



# Burlington County Institute of Technology

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Medford Campus

Westampton Campus

## Career and Technical Programs

Career Cluster: *Health Science*

Program Name: *Medical/Clinical Assistant*

Program Title: *Allied Health*

CIP Code: *510801*

Board Approval Date: August, 2023



# Program of Study

## → Grade 9

- ◆ Introduction to Allied Health
- ◆ Dynamics of Healthcare

## → Grade 10

- ◆ Anatomy and Physiology I
- ◆ Medical Terminology
- ◆ Anatomy and Physiology II

## → Grade 11

- ◆ EKG
- ◆ Phlebotomy
- ◆ Fundamentals of Patient Care

## → Grade 12

- ◆ Administrative Assisting
- ◆ Patient Care Coordination and Education
- ◆ Communication and Customer Service
- ◆ Pharmacology and Medical Math



## → Program Descriptor

- ◆ Allied Health is a multi-level program designed for students interested in pursuing careers in health care. These areas are not limited to nursing and medicine, rather multiple opportunities which include; pharmacy, medical laboratory science, occupational therapy, speech pathology, radiology, ultrasound, respiratory therapy, nuclear medicine, and other adjunct medical careers. The course includes extensive knowledge both in theory and practical application about the human body in relation to anatomy and physiology, medical terminology, and care for patients in the healthcare setting.

## → Program Outcome

- ◆ Graduates of the Allied Health program will possess the skills and competencies required for entry level employment, as well as a foundation for pursuing post-secondary education. During the course, the students are required to take the Personal Care Technician (PCT) exam and will be eligible upon graduation to take the Certified Medical Assisting (CMA) exam. In addition, students can receive certification in cardiopulmonary resuscitation (CPR), automatic external defibrillator (AED), and first aid.

## → Work Based Learning Opportunities

- ◆ Job Shadow:
  - Blood Drives at BCIT:
    - Job-shadowing - students in HOSA have observed nurses during the blood drive donation activities within the school.
    - Community service- students volunteered for 3 hours to assist during the blood drive donation events (sign up for donations, registration, canteen and as floaters).
    - Community service - HOSA students check for informed consent permission forms for students age 16.
- ◆ Simulated Workplace:
  - Students assist school nurses in health screenings for the student body.
- ◆ Non-Hazardous Career Preparation:



- Students in the Allied Health Occupations class have been working in the dietary departments in long term care. In order to work in this department, there are state mandated in-services for the following areas that need to be completed: patient's rights, prevention of abuse and neglect, infection control, prevention of blood-borne pathogens, corporate compliance, fire safety, HIPAA, OSHA standards, dementia, customer service, food safety and the dietary needs of the elderly.
- Student employment in the school nurse office as assistant to the nurse.
- ◆ Career Exploration:
  - Volunteering: Students will volunteer with various hospitals such as Virtua or Deborah, to provide companionship and support to patients.

#### → Industry Valued Credentials

- ◆ Patient Care Technician
- ◆ Medical Assistant: CCMA
- ◆ OSHA 10 Healthcare
- ◆ American Heart Association - BLS CPR, AED and First Aid

#### → Post-Secondary Articulations

- ◆ Stockton University
  - Introduction to Health Sciences (HLTH 1101)
  - Medical Terminology (HLTH 1241)
- ◆ Pennsylvania College of Technology
  - Health and Wellness (FITELC)
  - Medical Terminology I & II (MTR100)
  - PCT/CCMA and certification: (AHSELC)



# Course Descriptions

## 1. Grade 9

- a. *Introduction to Allied Health:* This course introduces students to a variety of topics related to the healthcare field. Students will explore health-related disciplines, and the academic pathway for each profession. They will be able to *Describe the major health care organizations and agencies and their role in the healthcare delivery system.* Students will learn about several cultural groups, including belief systems, communication styles and the role of the family. Professional behavior and essential qualities for health care professionals will also be addressed.
- b. *Dynamics of Healthcare:* This course provides a comprehensive orientation to health care services and their delivery. It presents an interdisciplinary perspective, focusing on process skills such as critical thinking, ethical reasoning, effective communication, and ways to continue independent learning throughout life. The course demonstrates how all health care providers acquire professional competence in dealing with the issues and challenges they face as well as the role they play as informed consumers.

## 2. Grade 10

- a. *Anatomy and Physiology I & II:* Anatomy and Physiology entail exploring the intricacies of the human body's structure and functions. This course adopts a systematic approach, progressing through the major body systems in a well-organized curriculum. Its purpose is to provide students with a comprehensive understanding of human anatomical structures and a detailed examination of physiological principles. Through this selective overview, students will gain valuable insights into the remarkable complexities of the human body.
- b. *Medical Terminology:* Medical Terminology is the study of words that pertain to body systems, anatomy, physiology, medical processes and procedures and a variety of diseases. It provides specialized language for the health care team, enabling health care workers to communicate in an accurate, articulate and concise manner. This course is designed to give the students a comprehensive knowledge of word



construction, definition and use of terms related to all areas of medical science. The course includes, but is not limited to, terms related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records and claim forms.

### 3. Grade 11

- a. *EKG*: This course provides an overview of the anatomy and physiology of the heart. It explores normal electrical conduction as well as common variations of the cardiac cycle. Students will master the skill of obtaining a 3, 5 and 12 lead ECG as well as application and management of a Holter monitoring device and emergency uses for an AED.
- b. *Phlebotomy*: This course is designed to train students to perform duties which include blood draw (venous and dermal), storing blood and blood components, and basic processing. Students will learn patient safety, law and ethics of phlebotomy, critical policies and procedures including universal precautions, infection control, OSHA and CLIA guidelines. Students will demonstrate knowledge and apply skills in using medical tools and equipment in the skills lab.
- c. *Fundamentals of Patient Care*: This class will prepare you to work as an entry-level patient care technician (PCT). You will learn the skills related to bedside care and vital healthcare procedures. Skills include bathing, dressing, restraints, body mechanics, oxygen therapy, respiratory treatments, post mortem care, care of colostomies and foley catheters, Intake and Output and safety procedures.

### 4. Grade 12

- a. *Administrative Assistant*: In this course, students will be introduced to a range of office responsibilities. They will develop skills in file organization, meeting and appointment scheduling, phone handling, email communication, office supplies management, database entry, and the handling of insurance claims, which includes ICD coding. This comprehensive training will equip students with the necessary knowledge and expertise to excel in various office tasks efficiently.
- b. *Patient care coordination and education*: This course equips students with essential skills related to patient care management. They will learn to effectively track and document patient care, supporting healthcare providers by researching and providing information on community resources for both clinical and non-clinical services. Students will gain the ability to coordinate with healthcare providers and community-based organizations to ensure seamless continuity of care. They will play a pivotal role in promoting patient compliance, facilitating processes such as continuity of care, follow-ups, and medication adherence to enhance health outcomes. Moreover, students will be trained in team-based



patient care, working within patient-centered medical home (PCMH) and accountable care organization (ACO) settings. They will actively participate in patient transition of care, ensuring smooth transfers between different healthcare phases. The course emphasizes the importance of patient education via telehealth/virtual visit systems and processes, as well as providing valuable insights to patients on preventing communicable diseases. Additionally, students will be adept in effectively utilizing health information technology to enhance their patient care practices. Finally, communication and motivational interviewing techniques will be developed, empowering students to guide and support patient behaviors in a compassionate and effective manner.

