

Medical Assisting Technology Mississippi Curriculum Framework

**Program CIP: 51.0801 – Medical/Clinical Assisting
2022**



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The Office of Curriculum and Instruction (OCI) was founded in 2013 under the Division of Workforce, Career, and Technical Education at the Mississippi Community College Board (MCCB). The office is funded through a partnership with The Mississippi Department of Education (MDE), who serves as Mississippi's fiscal agent for state and federal Career and Technical Education (CTE) Funds. The OCI is tasked with developing statewide CTE curriculum, programming, and professional development designed to meet the local and statewide economic demand.

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Industry Job Projection Data

A summary of occupational data is available from the Mississippi Department of Employment Security.

Medical/ Clinical Assistant Technology occupations require an education level of a postsecondary career and technical certificate. A summary of occupational data from the [Mississippi Occupational Employment Projections](#) is displayed below:

Standard Occupational Classification (SOC)		2016 Employment	2026 Projected Employment	Projected Employment Growth 2016-2026		Total Projected Avg. Annual Job Openings
SOC Code	Occupation			Number	Percent	
25-1071	Health Specialities Teachers, Postsecondary	1,730	2,150	420	24.3%	200
31-9092	Medical Assistants	3,190	3,710	520	16.3%	435

Note. The data was retrieved April 26, 2022 from the Mississippi Occupational Employment Projection Standard Occupational Classification (SOC) data

<https://mdes.ms.gov/information-center/labor-market-information/>

RESEARCH ABSTRACT

The curriculum framework in this document reflects these changes in the workplace and a number of other factors that impact local career and technical programs. Federal and state legislation calls for articulation between high school and community college programs, integration of academic and technical skills, and the development of sequential courses of study that provide students with the optimum educational path for achieving successful employment. National skills standards, developed by industry groups and sponsored by the U.S. Department of Education and Labor, provide career technical educators with the expectations of employers across the United States. All of these factors are reflected in the framework found in this document.

An industry questionnaire was used to gather feedback concerning the trends and needs, both current and future, of their field. The Office of Curriculum and Instruction also met with advisory committee members who reiterated what industry had stated. Program faculty, administrators, and industry members were consulted regarding industry workforce needs and trends.

The major change within the revision process this time was the adoption of the Commission on Accreditation of Allied Health Education Programs (CAAHEP) standards. The 2022 standards have been adopted by the American Association of Medical Assistants (AAMA), the Medical Assisting Education Review Board (MAERB), and the CAAHEP.

RESEARCH HISTORY

2010 - Research & Curriculum Unit, Mississippi State University

2015 - Office of Curriculum & Instruction, Mississippi Community College Board

2022- Office of Curriculum & Instruction, Mississippi Community College Board

ADOPTION OF NATIONAL CERTIFICATION STANDARDS

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) is a programmatic postsecondary accrediting agency recognized by the Council for Higher Education Accreditation (CHEA) and carries out its accrediting activities in cooperation with 23 review committees (Committees on Accreditation). CAAHEP currently accredits over 2100 entry level education programs in 28 health science professions.

CAAHEP, a 501(c)(3) tax exempt organization, was formed in 1994. Its predecessor organization was the Committee on Allied Health Education and Accreditation (CAHEA). CAHEA was part of the American Medical Association (AMA).

CAAHEP is comprised of both a Commission and a Board of Directors. The Commission is composed of representatives appointed to represent the organizations that belong to CAAHEP as well as certain other "communities of interest." These Commissioners are responsible for approving the bylaws, mission, and vision statements of CAAHEP, as well as determining which health sciences professions are to be recognized by CAAHEP.

The CAAHEP Board of Directors is composed of 16 members, who are elected by and from among the Commissioners. The Board is the accrediting body of CAAHEP that awards or denies accreditation after review of accreditation recommendations made by the Committees on Accreditation. It is also the primary governing body that oversees the business of CAAHEP and implements the mission and vision as adopted by the Commission.

The Medical Assisting Education Review Board

The Medical Assisting Education Review Board (MAERB) is a Committee on Accreditation (CoA) of the Commission on Accreditation of Allied Health Education Programs (CAAHEP). MAERB is an autonomous unit within the American Association of Medical Assistants Endowment (AAMAE). The American Association of Medical Assistants (AAMA) is a sponsoring organization of MAERB. MAERB makes accreditation recommendations for the status of accreditation of medical assisting programs.

Within those accreditation processes, the MAERB fulfills these functions:

- Ongoing review of program compliance and achievement of outcome thresholds
- Regularly reviewing Standards for medical assisting education accreditation
- Development and revision of the core Curriculum for Medical Assistants
- Conducting accreditation workshops for medical assisting educators
- Conducting workshops for MAERB/CAAHEP surveyors to promote consistent review of programs
- Providing medical assisting educators with current information about CAAHEP and MAERB policies and practices for accreditation

The MAERB members are educators from both public and private institutions, administrators from institutions with accredited medical assisting programs, practicing medical assistants, members of the public, and physicians.

