Maryland CTE Programs of Study

Certified Clinical Medical Assistant II (2025)

GENERAL REQUIREMENTS. This course is recommended for students in Grades 10-12, and Certified Clinical Medical Assistant I is the prerequisite. 1

1 GENERAL REQUIREMENTS. This course is recommended for students in Grades 10-12, and Certified Clinical Medical Assistant I is the prerequisite. 1

INTRODUCTION 2

A Career and Technical Education (CTE) instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions. 2.A

B The Health and Human Services Career Cluster promotes whole health in individuals and communities through diverse services. This sector includes technical, mental, and therapeutic services and personal care supported by medical and social sciences. By addressing social determinants of health and leveraging health data and science, this Cluster aims to enhance the overall health and resilience of individuals, families, and communities. 2.B

C The Certified Clinical Medical Assistant Program of Study prepares high school students with essential clinical and administrative skills. Students practice hands-on tasks such as measuring vital signs, performing diagnostic tests, administering medications under supervision, and managing patient records. The course also introduces the basics of pharmacology and medical office operations, ensuring students are prepared for a dual role in clinical and administrative healthcare settings. Key topics addressed are infection control and biohazard safety in clinical environments; measuring and documenting vital signs (temperature, pulse, respiration, blood pressure, BMI); clinical procedures: phlebotomy, electrocardiography (ECG), and specimen collection; basics of pharmacology: drug classifications, common medications, and administration methods; and administrative tasks: electronic health records (EHR), appointment scheduling, and billing basics. Students will be prepared to successfully pass the National Healthcareer Association's (NHA) Certified Clinical Medical Assistant exam. 2.C

Skip to main content

Certified Clinical Medical Assistant II builds on the foundational skills from Certified Clinical Medical Assistant I, focusing on essential clinical and

administrative skills and preparation for certification as a Certified Clinical Medical Assistant. Students engage in hands-on practice of tasks such as measuring vital signs, performing diagnostic tests, administering medications under supervision, and managing patient records. The course also introduces the basics of pharmacology and medical office operations, ensuring students are prepared for a dual role in clinical and administrative healthcare settings 2.D

E **Students will participate in at least two Career-Connected Education and Work-Based Learning experiences in this course, which might include informational interviews or job shadowing relevant to the program of study.** 2.E

F **Students are encouraged to participate in extended learning experiences through aligned Career and Technical Student Organizations (CTSOs). CTSOs are a cocurricular requirement in the Carl D. Perkins Act, and alignment to CTSO activities is an expectation for CTE programs in the state of Maryland.** 2.F

KNOWLEDGE AND SKILLS 3

A **The student demonstrates the necessary skills for career development, maintenance of employability, and successful completion of course outcomes. The student is expected to:** 3.A

1. Identify and demonstrate positive work behaviors that enhance employability and job advancement, such as regular attendance, promptness, proper attire, maintenance of a clean and safe work environment, and pride in work. 3.A.1
2. Demonstrate positive personal qualities such as flexibility, open-mindedness, initiative, active listening, and a willingness to learn. 3.A.2
3. Employ effective reading, writing, and technical documentation skills. 3.A.3
4. Solve problems using critical thinking techniques and structured troubleshooting methodologies. 3.A.4
5. Demonstrate leadership skills and collaborate effectively as a team member. 3.A.5
6. Implement safety procedures, including proper use of software and following privacy guidelines. 3.A.6
7. Exhibit an understanding of legal and ethical responsibilities in the healthcare field, following copyright laws and regulations. 3.A.7
8. Demonstrate time-management skills and the ability to prioritize tasks in a technical setting. 3.A.8

B **The student identifies various career pathways in the healthcare field. The student is expected to:** 3.B

1. Develop a career plan that includes the necessary education, certifications, job skills, and experience for specific roles in healthcare. 3.B.1
2. Create a professional resume and portfolio that reflect skills, projects, certifications, and recommendations. 3.B.2
3. Demonstrate effective interview skills for roles in healthcare fields. 3.B.3

Skip to main content

C **The student develops technology and digital literacy skills. The student is expected to:** 3.C

1. Use technology as a tool for research, organization, communication, and problem-solving. 3.C.1
2. Use digital tools, including computers, mobile devices, collaboration platforms, and cloud services, to access, manage, and create information. 3.C.2
3. Demonstrate proficiency in using emerging and industry-standard technologies. 3.C.3
4. Understand ethical and legal considerations for technology use, including the principles of data protection, copyright, and responsible technology use. 3.C.4

D **The student integrates core academic skills into healthcare practices. The student is expected to:** 3.D

1. Demonstrate the use of clear communication techniques, both written and verbal, that are consistent with industry standards. 3.D.1
2. Apply English concepts such as writing informative texts when documenting healthcare plans and articulating goals. 3.D.2
3. Use mathematical concepts for measurement and conversion (Fahrenheit vs. Celsius), ratios and proportions as well as fraction and decimal conversions. 3.D.3

E **The student applies principles of infection control and standard precautions to maintain a safe and compliant healthcare environment. The student is expected to:** 3.E

1. Identify and follow standard precautions, including hand hygiene and use of personal protective equipment (PPE), to prevent the spread of infection. 3.E.1
2. Implement proper techniques for cleaning, disinfecting, and sterilizing medical equipment and clinical areas. 3.E.2
3. Demonstrate appropriate handling, disposal, and containment of biohazardous materials and waste. 3.E.3
4. Recognize and respond to potential infection risks in the healthcare environment to ensure patient and staff safety. 3.E.4