- c. *Communication and Customer Service*: In this course, students will begin to recognize the diversity of patient cultures and backgrounds when providing care. They will recognize stereotypes and biases and interact appropriately with patients, colleagues, and others. Moreover, they will learn to modify verbal and nonverbal communication for diverse audiences, clarifying and relaying communications between patients and providers. Students will also gain the skills to communicate on the telephone with patients, caregivers, providers, and third-party payers using HIPAA guidelines. Additionally, they will be prepared to handle challenging or difficult customer service occurrences and utilize conflict management and complaint resolution techniques to improve patient satisfaction. The course will cover communication styles appropriate for oral, telephone, email, and text communications, as well as nonverbal cues for in-person and telehealth/virtual communication. Students will be trained in interviewing and questioning techniques, including screening questions, open-ended, closed-ended, and probing questions, while also developing active listening techniques. They will also learn proper telephone and email etiquette and how to construct a business letter in various formats.
- d. *Pharmacology and Medical Mathematics*: This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories and a review of basic mathematical calculations and will instruct the learner on how to convert equivalents from one system to another and accurately mix and measure drugs. Emphasis will be placed on how these techniques are used in the administration of medications for patient use.



# Curriculum Maps

Course: Safety

Unit: OSHA 10

Length: 1 Week

## Standards

- 9.3.12.AG-FD.1 Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.
- 9.3.12.AC-CST.5 Apply practices and procedures required to maintain jobsite safety.
- 9.3.12.AR.2 Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.
- 9.3.12.ED.4 Evaluate and manage risks to safety, health and the environment in education and training settings.
- 9.3.HT-RFB.2 Demonstrate safety and sanitation procedures in food and beverage service facilities.
- 9.3.HU-ED.5 Evaluate safety and sanitation procedures associated with the early childhood education environment to assure compliance and prevent potential hazards.
- 9.3.LW.4 Conduct law, public safety, corrections and security work tasks in accordance with employee and employer rights, obligations and responsibilities, including occupational safety and health requirements.
- 9.3.LW-ENF.8 Explain the appropriate techniques for managing crisis situations in order to maintain public safety.
- 9.3.MN.3 Comply with federal, state and local regulations to ensure worker safety and health and environmental work practices.
- 9.3.MN-HSE.3 Demonstrates a safety inspection process to assure a healthy and safe manufacturing environment.
- 9.3.MN-HSE.5 Evaluate continuous improvement protocols and techniques in health, safety and/or environmental practices.
- 9.3.12.TD.5 Describe transportation, distribution and logistics employee rights and responsibilities and employers' obligations concerning occupational safety and health.





- 9.3.12.TD-HSE.1 Describe the health, safety and environmental rules and regulations in transportation, distribution and logistics workplaces.
- 9.3.12.TD-OPS.3 Comply with policies, laws and regulations in order to maintain safety, security and health and mitigate the economic and environmental risk of transportation operations.

### Essential Question(s)

- Why is it important to practice safety?
- What do safe practices look like in my industry?
- How can I keep myself and others safe?

### Content

- Walking working surfaces
- Emergency action plans
- Fire protection
- Electrocution hazards
- Personal protective equipment
- Hazard communication
- Materials handling, storage, use and disposal.

### Skills

- Explain why OSHA is important to workers.
- Explain workers rights under OSHA
- Discuss employer responsibilities under OSHA.
- Discuss the use of OSHA standards.
- Explain how OSHA inspections are conducted.
- Utilize helpful worker safety and health resources.
- Identify hazards in the workplace associated with walking and working surfaces.



- Identify best practices for eliminating or controlling hazards associated with walking and working surfaces in the workplace.
- Recognize employer requirements to protect workers from walking and working surface hazards.
- Recognize benefits of an Emergency Action Plan.
- Identify elements of the Fire Protection Plan.
- Identify conditions under which evacuation actions may be necessary in an emergency situation.
- Identify conditions under which shelter-in-place may be necessary in an emergency situation.
- Identify characteristics of an effective emergency escape route.
- Recognize the five types of fire extinguishers, including the types of fires they can extinguish.
- Review requirements for proper maintenance of portable fire extinguishers.
- Identify major electrical hazards.
- Describe types of electrical hazards.
- Describe electrical protection methods.
- Recognize employer requirements to protect workers from electrical hazards.
- Recall employer responsibilities toward affected employees regarding PPE.
- Identify when face and head protection should be used.
- Recall which types of hand and foot protection should be used in a specific situation.
- Recognize the differences between respirator types.
- Identify the differences between full-body protection levels.
- Identify the employer's responsibilities under the HCS, including training requirements.
- Identify components of a Hazard Communication program.
- Describe requirements of the different types of Hazard Communication labels.
- Locate pertinent information about chemicals on labels, including other forms of hazard communication, to ensure "right to understanding" provisions of GHS requirements.
- Identify types of material handling equipment.
- Describe hazards associated with material handling activities (e.g., storage, use, and disposal).
- Identify methods to prevent hazards associated with material handling equipment.
- Recognize employer requirements to protect workers from material handling hazards
- Identify the main causes of machinery accidents.



- Recognize basic machinery parts that expose workers to hazards.
- Recognize workplace situations involving machinery that requires guarding.
- Identify the requirements for safeguards.
- Identify types of machine guards including types of devices used to safeguard machines.
- Identify strategies to control chemical hazards.
- Identify strategies to control biological hazards.
- Identify strategies to control physical hazards.
- Identify strategies to control ergonomic hazards.
- Identify OSHA requirements pertaining to bloodborne pathogens.
- List the potential routes of exposure from bloodborne pathogens.
- Identify the risks associated with Human Immunodeficiency Virus (HIV), Hepatitis B, and Hepatitis C Virus.
- Identify methods of preventing transmission of bloodborne pathogens & managing occupational exposures.
- Restate methods of the safe disposal of sharps.
- Recount steps which should be taken in the event of an exposure to a potential bloodborne pathogen.
- Recognize risk factors associated with work-related musculoskeletal disorders (MSD)s.
- Identify good posture.
- Describe safe lifting techniques.
- Identify ergonomic control methods for eliminating/reducing work-related MSDs.
- Identify the number one cause of death for U.S. teens.
- List eight risk factors for young drivers.
- Identify the biggest risk factor for young drivers.
- Define distracted driving.
- Provide examples and/or causes of distracted driving.
- Identify the biggest risk factor for distracted driving
- Discuss the risk of having other young passengers in the car.
- List some actions employers should take to keep employees safe while driving.
- List some actions employees can take to safely drive on the job.
- Define the term violence.
- Recall who is at risk for encountering workplace violence.