More information on the MAERB can be found at: <http://maerb.org>

ARTICULATION

Articulation credit from Secondary Allied Health to Postsecondary Medical Assisting Technology will be awarded when applicable. Articulation credit from Secondary Business and Computer Technology to Postsecondary Medical Assisting Technology will be awarded. Courses to be articulated include CPT 1113 – Fundamentals of Microcomputer Applications and CPT 1324 – Survey of Microcomputer Applications.

SEC Program	PS Program	PS Courses
Business Fundamentals (CIP 52.0101)	PS Medical Assisting Technology (CIP 51.0801)	CPT 1113 – Fundamentals of Microcomputer Applications CPT 1323 – Survey of Microcomputer Applications

Technical Skills Assessment

Colleges should report the following for students who complete the program with a career certificate, technical certificate, or an Associate of Applied Science Degrees for technical skills attainment. To use the approved Alternate Assessment for the following programs of study, colleges should provide a Letter of Notification to the Director of Career Technical Education at the MS Community College Board. Please see the following link for further instructions: <http://www.mccb.edu/wkfEdu/CTDefault.aspx>.

CIP Code	Program of Study
51.0801	Medical/Clinical Assistant
Level	Standard Assessment
Accelerated /15 Hour	
Level	Standard Assessment
Career	<p>The American Association of Medical Assistants (AAMA) for the Certified Medical Assistant CMA (AAMA), Examination/Recertification</p> <p>The American Medical Technologist (AMT) for the Registered Medical Assistant (RMA)</p> <p>Examination/Recertification; the National Health career Association (NHA) for the Certified Clinical Medical Assistant (CCMA), Examination/Recertification</p> <p>American Medical Certification Association (AMCA) for the Clinical Medical Assistant Certification (CMAC)</p>

	<p>OR the National Center for Competency Testing (NCCT) for the National Certified Medical Assistant (NCMA) Examination/Recertification.</p>
Level	Standard Assessment
Technical/AAS	<p>The American Association of Medical Assistants (AAMA) for the Certified Medical Assistant CMA (AAMA), Examination/Recertification</p> <p>The American Medical Technologist (AMT) for the Registered Medical Assistant (RMA)</p> <p>Examination/Recertification; the National Health career Association (NHA) for the Certified Clinical Medical Assistant (CCMA), Examination/Recertification</p> <p>American Medical Certification Association (AMCA) for the Clinical Medical Assistant Certification (CMAC)</p> <p>OR the National Center for Competency Testing (NCCT) for the National Certified Medical Assistant (NCMA) Examination/Recertification.</p>

PROGRAM DESCRIPTION

Medical assistants are multi-skilled allied health professionals specifically educated to work in ambulatory settings performing administrative and clinical duties. The practice of medical assisting directly influences the public's well-being, and requires mastery of a complex body of knowledge and specialized skills requiring both formal education and practical experiences that serve as standards for entry into the profession. The business administrative duties include scheduling and receiving patients; obtaining patients' data; maintaining medical records; handling telephone calls, correspondence, reports, and manuscripts; assuming responsibility for office care; and handling insurance matters, office accounts, fees, and collections. The clinical duties vary according to state law and may include preparing patients for examination, obtaining vital signs, taking medical histories, assisting with examinations and treatments, performing routine office laboratory procedures and electrocardiograms, preparing and administering medications and immunizations, sterilizing instruments and equipment for office procedures, and instructing patients in preparation for radiologic and laboratory examinations, and providing patient education. Both administrative and clinical duties involve purchasing and maintaining supplies and equipment. A medical assistant may also be responsible for personnel and office management. Upon successful completion of this program, it entitles graduates to sit for the national credentialing examination, determined by the program's accrediting body.

The credentialing will include:

The American Association of Medical Assistants (AAMA) for the Certified Medical Assistant CMA (AAMA), Examination/Recertification;

The American Medical Technologist (AMT) for the Registered Medical Assistant (RMA) Examination/Recertification; the National Health career Association (NHA) for the Certified Clinical Medical Assistant (CCMA), Examination/Recertification ;

American Medical Certification Association (AMCA) for the Clinical Medical Assistant Certification (CMAC) **OR** the National Center for Competency Testing (NCCT) for the National Certified Medical Assistant (NCMA) Examination/Recertification.

These examinations will be used to assess students upon completion of the one or two year program. This curriculum has adopted the CAAHEP Standards and Guidelines for the Accreditation of Educational Programs in Medical Assisting.

