identify the benefits of belonging to Health Occupations Students of America (HOSA)</li> <li>Identify the purposes and goals of a student organization</li> </ul>

Unit	Lesson	Lesson Objectives
------	--------	-------------------

### Health Science Career Skills

#### Listening and Speaking

- Identify effective speaking and listening skills.
- Organize and develop ideas into accurate verbal reports.
- Plan and prepare effective oral presentations.

#### Reading

- Define plagiarism and learn how to avoid it through proper documentation skills
- Demonstrate effective reading and writing skills
- Identify effective reading and writing skills
- Locate, organize and reference written information from various sources
- Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace

#### Math Skills

- Convert units between systems of measurement, including metric and traditional units, and regular time to 24-hour time
- Demonstrate knowledge of common arithmetic operations in health care
- Make estimates and approximations and judge the reasonableness of the result

#### Calculating Medication Dosages

- Identify the main systems of measurement for medication
- Perform simple calculations related to measuring and converting doses of medication

#### Science Skills

- Collect and evaluate data, and develop scientific recommendations based on findings
- Discuss the role of creativity in constructing scientific questions, carrying out methods, and developing explanations
- Distinguish between subjective and objective information
- Formulate scientifically investigable questions and construct investigations

#### Observation and Reporting Skills

- Develop basic observational skills and related documentation strategies in written and oral form
- Identify the characteristics of good observational and reporting skills
- Report relevant information in order of occurrence

#### Reasoning Skills

- Demonstrate ability to evaluate and draw conclusions
- Explain the theory of root-cause analysis as used in health science
- Organize and communicate the results obtained by observation and experimentation

Unit	Lesson	Lesson Objectives
------	--------	-------------------

**Using Data with Tables, Charts, and Graphs**

- Apply data from tables, charts and graphs to provide solutions to health-related problems
- Create tables, charts and graphs from data
- Define tables, charts and graphs
- Interpret tables, charts and graphs from data

**Technology in Health Science**

**Using Technology in Health Care**

- Define terms and demonstrate basic computer skills
- Describe the uses of computers in health care
- Employ collaborative/groupware applications to facilitate group work
- Use personal information management (PIM) applications to increase workplace efficiency

**Information Technology**

- Define information technology and informatics
- Explain necessary information technology skills
- Identify healthcare technology equipment used in diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems, and relate findings to identified societal risk factors

**Use and Safety of the Internet**

- Demonstrate an understanding of Internet use and security issues
- Demonstrate and differentiate between appropriate and inappropriate use of telecommunications technology
- Identify Internet safety issues and procedures for complying with acceptable use standards

**Technical Skills**

- Examine principles of technology that underlie the health and medical science industry
- Identify the technical skills required of workers in the health and medical science industry
- Interpret technical information related to the health science industry

**Using Medical Equipment**

- Demonstrate the safe use of medical equipment
- Explain and summarize the process for reporting equipment or technology malfunctions
- Explain radiographic safety
- Identify various types of medical equipment

**Biotechnology**

- Define biotechnology, and explain biotechnological concepts
- Describe the impact of biotechnology on preventive health care
- Describe the role biotechnology plays in medical forensics used in criminal investigations
- Discuss the ethics of biotechnology and other technological advances

Unit	Lesson	Lesson Objectives
------	--------	-------------------

**Specimen Preparation and Handling**

Analyze the process for examining cells to determine quantity and/or to look for abnormal cells in blood and other body fluids and tissues

Analyze the process for studying body fluids and cells for bacteria, parasites, and other microorganisms

Describe specimen preparation and handling

**Laboratory Procedure**

Explain how to assess lab findings using automated equipment and computerized instruments, microscopes, cell counters, and/or other sophisticated laboratory equipment

Explain how to document results of laboratory findings

Explain how to relay lab results to physicians