- Describe workplace violence prevention strategies.
- Identify how to StartSafe and StaySafe to prevent or lessen workplace violence.
- Recognize the costs of workplace accidents.
- Recognize the benefits of implementing an effective safety and health program.
- Describe the elements of an effective safety and health program.
- Identify three methods to prevent workplace hazards.

### Assessments

- OSHA 10 Assessment and Certificate

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Course: CTE

Unit: Career Awareness

Length: Woven Throughout

### Standards

- 9.2.12.CAP.1: Analyze unemployment rates for workers with different levels of education and how the economic, social, and political conditions of a time period are affected by a recession.
- 9.2.12.CAP.2: Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.
- 9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.
- 9.2.12.CAP.4: Evaluate different careers and develop various plans (e.g., costs of public, private, training schools) and timetables for achieving them, including educational/training requirements, costs, loans, and debt repayment.
- 9.2.12.CAP.5: Assess and modify a personal plan to support current interests and postsecondary plans. •



- 9.2.12.CAP.6: Identify transferable skills in career choices and design alternative career plans based on those skills.
- 9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- 9.2.12.CAP.8: Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
- 9.2.12.CAP.9: Locate information on working papers, what is required to obtain them, and who must sign them.
- 9.2.12.CAP.10: Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans)
- 9.2.12.CAP.11: Demonstrate an understanding of Free Application for Federal Student Aid (FAFSA) requirements to apply for postsecondary education
- 9.2.12.CAP.12: Explain how compulsory government programs (e.g., Social Security, Medicare) provide insurance against some loss of income and benefits to eligible recipients.
- 9.2.12.CAP.13: Analyze how the economic, social, and political conditions of a time period can affect the labor market.
- 9.2.12.CAP.14: Analyze and critique various sources of income and available resources (e.g., financial assets, property, and transfer payments) and how they may substitute for earned income
- 9.2.12.CAP.15: Demonstrate how exemptions, deductions, and deferred income (e.g., retirement or medical) can reduce taxable income.
- 9.2.12.CAP.16: Explain why taxes are withheld from income and the relationship of federal, state, and local taxes (e.g., property, income, excise, and sales) and how the money collected is used by local, county, state, and federal governments. •
- 9.2.12.CAP.17: Analyze the impact of the collective bargaining process on benefits, income, and fair labor practice. •
- 9.2.12.CAP.18: Differentiate between taxable and nontaxable income from various forms of employment (e.g., cash business, tips, tax filing and withholding). •



- 9.2.12.CAP.19: Explain the purpose of payroll deductions and why fees for various benefits (e.g., medical benefits) are taken out of pay, including the cost of employee benefits to employers and self-employment income.
- 9.2.12.CAP.20: Analyze a Federal and State Income Tax Return
- 9.2.12.CAP.21: Explain low-cost and low-risk ways to start a business.
- 9.2.12.CAP.22: Compare risk and reward potential and use the comparison to decide whether starting a business is feasible.
- 9.2.12.CAP.23: Identify different ways to obtain capital for starting a business

### Essential Question(s)

- How does one prepare for a career?
- How does one improve marketability?
- Why is career planning important?
- What are the risks in starting a business?

### Content

- There are strategies to improve one's professional value and marketability.
- Career planning requires purposeful planning based on research, self-knowledge, and informed choices.
- An individual's income and benefit needs and financial plan can change over time.
- Securing an income involve an understanding of the costs and time in preparing for a career field, interview and negotiation skills, job searches, resume development, prior experience, and vesting and retirement plans
- Understanding income involves an analysis of payroll taxes, deductions and earned benefits.
- There are ways to assess a business's feasibility and risk and to align it with an individual's financial goals

### Skills

- Act as a responsible and contributing community member and employee.
- Attend to financial well-being.
- Consider the environmental, social and economic impacts of decisions.



- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Model integrity, ethical leadership and effective management.
- Plan education and career paths aligned to personal goals.
- Use technology to enhance productivity, increase collaboration and communicate effectively.
- Work productively in teams while using cultural/global competence.

### Assessments

- Career Research Project
- Resume/Cover Letter
- Career Portfolio

Course: Introduction to Allied Health

Length: Semester

### Standards

- 9.2.12.CAP.1: Analyze unemployment rates for workers with different levels of education and how the economic, social, and political conditions of a time period are affected by a recession.
- 9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- 9.2.12.CAP.8: Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.2 Explain the healthcare workers' role within their department, their organization and the



overall healthcare system

- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.

### Essential Question(s)

- What is my role in the healthcare team?
- What is the chain of command?

### Content

- Healthcare Careers and Levels of Education
- History of Healthcare
- Healthcare Systems - As per Healthy People 2030, This content includes the various settings and systems within healthcare.
- Personal and Professional Qualities of a Healthcare Worker
- Cultural Diversity - As per Healthy People 2030, This content includes various health behaviors and the impact on different developmental stages and various populations of people. Social and economic impact on health are also discussed.
- Growth and Development - As per Healthy People 2030, This content includes various health behaviors and the impact on different developmental stages and various populations of people.

### Skills

- Identify a variety of members of the healthcare team





- Understand educational requirements for each member of the team
- Knowledge of the history of healthcare
- Identify behaviors and characteristics of a professional.

## Assessments

- Healthcare history project - Students will be assigned an influential person in healthcare history. Students will research the assigned person and create a project. Students will present to fellow classmates the achievements of their historical person.
- Exam

Course: Dynamics

Length: Semester

## Standards

- 9.3.12.AR.2 Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.
- 9.3.HL.3 Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- 9.3.HL-HI.2 Describe the content and diverse uses of health information.
- 9.3.HL-HI.3 Demonstrate the use of systems used to capture, retrieve and maintain confidential health



- information from internal and external sources.
- 9.3.HL-SUP.3 Follow established internal and external guidelines in order to provide high-quality, effective support services in the healthcare facility.
- 9.3.HL-SUP.4 Maximize available resources for proper care and use of healthcare equipment and materials.
- 9.3.HL-SUP.5 Implement healthcare facility standards in order to maintain high-quality healthcare facilities.
- 9.3.HL-THR.1 Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.
- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.
- 9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
- 9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).

### Essential Question(s)

- How does a medical assistant create a safe environment for the patient, coworkers and themselves?
- What are the steps to infection prevention and control?
- How does a medical assistant communicate effectively with the patients, families and coworkers?
- Why is it important to follow the policies and procedures, legal and regulatory guidelines within the healthcare field?
- How does the medical assistant follow standards of care and scope of practice?
- What are the proper uses of healthcare equipment and materials?
- What are the different types of diagnostic procedures and laboratory tests and the uses?
- What are the steps to critical thinking and problem solving strategies?