SUGGESTED COURSE SEQUENCE

Required Courses

			SCH Breakdown				Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Clinical/ Internship	Total Contact Hours	Certification Name
MET 1113	Medical Terminology	3	2	2		60	American Association of Medical Assistants Examination OR American Medical Technologist Examination OR National Healthcareer Association Examination OR American Medical Certification Association (AMCA) for the Clinical Medical Assistant Certification (CMAC) OR National Center for Competency Testing Examination
MET 1313	Clinical Procedures I	3	2	2		60	
MET 1513	Pharmacology for Medical Assistants	3	3	0		45	
MET 1214	Medical Business Practices	4	3	2		75	
MET 1323	Clinical Procedures II	3	2	2		60	
MET 1413	Medical Law Ethics	3	3	0		45	
MET 2334	Medical Laboratory for Medical Assistants	4	3	2		75	
MET 2234	Medical Insurance	4	3	2		75	
MET 2716	Practicum	6	1	0	15	240	
MET 2613	Clinical Review	3	3	0		45	
CRPT 1113 OR CPT 1324 OR CSC1123 OR BOT 1133 OR BAD 2533	Fundamentals of Microcomputer Applications OR Survey of Microcomputer Applications OR Computer Applications I OR Microcomputer Applications OR Computer Applications in Business & Industry	3/4	2 3	2 2		60 75	
	Approved Electives per Local Community College	5/6					
TOTAL		44/46					

*Colleges will require with a Prerequisite or Corequisite BIO 1514, 2514 or BIO 1534 Anatomy & Physiology I or Survey of Anatomy & Physiology

Electives

			SCH Breakdown		
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Credit Hours
BOT 2813	Business Communications	3	2	2	60
MET 2224	Computer Conceptsfor Medical Assistants	4	2	4	90
MET 1911	Medical Assisting Technology Seminar I	1	1	0	15
MET 1921	Medical Assisting Technology Seminar II	1	1	0	15
MET 1931	Medical Assisting Technology Seminar III	1	1	0	15
MET 291 (1-3)	Special Project in Medical Assisting	1-3			
WBL I, II, III, III, IV, V, and VI WBL 191(1-3), WBL 192(1-3), WBL 193(1-3), WBL 291(1-3), WBL 292(1-3), and WBL 293(1-3)	Work Based Learning	1-3			

General Education Core Courses

To receive the Associate of Applied Science degree, a student must complete all of the required coursework found in the Career Certificate option, Technical certificate option, and a minimum of 15 semester hours of General Education core. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester or provided primarily within the last semester. Each community college will specify the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science degree at their college. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Section 9 Standard 3 of the *Principles of Accreditation: Foundations for Quality Enhancement*¹ describes the general education core.

Section 9 Standard 3:

3. The institution requires the successful completion of a general education component at the undergraduate level that
 - a) is based on a coherent rationale.
 - b) is a substantial component of each undergraduate degree program. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours of the equivalent; for baccalaureate programs, a minimum of 30 semester hours or the equivalent.
 - c) ensures breadth of knowledge. These credit hours include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. These courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

General Education Courses

			SCH Breakdown			Contact Hour Breakdown		Certification Information
Course Number	Course Name	Semester Credit Hours	Lecture	Lab	Total Contact Hours	Lecture	Lab	Certification Name
	Humanities/Fine Arts	3						
	Social/Behavioral Sciences	3						
	Math/Science	3						
	Academic electives	6						
	TOTAL	15						

¹ Southern Association of Colleges and Schools Commission on Colleges. (2017). *The Principles of Accreditation: Foundations for Quality Enhancement*. Retrieved from <http://www.sacscoc.org/2017ProposedPrinc/Proposed%20Principles%20Adopted%20by%20BOT.pdf>

MEDICAL ASSISTING TECHNOLOGY COURSES

Course Number and Name: **MET 1113** **Medical Terminology**

Description: This course is a study of medical language relating to the various body systems including diseases, physical conditions, procedures, clinical specialties, and abbreviations. Emphasis is placed on correct spelling and pronunciation and the use of computer assisted software.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	2	2	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Recognize and discuss word components, terms, procedures, abbreviations, and symbols related to the various body systems.
 - a. Identify combining forms, suffixes, and prefixes related to the various body systems.
 - b. Identify and discuss disease terms related to the various body systems.
 - c. Identify diagnostic imaging, clinical, surgical, and laboratory procedures related to the various body systems.
 - d. Identify abbreviations and symbols related to the various body systems.
 - e. Define, spell, pronounce, and use medical terms.
2. Demonstrate ability to communicate information using medical terms in a clear, concise manner.
 - a. Read and comprehend medical terminology as viewed in medical charts.
 - b. Discuss medical terminology used in medical charts.