F **The student demonstrates proficiency in measuring and documenting vital signs accurately. The student is expected to:** 3.F

1. Use manual and electronic devices to measure temperature, pulse, respiration, and blood pressure, ensuring proper calibration and technique. 3.F.1
2. Assess and document variations in height, weight, and body mass index (BMI) with attention to patient comfort and privacy. 3.F.2
3. Interpret abnormal vital signs and communicate these findings promptly and clearly to the healthcare team. 3.F.3

Skip to main content

G **The student demonstrates the ability to perform clinical procedures according to established protocols. The student is expected to:** 3.G

1 Perform phlebotomy following established protocols, including correct vein selection, aseptic technique, patient identification, proper specimen collection, labeling, and handling to ensure accuracy and patient safety. 3.G.1

2 Conduct electrocardiography (ECG) procedures by accurately placing electrodes, operating equipment according to manufacturer and clinical guidelines, monitoring patient response, and producing high-quality tracings for diagnostic use. 3.G.2

3 Collect and process a variety of laboratory specimens—such as blood (venipuncture or capillary), urine (random, clean-catch), stool, sputum, and throat swabs—following proper procedures for identification, labeling, storage, and transport, while maintaining infection control and patient safety protocols. 3.G.3

H The student understands pharmacology and medication administration basics. The student is expected to: 3.H

1 Differentiate among drug classifications, including their therapeutic uses, potential side effects, contraindications, and routes of administration, within the CCMA role. 3.H.1

2 Assist with preparing and administering oral, topical, and injectable medications under supervision. 3.H.2

3 Accurately calculate dosages using basic math and measurement conversions to ensure safe medication administration. 3.H.3

4 Document medication administration and patient responses accurately in medical records and report adverse reactions or errors according to established protocols. 3.H.4

5 Educate patients about common medications, including correct usage and potential adverse effects. 3.H.5

I The student demonstrates proper patient positioning and preparation. The student is expected to: 3.I

1 Position patients correctly for various examinations and procedures, including supine, prone, and Fowler's positions. 3.I.1

2 Prepare examination areas by ensuring appropriate equipment and supplies are sanitized and available. 3.I.2

3 Explain procedures to patients in clear, compassionate language to reduce anxiety and ensure understanding. 3.I.3

J The student accurately documents and communicates patient information using appropriate medical terminology, electronic health records (EHR), and professional communication standards. The student is expected to: 3.J

1 Navigate electronic health record (EHR) systems to input patient data, document clinical interactions, update medical histories, and ensure compliance with privacy regulations. 3.J.1

Skip to main content

Use correct medical terminology and abbreviations to record patient histories, vital signs, procedures, and treatment plans accurately and professionally. 3.J.2

3 Schedule, confirm, and manage patient appointments in accordance with provider availability and clinic protocols, ensuring accuracy in timing and documentation. 3.J.3

4 Generate, review, and interpret patient reports from EHR systems to support provider decision-making and continuity of care. 3.J.4

K The student demonstrates knowledge of legal and ethical considerations. The student is expected to: 3.K

1 Explain the importance of patient confidentiality and HIPAA regulations, ensuring all records are secure and accessed only as necessary. 3.K.1

2 Describe the process for obtaining informed consent and the ethical implications of patient autonomy. 3.K.2

3 Recognize and report mandatory cases such as abuse, communicable diseases, and workplace incidents. 3.K.3

L The student supports patient education by providing clear, accurate, and culturally appropriate information to promote understanding and adherence to care plans. The student is expected to: 3.L

1 Provide patients with instructions for pre- and post-procedure care using language appropriate to their level of health literacy. 3.L.1

2 Use verbal and written communication strategies to explain medication regimens, treatment plans, and lifestyle recommendations clearly and effectively. 3.L.2

3 Adapt educational materials and delivery methods to respect cultural beliefs, language preferences, and individual patient needs. 3.L.3

4 Assess patient understanding by encouraging questions and using techniques such as teach-back to confirm comprehension. 3.L.4

5 Describe the process for obtaining informed consent and the ethical implications of patient autonomy. 3.L.5

6 Recognize and report mandatory cases such as abuse, communicable diseases, and workplace incidents. 3.L.6

M The student responds to medical emergencies effectively. The student is expected to: 3.M

1 Recognize signs and symptoms of common medical emergencies (e.g., cardiac arrest, stroke, anaphylaxis, diabetic emergencies) and initiate appropriate responses. 3.M.1

2 Perform basic life support (BLS) procedures—including CPR and AED use—in accordance with current certification guidelines. 3.M.2

3 Administer first aid for injuries such as bleeding, burns, sprains, fractures, and choking, following established first aid protocols and ensuring patient safety. 3.M.3

Skip to main content

4 Activate emergency medical services (EMS), communicate critical details clearly, and maintain patient stability and calm until advanced care arrives. Perform first aid procedures, such as treating wounds, managing burns, and controlling bleeding. 3.M.4

N The student demonstrates readiness to apply healthcare concepts to real-world patient care scenarios. The student is expected to: 3.N

1 Apply science concepts in the assessment and delivery of medical and healthcare services. 3.N.1

2 Engage in clinical decision-making by analyzing simulated patient conditions and identifying appropriate interventions. 3.N.2

3 Integrate academic and technical skills to address scenarios involving therapeutic, diagnostic, and preventive healthcare services. 3.N.3