### Content



- Identify and use safety equipment
- Infection prevention and control practices
- Therapeutic Communication Techniques
- Identify and perform evidence - based policies and procedures
- Identify different types of diagnostic procedures and laboratory tests
- Uses of the Electronic Health Record
- Identifying and implementing patients' care plans and the healthcare provider's plan of care

### Skills

- Proper use of safety equipment (PPE, medical equipment and assistive devices)
- Infection Prevention and Control Interventions
- Demonstrate communication and documentation methods
- Follow and perform clinical based policies and procedures
- Understand the different types of diagnostic procedures and laboratory tests
- Navigate and use an electronic health record
- Identify the interventions, medications and treatments in patients' care plan and plan of care

### Assessments

- Demonstration of proper use of safety equipment
  - Demonstrate the correct infection prevention and control procedures (including healthcare acquired infections as per Healthy People 2030)
  - Communicate effectively with other students through medical history interviews and complete medical documentation
  - Complete clinical based procedures
  - Demonstrate understanding of the different types of diagnostic procedures and laboratory tests
  - Create a medical record
  - Create a care plan and documentation
  - Exam
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Course: Anatomy and Physiology I

Length: Semester

### Standards

- HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis technology research and development of products.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-BRD.2 Apply the fundamentals of biochemistry, cell biology, genetics, mathematical concepts, microbiology, molecular biology, organic chemistry and statistics to conduct effective biotechnology research and development of products.

### Essential Question(s)

- What are the descriptive, anatomical, physiological, and directional terms for the human body and its organization?
- What are the major components of living things according to structure and function?

### Content

- Basic structure of the Human Body



- Body Planes, Directions and Cavities
- The Skeletal System
- The Muscular System
- The Cardiovascular System
- The Lymphatic System
- As per Healthy People 2030, this content will also include Heart disease and stroke, Arthritis, chronic pain, osteoporosis, infectious disease, effects of being overweight and obesity, blood disorders, cancer.

### Skills

- Describe the structure and function of all systems in the human body
- Understand the pathophysiology of various disorders and diseases.

### Assessments

- A&P projects and disease research presentations
- Final Exam

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Course: Medical Terms

Length: Semester

### Standards

- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements,



necessary for pursuing a health science career.

- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.4.12.CT.3: Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
- NJSLA.SL6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.
- NJSLA.SL4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

### Essential Question(s)

- How do I communicate effectively in the healthcare team?
- How do I read and interpret diagnostic information?

### Content

- Introduction to Medical Terminology
- The human body in Health and Disease
- The Skeletal System
- The Muscular System
- The Cardiovascular System
- The Lymphatic System



- The Respiratory System
- The Digestive System
- The Urinary System
- The Nervous System
- The Sensory System
- The Integumentary System
- The Endocrine System
- THE Reproductive System
- Diagnostic Procedures, Nuclear Medicine, and Pharmacology

## Skills

- Understanding medical word structure: Break down complex medical terms into prefixes, roots, and suffixes to decipher their meanings.
- Identifying medical abbreviations and acronyms: Interpret abbreviations commonly used in medical documentation.
- Pronouncing medical terms: Properly articulate medical words and phrases to enhance communication.
- Building a medical vocabulary: Expand their knowledge of medical terminology, enabling them to comprehend medical texts and communicate effectively within a healthcare setting.
- Recognizing anatomical and physiological terms: Understand terms related to body systems and functions.
- Understanding disease and condition terminology: Learn about common medical conditions and their associated terminology.
- Interpreting diagnostic and procedural terms: Comprehend terminology used in medical tests, procedures, and diagnoses.
- Describing medical procedures and treatments: Explain various medical interventions and treatments using appropriate terminology.
- Communicating effectively with healthcare professionals: Speak and write in a manner that promotes clear and accurate communication with colleagues and patients.



- Documenting patient information accurately: Use medical terminology correctly when documenting patient assessments and care plans.
- Translating medical terms to lay language: Convey medical information in a way that is easily understood by patients and non-medical individuals.
- Understanding medical records: Navigate and interpret medical charts and records efficiently.
- Enhancing medical coding and billing knowledge: Apply medical terminology to coding and billing processes.
- Working efficiently in healthcare settings: Adapt quickly to healthcare environments, thanks to their understanding of medical terminology.
- Preparing for further healthcare education: Establish a solid foundation for future studies in medical fields, such as nursing, medicine, or medical coding.

### Assessments

- Human sized Body Labeling Project
- Medical Terminology Final Exam

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Course: Anatomy and Physiology II

Length: Semester

### Standards





- HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
  
- HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis technology research and development of products.
- RST.9-10.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-BRD.2 Apply the fundamentals of biochemistry, cell biology, genetics, mathematical concepts, microbiology, molecular biology, organic chemistry and statistics to conduct effective biotechnology research and development of products.

### Essential Question(s)

- How do I communicate effectively in the healthcare team?
- How do I read and interpret diagnostic information?

### Content

- The Respiratory System
- The Digestive System
- The Urinary System
- The Nervous System
- The Sensory System
- The Integumentary System
- The Endocrine System



- The Reproductive System
- As per Healthy People 2030, this content will also include chronic kidney disease, dementia, diabetes, foodborne illness, mental health and mental disorders, oral conditions, pregnancy and childbirth, Respiratory Disease, Sensory or Communication Disorders and Sexually Transmitted Infections

## Skills

- Understanding the human body's structure: Acquire knowledge of the organs, tissues, and systems that comprise the human body.
- Comprehending physiological processes: Learn how the body functions and regulates various biological processes.
- Identifying anatomical landmarks: Recognize key points on the body to aid in medical assessments and communication.
- Describing organ functions: Understand the roles and functions of different organs in maintaining overall health.
- Analyzing body systems: Study how various body systems work together to maintain homeostasis.
- Applying knowledge to clinical settings: Relate anatomical and physiological concepts to real-world medical situations.
- Interpreting medical imaging: Understand the relevance of X-rays, MRIs, CT scans, and other medical imaging techniques.
- Recognizing common medical conditions: Link anatomical and physiological principles to the development and manifestation of diseases.
- Integrating concepts from different disciplines: Connect anatomy and physiology with related fields such as biology, chemistry, and physics.
- Conducting laboratory experiments: Gain hands-on experience through dissections, physiological experiments, and data analysis.
- Applying critical thinking skills: Analyze complex medical scenarios and identify appropriate solutions.
- Understanding human development: Explore how the body changes and develops throughout the life span.