CAAHEP Standards

COGNITIVE

- I.C.1 Identify structural organization of the human body
- I.C.2 Identify body systems
- I.C.3 Identify:
 - a. body planes
 - b. directional terms
 - c. quadrants
 - d. body cavities
- I.C.4 Identify major organs in each body system
- I.C.5 Identify the anatomical location of major organs in each body system
- I.C.6 Identify the structure and function of the human body across the life span
- I.C.7 Identify the normal function of each body system
- I.C.8 Identify common pathology related to each body system including:
 - a. signs
 - b. symptoms
 - c. etiology
 - d. diagnostic measures
 - e. treatment modalities
- V.C.8 Identify the following related to body systems
 - a. medical terms
 - b. abbreviations

Course Number and Name: MET 1214 Medical Business Practices

Description: This course presents the administrative medical assistant procedures with office management written and oral communications. Emphasis is placed on clerical functions, billing, collecting, bookkeeping, and creating and maintaining medical records. The goal is to provide the student with practice situations through demonstration and simulated office settings utilizing electronic health-care record software.

Hour Breakdown:	Semester Credit Hours	Lecture	Lab	Contact Hours
	4	3	2	75

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Display professionalism.
 - a. Project a professional manner and image.
 - b. Demonstrate initiative and responsibility.
 - c. Manage time effectively.
 - d. Prioritize and perform multiple tasks.
 - e. Adapt to change.
 - f. Promote national credentialing
2. Demonstrate professional communications.
 - a. Adapt communication to individuals' abilities to understand.
 - b. Demonstrate professional telephone techniques.
 - c. Respond to and initiate written communications.
 - d. Recognize and respond to verbal and nonverbal communications.
 - e. Discuss the role of assertiveness in effective professional communication.
 - f. Use medical terminology appropriately.
 - g. Receive, organize, prioritize, and transmit information.
3. Perform clerical functions.
 - a. Schedule and manage appointments.
 - b. Schedule inpatient/outpatient admissions and procedures.
 - c. Prepare, organize, and maintain patients' medical records.
4. Perform operational functions of the office environment.
 - a. Perform an inventory of supplies and equipment.
 - b. Perform routine maintenance of administrative equipment.
 - c. Utilize computer software to maintain office systems.
5. Perform bookkeeping procedures.
 - a. Prepare a bank deposit.
 - b. Perform accounts receivable procedures.
 - (1) Post entries on a daysheet.
 - (2) Perform billing and collection procedures.
 - (3) Post adjustments and refunds.
 - c. Utilize computerized office billing systems.

CAAHEP Standards

COGNITIVE

- V.C.1 Identify types of verbal and nonverbal communication
- V.C.2 Identify communication barriers
- V.C.3 Identify techniques for overcoming communication barriers
- V.C.4 Identify the steps in the sender-receiver process
- V.C.5 Identify challenges in communication with different age groups
- V.C.6 Identify techniques for coaching a patient related to specific needs
- V.C.7 Identify different types of electronic technology used in professional communication
- V.C.10 Identify the role of the medical assistant as a patient navigator
- V.C.11 Identify coping mechanisms
- V.C.12 Identify subjective and objective information
- VI.C.1 Identify different types of appointment scheduling methods
- VI.C.2 Identify critical information required for scheduling patient procedures
- VI.C.3 Recognize the purpose for routine maintenance of equipment
- VI.C.4 Identify steps involved in completing an inventory
- VI.C.5 Identify importance of data backup
- VI.C.6 Identify the components of an Electronic Medical Record, Electronic Health Record, and Practice Management system
- VII.C.1 Define the following bookkeeping terms
 - a. charges
 - b. payments
 - c. accounts receivable
 - d. accounts payable
 - e. adjustments
 - f. end of day reconciliation
- VII.C.2 Identify precautions for accepting the following types of payments
 - a. cash
 - b. check
 - c. credit card
 - d. debit card
- VII.C.3 Identify types of adjustments made to patient accounts including:
 - a. non-sufficient funds (NSF) check
 - b. collection agency transaction
 - c. credit balance
 - d. third party
- VII.C.4 Identify patient financial obligations for services rendered

PSYCHOMOTOR

- V.P.3 Coach patients regarding:
 - a. office policies
- V.P.4 Demonstrate professional telephone techniques
- V.P.5 Document telephone messages accurately
- V.P.6 Using technology, compose clear and correct correspondence
- V.P.7 Use a list of community resources to facilitate referrals
- VI.P.1 Manage appointment schedule using established priorities
- VI.P.2 Schedule a patient procedure
- VI.P.4 Perform an inventory of supplies
- VII.P.1 Perform accounts receivable procedures to patient accounts including posting
 - a. charges
 - b. payments
 - c. adjustments
- VII.P.3 Inform a patient of financial obligations for services rendered