- Relating anatomy and physiology to patient care: Apply knowledge to diagnose and treat medical conditions effectively.
- Preparing for further healthcare studies: Establish a strong foundation for pursuing careers in medicine, nursing, physical therapy, and other healthcare professions.
- Enhancing medical terminology: Learn specific anatomical and physiological terms to communicate effectively in healthcare settings.
- Emphasizing ethical considerations: Understand the importance of ethical practices in medical research and patient care related to anatomy and physiology.
- Developing teamwork and collaboration: Engage in group discussions and collaborative learning activities to enhance communication and problem-solving skills.

### Assessments

- A&P projects and presentations
- Final Exam

Course: EKG

Length: Semester

### Standards

- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.2 Explain the healthcare workers' role within their department, their organization and the overall healthcare system.
- 9.3.HL.3 Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.



- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.

### Essential Question(s)

- Does my patient have a normal or abnormal cardiac rhythm?

### Content

- Cardiac anatomy and physiology
- Electrophysiology
- Lead morphology and placement
- Technical aspects of the EKG
- Calculating Heart Rate
- How to Interpret a Rhythm Strip
- Rhythms Originating in the Sinus Node
- Rhythms Originating in the Atria
- Rhythms Originating in the AV Node
- Rhythms Originating in the Ventricle
- Rhythm Practice
- Diagnostic Electrocardiography



## Skills

- Electrocardiogram (EKG) interpretation: Learn how to read and interpret EKG waveforms and rhythms.
- Identifying normal and abnormal heart rhythms: Recognize normal EKG patterns and identify various arrhythmias.
- Electrode placement: Learn the correct placement of electrodes on the patient's body to obtain accurate EKG readings.
- Operating EKG equipment: Gain proficiency in using EKG machines and related technology.
- EKG lead systems: Understand the different lead systems used in EKGs and their significance.
- Artifacts recognition: Recognize and troubleshoot artifacts that can affect the accuracy of EKG recordings.
- Stress testing EKGs: Learn how to perform and interpret EKGs during stress tests, such as exercise stress tests.
- Holter monitor analysis: Understand how to analyze EKG data recorded over an extended period using Holter monitors.
- Communicating EKG findings: Develop the ability to effectively report EKG findings to healthcare professionals.
- Responding to emergency situations: Acquire the skills to identify critical EKG changes that may require immediate medical attention.
- Basic cardiac anatomy and physiology: Understand the underlying physiological principles related to EKG readings.
- Patient care and communication: Learn how to prepare patients for EKG procedures and provide clear instructions during the process.
- Troubleshooting technical issues: Develop the ability to identify and resolve technical problems with EKG equipment.
- Maintaining EKG records: Learn how to accurately document and maintain patient EKG records for future reference.
- Safety and infection control: Understand safety measures and infection control practices while performing EKG procedures.
- Professionalism and ethics: Emphasize the importance of ethical conduct and professionalism when dealing with patients and their information.



- Teamwork and collaboration: Engage in teamwork to ensure seamless coordination during EKG procedures and patient care.

### Assessments

- Skills testing in EKG lead application
- Skill testing in reading EKG strips

Course: Phlebotomy

Length: Semester

### Standards

- 9.3.HL.3 Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- 9.3.HL-BRD.2 Apply the fundamentals of biochemistry, cell biology, genetics, mathematical concepts, microbiology, molecular biology, organic chemistry and statistics to conduct effective biotechnology research and development of products.
- 9.3.HL-BRD.4 Demonstrate the principles of solution preparation, sterile techniques, contamination control, and measurement and calibration of instruments used in biotechnology research.
- 9.3.HL-BRD.6 Summarize and explain the larger ethical, moral and legal issues related to biotechnology research, product development and use in society.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient



Progress.

- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.MN.3 Comply with federal, state and local regulations to ensure worker safety and health and environmental work practices.

### Essential Question(s)

- What is the medical assistant's role in coordinating laboratory tests and results?
- What are the 3 regulatory categories established by the Clinical Laboratory Improvement Amendment (CLIA)?
- What are the CLIA waived laboratory tests?
- Why is it important to have quality assurance practices in the laboratory?
- Why is specimen collection, including the importance of sensitivity to patient's rights & feelings during specimen collection, important in the laboratory?
- What are the steps to specimen collection, processing and storage?
- What is the importance of understanding laboratory mathematics and measurements?
- What are the different types of laboratory equipment used in healthcare?
- How would a medical assistant identify the proper ways to perform the venipuncture and capillary puncture procedures?
- What are the different types of hematology tests and what is the order of blood draw?
- What types of safety needles and collection devices are used in phlebotomy?
- How does the medical assistant prevent exposure to blood borne pathogens?
- What steps should be followed for post exposure management of an accidental needlestick?
- How does the medical assistant prevent venipuncture complications?

### Content



- Medical assistant's role and responsibilities in the clinical laboratory setting
- 4 main purposes for laboratory testing
- Identification of and differentiate between the different departments of the clinical laboratory
- Identification of and differentiate between the government legislation affecting clinical laboratory testing
- Importance of the Quality Assurance and Quality Control Guidelines
- Laboratory Safety and Infection Prevention and Control Measures
- Identification of and differentiate between the steps to properly perform specimen collections and process, handle and store the specimens
- Laboratory mathematics & measurements
- Identification of the different types of laboratory equipment in use
- Legal and ethical issues involved with laboratory reporting and maintaining patient confidentiality
- Identification of the different types of hematology tests and the order of blood draw
- Identification of the importance of safety needles used during phlebotomy to prevent exposure to blood borne pathogens as per OSHA guidelines
- Post exposure management of an accidental needlestick
- Complications during venipunctures and ways to prevent
- Effective communication between the medical assistant and the patient, the healthcare team and the healthcare provider

## Skills

- Venipuncture techniques: Master the art of drawing blood from veins using various methods, such as the vacuum tube system and butterfly needles.
- Capillary puncture: Learn how to collect blood samples from capillaries, typically from the finger or heel.
- Blood sample collection and handling: Understand proper procedures for collecting, labeling, and handling blood samples to maintain accuracy and prevent contamination.
- Patient identification and verification: Develop protocols to correctly identify patients and match their information to the blood samples.





- Infection control and safety measures: Emphasize the importance of following strict safety protocols to prevent the spread of infections and ensure a safe working environment.
- Handling special cases and difficult patients: Gain skills to handle challenging situations and patients with specific medical conditions or anxieties.
- Order of draw: Learn the correct sequence for drawing multiple blood samples to avoid cross-contamination.
- Equipment maintenance: Understand how to clean and maintain phlebotomy equipment to ensure accurate results and prolong the life of the tools.
- Communication and patient interaction: Develop strong communication skills to effectively interact with patients, provide instructions, and offer reassurance during the blood collection process.
- Legal and ethical considerations: Understand the legal and ethical aspects related to patient confidentiality, consent, and proper documentation.
- Medical terminology: Familiarize themselves with medical terms related to phlebotomy and blood tests.
- Quality control and specimen handling: Learn how to handle and transport blood samples properly to maintain their integrity and ensure accurate results.
- Specimen processing: Understand the steps involved in preparing blood samples for analysis in the laboratory.
- Point-of-care testing: Learn about point-of-care testing methods and how to perform them in certain medical settings.
- Troubleshooting and problem-solving: Develop the ability to identify and address issues that may arise during phlebotomy procedures.
- Understanding test requisitions: Interpret test requisitions accurately to collect the appropriate samples for different medical tests.
- Professionalism and patient care: Emphasize the importance of providing compassionate and professional care to patients throughout the phlebotomy process.

## Assessments

- Summative test for the medical assistant's roles and responsibilities within scope of practice
  - Skills testing for the use of laboratory equipment properly and safely
  - Skills testing for performing laboratory safety measures
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- Skill testing for venipunctures and capillary punctures
- Skills testing for order of blood draw and prevention of venipuncture complications
- Summative testing for the purposes of laboratory testing and the types of CLIA waived tests

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Course: Fundamentals of Patient Care

Length: Semester

### Standards

- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.3 Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
- 9.3.HL-DIA.3 Demonstrate the principles of body mechanics for positioning, transferring and transporting of patients/clients, and perform them without injury to the patient/client or self.
- 9.3.HL-DIA.4 Explain procedures and goals to the patient/client accurately and effectively, using strategies to respond to questions and concerns.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures.

### Essential Question(s)

- How can I safely perform care for my patient?



## Content

- Infection Control
- Safety
- Body Mechanics
- Personal Care of the Patient
- The Patient's Room
- Bedmaking
- Admitting, transferring and discharging a patient
- Measuring Vital Signs
- Nutrition
- Care of the Surgical Equipment
- Patients with Special Needs
- The terminally ill and post mortem care

## Skills

- Bed making: Acquire the skill of making beds for patients, ensuring comfort and hygiene.
- Bathing: Learn how to bathe patients safely and assist them with personal hygiene.
- Dressing: Gain proficiency in helping patients dress appropriately.
- Feeding: Learn techniques for feeding patients who may need assistance with eating.
- Oral care: Understand the importance of oral hygiene and learn how to provide proper oral care to patients.
- Ostomy care: Learn how to care for patients with ostomy bags or surgical openings.
- Foley Catheter Care: Acquire the skills to manage and care for patients with Foley catheters.
- Body Mechanics: Learn proper body mechanics to avoid strain and injury while assisting patients.
- Vital Signs: Gain the ability to measure and record vital signs, such as temperature, pulse, and blood pressure.



- Post Mortem care: Learn the appropriate procedures for providing care after a patient's passing, ensuring respect and dignity.
- Infection control: Understand the importance of infection control measures to prevent the spread of infections in healthcare settings.
- Patient safety: Learn how to prioritize patient safety and prevent accidents or injuries.
- Communication: Develop strong communication skills to interact effectively with patients and other healthcare professionals.
- Empathy and compassion: Emphasize the significance of showing empathy and compassion towards patients in their care.
- Documentation: Learn the importance of accurate and timely documentation of patient care activities.
- Teamwork: Understand the value of collaboration and teamwork in a healthcare setting.
- Cultural sensitivity: Gain awareness and respect for the cultural differences and diverse needs of patients.

### Assessments

- Patient care project and presentation - Each student will be assigned a topic from patient care content and skills. Students must research and create a teaching plan, content, and summative assessment on their content. Students will teach their classmates the assigned topic and assess the class for knowledge obtained.
- Summative exam

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Course: Administrative Assisting

Length: Semester

### Standards

- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.



- 9.3.HL.2 Explain the healthcare workers' role within their department, their organization and the overall healthcare system.
- 9.3.HL.3 Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- 9.3.HL-HI.2 Describe the content and diverse uses of health information.
- 9.3.HL-HI.3 Demonstrate the use of systems used to capture, retrieve and maintain confidential health information from internal and external sources.
- 9.3.HL-SUP.1 Describe, differentiate and safely perform the responsibilities of healthcare support services roles.
- 9.3.HL-SUP.2 Demonstrate work practices that maintain a clean and healthy healthcare facility to reduce or eliminate pathogenic organisms.
- 9.3.HL-SUP.3 Follow established internal and external guidelines in order to provide high-quality, effective support services in the healthcare facility.
- 9.3.HL-SUP.5 Implement healthcare facility standards in order to maintain high-quality healthcare facilities.
- 9.3.HL-THR.1 Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.



- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.
- 9.3.HL-THR.3 Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.
- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.

### Essential Question(s)

- What are the administrative tasks performed by the medical assistant?
- What is therapeutic communication and how is it used during patient interactions?
- What are the legal principles that the medical assistant needs to be aware of in healthcare?
- What are the various healthcare laws?
- Why is the understanding of healthcare ethics important during patient interactions?
- Why is it important to understand the concept of continual technology advances in healthcare?
- What are the important aspects of written, email, and mail communication in healthcare?
- How does the administrative medical assistant communicate effectively on the telephone?
- How does the administrative medical assistant schedule patients?
- What are the steps involving patient processing?
- What are the capabilities of the electronic health record?
- What is the HITECT Act and how does it relate to HIPAA?
- What is meaningful use of the health record?
- What are the daily operations and safety tasks of the administrative medical assistant?
- Why is it important for the administrative medical assistant to identify the different types and benefits of health insurances?
- Why is it important for the administrative medical assistant to understand diagnostic coding?
- Why is it important for the administrative medical assistant to understand procedural coding?
- How does the administrative medical assistant perform medical billing and reimbursement tasks?

### Content



- Therapeutic Communication
- Legal Principles
- Healthcare Laws
- Healthcare Ethics
- Technological Advances in Healthcare
- Written Communication, Email and Mail Correspondence
- Telephone Techniques
- Scheduling Appointments and Patient Processing
- Health Records
- Health Insurance
- Diagnostic Coding
- Procedural Coding
- Medical Billing and Reimbursement

## Skills

- Therapeutic Communication: Develop effective communication skills to interact compassionately and professionally with patients and colleagues.
- Legal Principles: Understand the legal foundations and regulations governing healthcare practices and patient rights.
- Healthcare Laws: Familiarize with the specific laws and regulations that govern the healthcare industry.
- Healthcare Ethics: Learn the ethical principles and guidelines relevant to healthcare administration and patient care.
- Technological Advances in Healthcare: Stay updated with the latest technological advancements and their application in the healthcare sector.
- Written Communication, Email, and Mail Correspondence: Acquire proficiency in written communication for various purposes within the healthcare context.
- Telephone Techniques: Develop effective telephone communication skills to interact with patients and healthcare professionals.