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self-awareness

Course Number and Name: MET 1313 Clinical Procedures I

Description: The purpose of this course is to introduce the student to basic clinical skills, Occupational Safety and Health Administration (OSHA) standards, infection control, vital signs, patient preparation, and assisting with examinations, emphasizing the importance of being proficient in all of these areas. This course also provides students with opportunities to practice and demonstrate proficiency in simulated settings and check-offs.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	2	2	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Act in a professional manner.
 - a. Project a professional manner and image.
 - b. Adhere to ethical principles.
 - c. Demonstrate initiative and responsibility.
 - d. Work as a team member.
 - e. Manage time effectively.
 - f. Prioritize and perform multiple tasks.
 - g. Adapt to change.
2. Assess communication skills.
 - a. Treat all patients with compassion and empathy.
 - b. Recognize and respect individual cultural diversity.
 - c. Adapt communications to individual's ability to understand.
 - d. Recognize and respond to verbal and nonverbal communications.
 - f. Use medical terminology appropriately.
 - g. Receive, organize, prioritize, and transmit information.
3. Apply legal concepts.
 - a. Maintain confidentiality.
 - b. Practice within the scope of education, training, and personal capabilities.
 - c. Document accurately.
4. Perform clinical duties.
 - a. Apply principles of aseptic technique and infection control.
 - b. Employ OSHA guidelines as stated in the Federal Register.
 - c. Obtain patient history, vital signs and measurements.
 - d. Adhere to established patient screening procedures.
 - e. Recognize and respond to medical emergencies.
 - f. Perform routine maintenance of clinical equipment.
 - g. Prepare, maintain, and clean examination and treatment area.
 - h. Prepare patients for examinations, procedures, and treatments.
 - i. Assist with routine and specialty examinations, procedures, and treatments.
 - j. Instruct patients in the collection of fecal specimens.
 - k. Screen and follow up test results.
 - l. Comply with quality assurance practices.
 - m. Provide instruction for health maintenance and disease prevention.
 - n. Participate in a telehealth interaction with a patient.

CAAHEP Standards

COGNITIVE

- III.C.1 Identify major types of infectious agents
- III.C.2 Identify the infection cycle including:
 - a. the infectious agent
 - b. reservoir
 - c. susceptible host
 - d. means of transmission
 - e. portals of entry
 - f. portals of exit
- III.C.3 Identify the following as practiced within an ambulatory care setting
 - a. medical asepsis
 - b. surgical asepsis
- III.C.4 Identify methods of controlling the growth of microorganisms
- III.C.5 Identify the principles of standard precautions
- III.C.6 Identify personal protective equipment (PPE)
- III.C.7 Identify the implications for failure to comply with Centers for Disease Control (CDC) regulations in health care settings
- V.C.12 Identify between subjective and objective information
- V.C.15 Identify the medical assistant's role in telehealth

PSYCHOMOTOR

- I.P.1 Accurately Measure and record:
 - a. blood pressure
 - b. temperature
 - c. pulse
 - d. respirations
 - e. height
 - f. weight (adult and infant)
 - g. length (infant)
 - h. head circumference (infant)
 - i. oxygen saturation
- I.P.3 Perform patient screening following established protocols
- II.P.3 Document on a growth chart
- III.P.1 Participate in bloodborne pathogen training
- III.P.2 Select appropriate barrier/personal protective equipment (PPE)
- III.P.3. Perform handwashing
- V.P.1 Respond to nonverbal communication
- V.P.2 Correctly use and pronounce medical terminology in health care interactions
- V.P.8 Participate in a telehealth interaction with a patient

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self-awareness

Course Number and Name: **MET 1323 Clinical Procedures II**

Description: This course is a continuation of Clinical Procedures I and will further the student's knowledge of the more complex activities encountered in the physician's office. The clinical duties include maintaining surgical asepsis, instructing patients in preparation for radiologic studies, performing ECGs, preparing and administering medications as directed by the physician, and providing mobility assistance.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	2	2	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Apply fundamental principles of aseptic technique in minor surgical procedures.
 - a. List the equipment and supplies basic to all minor surgical procedures.
 - b. Demonstrate equipment sterilization procedures.
 - c. Prepare minor office surgery tray.
 - d. Perform skin prep of surgery site.
 - e. Identify and state the purpose of each instrument used in selected clinical procedures.
 - f. Recognize the need for proper care, storage, and maintenance of equipment.
2. Provide instructions to patients to prepare for diagnostic imaging studies.
 - a. Prepare patients for procedures.
 - b. Instruct patients in preparation for radiological studies.
3. Perform selected tests that assist with diagnosis and treatment.
 - a. Perform respiratory testing.
 - b. Describe the electrical conduction system of the heart.
 - c. Perform an electrocardiogram (ECG).
 - d. Define ECG artifacts, and list their causes on an ECG.
 - e. Differentiate among the patch, scratch, and intradermal skin tests.
 - f. Describe how to determine the results for each of the allergy testing methods.
 - g. Assist with routine and specialty examinations, procedures, and treatments.
 - h. Perform routine maintenance of clinical equipment.
 - i. Demonstrate specimen collection according to appropriate lab guidelines.
 - j. Instruct patients in the collection of fecal specimens.
 - k. Screen and follow up test results.
 - l. Comply with quality assurance practices.
4. Prepare and administer medications and immunizations as directed by physician.
 - a. Name the tissue layers and sites of injection for intradermal, intramuscular, z-track, and subcutaneous injections.
 - b. Select the proper size needle and syringe for a specific injection.
 - c. Perform the proper technique for administering intradermal, intra-muscular, z-track, and subcutaneous injections.
 - d. Demonstrate the proper disposal of a used needle and syringe.
5. Demonstrate knowledge of selected mobility assistance skills and use of equipment.
 - a. Recognize and practice principles of body mechanics.
 - b. Recognize and practice principles of transfers.
 - c. Recognize and practice principles of ambulation activities.

- d. Discuss the use and care of patient equipment.
6. Practice appropriate legal concepts.
- a. Respond to issues of confidentiality.
 - b. Perform within legal and ethical boundaries.
 - c. Maintain an awareness of federal and state health-care legislation and legal guidelines.

CAAHEP Standards

COGNITIVE

- I.C.12 Identify basic principles of first aid
- I.C.13 Identify appropriate vaccinations based on an immunization schedule
- XII.C.4 Identify emergency practices for evacuation of a healthcare setting
- XII.C.5 Identify the purpose of Safety Data Sheets (SDS) in a healthcare setting
- XII.C.6 Identify processes for disposal of
 - a. biohazardous waste
 - b. chemicals
- XII.C.7 Identify principles of:
 - a. body mechanics
 - b. ergonomics
- XII.C.8 Identify critical elements of an emergency plan for response to a natural disaster or other emergency
- XII.C.9 Identify the physical manifestations and emotional behaviors on persons involved in an emergency

PSYCHOMOTOR

- I.P.2 Perform following procedures:
 - a. electrocardiography
 - d. pulmonary function testing
- I.P.4 Verify the rules of medication administration:
 - a. right patient
 - b. right medication
 - c. right dose
 - d. right route
 - e. right time
 - f. right documentation
- I.P.5 Select proper sites for administering parenteral medication
- I.P.6 Administer oral medications
- I.P.7 Administer parenteral (excluding IV) medications
- I.P.8 Instruct and prepare a patient for a procedure or a treatment
- I.P.9 Assist provider with a patient exam
- I.P.12 Provide up-to-date documentation of provider/professional level CPR
- I.P.13 Perform first aid procedures:
 - a. bleeding
 - b. diabetic coma or insulin shock
 - c. stroke
 - d. seizures
 - e. environmental emergency
 - f. syncope
- III.P.4 Prepare items for autoclaving
- III.P.5. Perform sterilization procedures
- III.P.6 Prepare a sterile field
- III.P.7 Perform within a sterile field
- III.P.8 Perform wound care
- III.P.9 Perform dressing change
- III.P.10 Demonstrate proper disposal of bio-hazardous material
 - a. sharps

- b. regulated wastes
- V.P.2 Correctly use and pronounce accurately medical terminology in healthcare interactions
- V.P.3 Coach patients regarding
 - b. medical encounters
- X.P.3 Document patient care accurately in the medical record
- XII.P.3 Use proper body mechanics

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self-awareness

Course Number and Name: **MET 1413 Medical Law and Ethics**

Description: This course covers medical law, ethics, and bioethics; the legal relationship of the physician and patient; the legal responsibilities of the healthcare team including the patient; and the importance of professional liability.

Hour Breakdown:	Semester Credit Hours	Lecture	Lab	Contact Hours
	3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Define and discuss basic legal concepts.
 - a. Distinguish between civil and criminal law.
 - b. Differentiate between a felony and a misdemeanor.
 - c. Distinguish between negligence and malpractice.
 - d. List the elements of civil malpractice litigation.
 - e. Identify the phases followed in trying medical malpractice cases.
 - f. Identify the stages of appeal.
 - g. Identify the economic impact of malpractice litigation on the cost of medicine.
 - h. Define subpoena duces tecum.
 - i. Define tort.
 - j. Distinguish among law, morals, ethics, and etiquette.
2. Perform within legal and ethical boundaries.
 - a. Identify ways that employment in a medical office carries legal obligations for the patient, employer, employee, and state.
 - b. Recognize the Code of Ethics of the health-care professions.
3. Practice within the scope of education, training, and personal capabilities.
 - a. Explain standard of care.
 - b. Describe the professional conduct for medical office personnel to prevent medical malpractice lawsuits.
4. Identify and respond to issues of confidentiality.
 - a. Explore the issue of confidentiality as it applies to the medial assistant.
 - b. Apply the legal doctrine of privileged communication to the contents of a medical record.
 - c. Summarize the Patient's Bill of Rights.
 - d. Explain the correct procedure for reporting communicable diseases in a manner that maintains confidentiality.
5. Document accurately.
 - a. Explain the importance of medical record credibility.
 - b. Demonstrate the acceptable method for making corrections to a medical record.
 - c. Determine needs for documentation and reporting.
 - d. List different types of medical records.
6. Use appropriate guidelines when releasing records or information.
 - a. Describe the legal, moral, and ethical aspects of informed consent.
 - b. Identify the owner of a medical record.
 - c. Apply HIPAA rules in regard to privacy/release of information.