- Scheduling Appointments and Patient Processing: Learn how to efficiently manage patient appointments and process them through the healthcare system.
- Health Records: Understand the importance of accurate and secure health record management for patient care and compliance.
- Health Insurance: Familiarize with health insurance principles and procedures for billing and reimbursement.
- Diagnostic Coding: Gain expertise in assigning appropriate codes to medical diagnoses for billing and recordkeeping purposes.
- Procedural Coding: Learn how to accurately code medical procedures and services for insurance purposes and documentation.
- Medical Billing and Reimbursement: Understand the billing process and reimbursement mechanisms in the healthcare industry.
- Insurance Claim Processing: Learn the procedures for processing insurance claims and managing payment issues.
- Healthcare Compliance: Familiarize with compliance requirements and protocols to ensure adherence to industry standards and regulations.
- Health Information Management: Develop skills in managing and safeguarding patient health information for privacy and security.
- Problem-solving and Decision-making: Acquire critical thinking skills to analyze healthcare administration challenges and make informed decisions.

## Assessments

- Create a simulated health record with a face sheet, informed consent, release of informed consent form, Patient's Bill or Rights
  - Ethical Health Issue Presentation and cite resources
  - Practicums for telephone skills and scheduling appointments
  - Skill testing for healthcare supplies Inventory
  - Completion of a CMS - 100 Health Insurance Claim Form
-





Course: Patient Care Coordination and Education

Length: Semester

### Standards

- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.
- 9.3.HL-THR.1 Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.
- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL.2 Explain the healthcare workers' role within their department, their organization and the overall healthcare system.

### Essential Question(s)

- What is the CCMA role in patient care coordination?
- What are different ways patients learn and I can effectively communicate with them?
- How do I evaluate that learning has been effective?

### Content



- Review patient records prior to visit to ensure health care is comprehensively addressed.
- Ensure that documentation of preventative maintenance and screenings is included in the patient record.
- Identify timelines and track recommendations for screenings and preventive maintenance (for example, mammogram, Papanicolaou (Pap) test, colonoscopy, immunizations).
- Assist provider with researching and supplying information on community resources for clinical and non-clinical services.
- Coordinate with health care providers and community-based organizations for continuity of care.
- Facilitate patient compliance (for example, continuity of care, follow up, medication compliance) to optimize health outcomes.
- Participate in team-based patient care (for example, patient-centered medical home [PCMH], accountable care organization [ACO]).
- Participate in transition of care for patients.
- Provide patient education via telehealth/virtual visit systems and processes.
- Provide education to patients on communicable disease prevention.
- Preventive medicine, preventive screenings, and wellness
- Education delivery methods, instructional techniques, and learning styles for in person and virtual visits
- Patient education related to nutrition and healthy eating, including restrictions, recommendations, and relation to medications
- Available resources for clinical services (for example, home health care)
- Resources and procedures to coordinate care and outpatient services
- Available community resources for nonclinical services (for example, adult day care, transportation vouchers)
- Specialty resources for patient/family medical and cognitive needs
- Barriers to care (for example, socioeconomic, cultural differences, language, education)
- Roles and responsibilities of team members involved in patient-centered medical home (PCMH) and team-based care (TBC)

## Skills



- Reviewing patient records: Develop the ability to comprehensively assess patient records before appointments to ensure comprehensive healthcare is provided.
- Documenting preventative maintenance and screenings: Learn how to accurately document preventative care and screenings in patient records.
- Tracking recommendations for screenings and preventive maintenance: Develop skills in identifying timelines and keeping track of recommended screenings and preventive measures for patients.
- Researching and supplying community resources: Assist healthcare providers by researching and providing information on community resources for clinical and non-clinical services.
- Coordinating care with healthcare providers and organizations: Learn how to coordinate with various healthcare providers and community-based organizations to ensure continuity of care for patients.
- Facilitating patient compliance: Develop strategies to encourage patient compliance with treatment plans, follow-ups, and medication adherence to optimize health outcomes.
- Participating in team-based patient care: Acquire the ability to actively participate in team-based patient care within patient-centered medical home (PCMH) and accountable care organization (ACO) settings.
- Transition of care: Learn procedures and practices related to patient transition of care between different healthcare settings.
- Providing patient education via telehealth and virtual visits: Develop skills to educate patients effectively through telehealth and virtual visit systems and processes.
- Educating patients on communicable disease prevention: Learn how to educate patients about preventing communicable diseases and related safety measures.
- Promoting preventive medicine and wellness: Understand the importance of preventive medicine, screenings, and wellness promotion for patient care.
- Effective education delivery methods: Develop proficiency in utilizing different instructional techniques and learning styles for both in-person and virtual patient education.
- Nutrition and healthy eating education: Gain the ability to provide patient education on nutrition, dietary restrictions, recommendations, and their relation to medications.
- Utilizing available clinical resources: Familiarize with available clinical services and resources, such as home health care.



- Coordinating care and outpatient services: Learn procedures and resources to effectively coordinate patient care and outpatient services.
- Accessing community resources for nonclinical needs: Identify and utilize available community resources for nonclinical services, such as adult day care and transportation vouchers.
- Addressing patient/family medical and cognitive needs: Gain knowledge about specialty resources to meet specific patient and family medical and cognitive needs.
- Overcoming barriers to care: Develop strategies to address barriers to healthcare access, such as socioeconomic factors, cultural differences, language barriers, and education levels.
- Understanding team roles in patient-centered care: Familiarize with the roles and responsibilities of team members involved in patient-centered medical home (PCMH) and team-based care (TBC) models.

### Assessments

- Patient teaching module - assessment of patient learning needs and content to be covered, creation of module, assessment of effective learning.
- Summative exam

Course: Communication and Customer Service

Length: Semester

### Standards

- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.



- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- 9.3.HL-HI.2 Describe the content and diverse uses of health information.
- 9.3.HL-SUP.3 Follow established internal and external guidelines in order to provide high-quality, effective support services in the healthcare facility.
- 9.3.HL-SUP.5 Implement healthcare facility standards in order to maintain high-quality healthcare facilities.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.

### Essential Question(s)

- What is therapeutic communication and how is it used during patient interactions?
- How does the medical assistant communicate effectively on the telephone and through written correspondence with patients, vendors and healthcare practitioners?
- How does professionalism while completing scheduling appointments and answering telephone inquiries affect customer service?
- How does a medical assistant create written correspondence, emails and answer patient questions in a professional manner?
- How does the completion of the daily and safety tasks in a healthcare setting affect customer service?



- Why is it important for the administrative medical assistant to identify the third party payor?
- How does a medical assistant prioritize healthcare situations?
- How does a medical assistant cope with daily stressors?
- How does a medical assistant help patients and families with end of life situations?