7. Follow employer's established policies dealing with the health-care contract.
 - a. List three elements for a contract to be valid.
 - b. Differentiate between an implied and expressed contract for medical treatment.
 - c. Incorporate the Patient's Bill of Rights into personal practice and medical office policies and procedures.
 - d. Discuss the procedure for terminating a physician-patient contract.
8. Follow federal, state, and local legal guidelines in the practice setting.
9. Implement and maintain awareness of federal and state health-care legislation and regulations.
 - a. Identify questions surrounding bioethics and its impact on future generations.
 - b. Identify ethical questions surrounding life, death, and the impact on future generations.
 - c. Identify legal responsibilities for minors, incompetents, and special needs patients.

CAAHEP Standards

COGNITIVE

- V.C.9 Identify the principles of self-boundaries
- V.C.13 Identify the basic concepts of the following theories
 - a. Maslow
 - b. Erikson
 - c. Kubler-Ross
- V.C.14 Identify issues associated with diversity as it relates to patient care
- X.C.1 Identify scope of practice and standards of care for medical assistants
- X.C.2 Identify the provider role in terms of standard of care
- X.C.3 Identify components of the Health Information Portability & Accountability Act (HIPAA)
- X.C.4 Identify the standards outlined in The Patient Care Partnership
- X.C.5 Identify licensure and certification as they apply to healthcare providers
- X.C.6 Identify criminal and civil law as they apply to the practicing medical assistant
- X.C.7 Define:
 - a. negligence
 - b. malpractice
 - c. statute of limitations
 - d. Good Samaritan Act(s)
 - e. Uniform Anatomical Gift Act
 - f. living will/advanced directives
 - g. medical durable power of attorney
 - h. Patient Self Determination Act (PSDA)
 - i. risk management
- X.C.8 Identify purpose of medical malpractice insurance
- X.C.9 Identify legal and illegal applicant interview questions
- X.C.10 Identify:
 - a. Health Information Technology for Economic and Clinical Health (HITECH) Act
 - b. Genetic Information Nondiscrimination Act of 2008 (GINA)
 - c. Americans with Disabilities Act Amendments Act (ADAAA)
- X.C.11 Identify the process in compliance reporting:
 - a. unsafe activities
 - b. errors in patient care
 - c. conflicts of interest
 - d. incident reports
- X.C.12 Identify compliance with public health statutes:
 - a. communicable diseases
 - b. abuse, neglect, and exploitation
 - c. wounds of violence
- X.C.13 Define the following medical legal terms:
 - a. informed consent

- b. implied consent
 - c. expressed consent
 - d. patient incompetence
 - e. emancipated minor
 - f. mature minor
 - g. subpoena duces tecum
 - h. respondeat superior
 - i. res ipsa loquitor
 - j. locum tenens
 - k. defendant-plaintiff
 - l. deposition
 - m. arbitration-mediation
- XI.C.1 Define:
- a. ethics
 - b. morals
- XI.C.2 Identify personal and professional ethics
- XI.C.3 Identify potential effects of personal morals on professional performance
- XI.C.4 Identify professional behaviors of a medical assistant

PSYCHOMOTOR

- X.P.1 Locate a state's legal scope of practice for medical assistants
- X.P.2 Apply HIPAA rules in regard to:
- a. privacy
 - b. release of information
- X.P.4 Complete compliance reporting based on public health statutes
- X.P.5 Report an illegal activity following the protocol established by the healthcare setting
- X.P.6 Complete an incident report related to an error in patient care
- XI.P.1 Demonstrate professional response(s) to ethical issues