## Content

- Therapeutic Communication
- Communication Skills
- Communication Challenges
- Diversity and Human Needs and Development
- End of life care
- Coping skills for stress and death
- Written Communication, Email and Mail Correspondence
- Telephone Techniques and Etiquette
- Daily Operations and Safety

## Skills

- Effective therapeutic communication: Develop proficiency in using therapeutic communication techniques and understanding communication challenges in healthcare settings.
- Types of communication and cultural impacts: Identify different communication types, barriers, and how culture influences communication dynamics.
- Holistic care and cultural accommodation: Understand basic human needs and how to provide holistic care while accommodating cultural differences.
- Human growth and development stages: Recognize the stages of human growth and development across the lifespan.
- Meeting emotional needs: Learn strategies for meeting the emotional needs of patients and their families.
- Addressing stereotypes of the elderly: Identify common stereotypes related to the elderly and promote positive attitudes towards this demographic.



- Communication guidelines for impairments: Recognize communication guidelines for individuals with visual, hearing, and speech impairments.
- Coping with stress and death: Acquire coping techniques to address stress and deal with end-of-life situations.
- Communication with developmental disabilities: Learn effective ways to communicate with individuals who have developmental disabilities.
- Telephone and email etiquette: Develop professional telephone and email communication skills, including message-taking.
- Scheduling appointments with etiquette: Understand key components of etiquette while scheduling appointments for patients.
- Administrative office tasks: Identify tasks involved in office opening and closing procedures in a healthcare setting.
- Third-party payer guidelines: Familiarize with the use of HIPAA guidelines when dealing with third-party payers.
- Conflict management and patient satisfaction: Utilize conflict management techniques to enhance patient satisfaction and resolve disputes.
- Recognizing urgent and emergency situations: Differentiate between routine, urgent, and emergency healthcare situations.
- Observing patients and accurate reporting: Learn how to effectively observe patients and report information accurately for comprehensive care.

## Assessments

- Therapeutic Communication Practicums
  - Written/electronic communications and business vendor correspondence
  - Complete customer issue simulation
  - Demonstration patient screening and interviews
  - Simulate communication between a medical assistant and providers
  - Summative testing about communication and customer service
-



Course: Pharmacology and Medical Mathematics

Length: Semester

### Standards

- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9-10.4. RST Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-HI.1 Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.
- 9.3.HL-BRD.2 Apply the fundamentals of biochemistry, cell biology, genetics, mathematical concepts, microbiology, molecular biology, organic chemistry and statistics to conduct effective biotechnology research and development of products.
- 9.3.HL-BRD.4 Demonstrate the principles of solution preparation, sterile techniques, contamination control, and measurement and calibration of instruments used in biotechnology research.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and in a timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.

### Essential Question(s)

- What are the different classifications and sources of medications?
- How do medications work in the body?





- What are the different medication laws?
- How does the medical assistant differentiate between the different types of medications?
- How does a medical assistant interpret a medication order and a drug label?
- How does a medical assistant prepare a drug prescription?
- How does a medical assistant calculate medication dosing?
- How does a medical assistant interpret syringe doses?
- What are medication administration and treatment records?
- How does a medical assistant identify a patient properly before medication administration?
- What are the different types of injection sites and the uses for each site?
- How does the medical assistant prepare a syringe and administer the injectable medication?

## Content

- Principles of Pharmacology
- Pharmacology Basics
- Drug Legislation
- Drug Names and Therapeutic Effects
- Common Medication Administration Abbreviations
- Medication Orders
- Drug Labels
- Pharmacology Math
- Medication Calculations, Measurement Systems and Dosing
- Reading Syringes
- Administering Different Types of Medications
- Nine Rights of Medication Administration
- Forms of Medications
- Routes of Medications
- Mixing and Reconstituting Medications
- Needles and Syringes
- Types of Injection Sites



- Types of Parenteral Medications

## Skills

- Identification of drug sources and classifications: Develop the ability to identify the sources of drugs and categorize them based on their classifications.
- Understanding drug mechanisms of action: Learn how drugs work in the body and their specific actions.
- Knowledge of drug laws: Identify and differentiate between various types of drug laws and regulations.
- Differentiation of medications: Distinguish between different types of medications, including brand and generic names.
- Defining drug terminology: Understand and define essential drug-related terminology.
- Prescription preparation: Learn how to prepare prescriptions accurately.
- Understanding drug labels: Identify the information found on drug labels and its significance.
- Medication dosage calculation: Acquire skills to convert and calculate medication dosages accurately.
- Syringe dosage reading: Learn to read syringe dosages precisely.
- Medication administration record preparation: Prepare a comprehensive medication administration and treatment record.
- Nine rights of medication administration: Identify and differentiate the nine rights of medication administration to ensure patient safety.
- Proper patient identification: Learn the importance of correctly identifying patients before medication administration.
- Different forms of medications: Identify and differentiate between various forms of medications, such as tablets, capsules, and liquids.
- Different routes of medications: Recognize and differentiate between different routes of medication administration, such as oral, intravenous, and topical.
- Needles and syringes parts identification: Identify and differentiate between the components of needles and syringes.
- Types of injection sites: Understand and differentiate between various types of injection sites.
- Different forms of parenteral medications: Identify and differentiate between different forms of parenteral medications, such as intramuscular and subcutaneous injections.



## Assessments

- Demonstrate how to properly identify a patient during medication administration
- Demonstrate preparing a prescription
- Demonstration of the 9 rights of medication administration
- Demonstrate the ability to measure medication
- Demonstrate the administration of different different forms of medications
- Demonstrate the administration of different types of injectable medications
- Summative testing about pharmacology and the administration of medications

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## Resources

### → Course Resources

- ◆ American Heart Association. Heartsaver First Aid CPR AED Student Workbook. 2016.
- ◆ American Heart Association. Basic Life Support Course. USB Drive. 2020 CPR & ECC Guidelines.
- ◆ CareerSafe. OSHA 10-Hour General Industry - Healthcare. [www.CareerSafeOnline.com](http://www.CareerSafeOnline.com)
- ◆ DeLaet, R. Dynamics of Healthcare in Society, 2013, Lippincott, Williams and Wilkins
- ◆ Dugan, D. Nursing Assisting: A Foundation in Caregiving, 6th edition 2023 Hartman Publishing
- ◆ Ehrlich, A. and Schroeder, C.L. Introduction to Medical Terminology, 3rd edition 2014, Cengage Learning.
- ◆ Ellis, Karen. EKG: Plain and Simple, 4th Edition, 2017, Pearson Education, Inc.



- ◆ Ford, S. Roach's Introduction to Clinical Pharmacology, 11th edition, 2018, Wolters Kluwer
- ◆ Niedźwiecki, Pepper, and Weaver, Kinn's The Medical Assistant: An Applied Learning Approach. 14th edition.
- ◆ Shier, D., Butler, J., and Lewis, R. Introduction to Anatomy and Physiology, Chapter 1, Hole's Anatomy and Physiology, 15th Edition. 2019. New York, New York.
- ◆ Simmers, I., Simmers-Nartker, K., Simmers-Kobelak, S., DHO Health Science, 8th edition. 2017, Cengage Healthcare
- ◆ National healthcareer association study guides and practice exams.