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self-awareness

Course Number and Name: **MET 1513 Pharmacology for Medical Assistants**

Description: The course reflects basic theory and clinical information related to drugs including classifications, source, dosages and measurements, regulatory requirements, and basic principles of drug administration. At all times, safety is emphasized for the health professional administering the medication and the patients receiving the medication. Accuracy is stressed.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Calculate medication dosages.
 - a. Convert household measures to apothecary and metric system.
 - b. Calculate dosages based on body weight and body surface area.
 - c. Solve clinical calculations involved in the administration of medication with 100% accuracy.
 - d. Use knowledge of appropriate methods of rounding doses when administering medications.
2. Identify the major drug classifications.
 - a. List the major drug classifications.
 - b. Name at least five drugs in each major classification.
 - c. Identify the action, indication, usual dosage, and adverse reactions of commonly used drugs.
3. Identify the five controlled substances schedules.
 - a. Define the five controlled substances schedules, and give examples of medications listed in each.
 - b. Explain storage, inventory, record keeping, and disposal for controlled substances.
 - c. Explain the significance of the Controlled Substances Act of 1970.
4. Apply pharmacology principles to prepare and administer oral and parenteral (excluding intravenous [IV]) medication.
 - a. State the "Six Rights" of proper drug administration.
 - b. State the guidelines for safe drug administration.
 - c. Identify the various methods and routes of administration of medication.
 - d. State the advantages and disadvantages of each medication route.
5. Discuss medication orders from the physician.
 - a. Identify and define the standard abbreviations and symbols used in prescribing and administering medications.
 - b. List the nine parts of a prescription.
 - c. Discuss the different types of medication orders.
6. Identify special considerations related to administering medications to infants and children.
 - a. Calculate medication dosages for children.
 - b. Discuss preferred routes of administration of medication.
 - c. State preferred sites of intramuscular (IM) injections in children.

CAAHEP Standards

COGNITIVE

- I.C.10 Identify the classifications of medications including:
 - a. indications for use
 - b. desired effects
 - c. side effects
 - d. adverse reactions
- II.C.1 Define basic units of measurement in:
 - a. the metric system
 - b. the household system
- II.C.2 Identify abbreviations and symbols used in calculating medication dosages

PSYCHOMOTOR

- II.P.1 Calculate proper dosages of medication for administration
- II.P.4 Apply mathematical computations to solve equations
- II.P.5 Convert among measurement system

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self awareness

Course Number and Name: MET 1911 Medical Assisting Technology Seminar I

Description:

This course is designed for students to participate in activities of various professional organizations such as the Medical Assisting Technology Student Organization, HOSA and other student activities. Leadership skills, an understanding of group dynamics, educational enrichment, stimulation of enthusiasm and interest, community service and rapport among health education professionals are outcomes of this course. One hour per week with additional activities to meet organizational goals.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
1	1		15

Prerequisite:

Instructor Approved

Student Learning Outcomes:

1. Demonstrate interaction and cooperation in the modern workplace
 - a. Demonstrate communication skills by actively participating in program and campus activities.
 - b. Evaluate new materials added to the classroom.
2. Implement community participation
 - a. Actively participate in a class organized community service project.

Course Number and Name: MET 1921 Medical Assisting Technology Seminar II

Description: This course is designed for students to participate in activities of various professional organizations such as the Medical Assisting Technology Student Organization, HOSA and other student activities. Leadership skills, an understanding of group dynamics, educational enrichment, stimulation of enthusiasm and interest, community service and rapport among health education professionals are outcomes of this course. One hour per week with additional activities to meet organizational goals.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
1	1		15

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Interaction and cooperation in the modern workplace
 - a. Demonstrate problem-solving skills by actively participating in program and campus activities.
 - b. Locate and utilize local resource sources.
2. Community participation
 - a. Actively participate in a class organized community service project.

Course Number and Name: MET 1931 Medical Assisting Technology Seminar III

Description: This course is designed for students to participate in activities of various professional organizations such as the Medical Assisting Technology Student Organization, HOSA and other student activities. Leadership skills, an understanding of group dynamics, educational enrichment, stimulation of enthusiasm and interest, community service and rapport among health education professionals are outcomes of this course. One hour per week with additional activities to meet organizational goals.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
1	1		15

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Interaction and cooperation in the modern workplace
 - a. Demonstrate problem-solving skills by actively participating in program and campus activities.
 - b. Locate and utilize local resource sources.
2. Community participation
 - a. Actively participate in a class organized community service project.

Course Number and Name: **MET 2224 Computer Concepts for Medical Assistants**

Description: This course will introduce students to the capabilities of a medical practice management software program typical of those currently used in doctors' offices. After completion of this course, students will have knowledge about working with patient accounts, insurance claim forms, and handling reports dealing with management of the medical practice.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	2	4	90

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss practice management data.
 - a. Describe the flow of information in the medical office.
 - b. Discuss the role of computers in today's medical office.
 - c. Discuss hardware and software maintenance and technical support.
 - d. Discuss the purpose of the medical billing software.
2. Enter patient information and billing data.
 - a. Enter patient account information.
 - b. Describe the relationships of the guarantor and patient.
 - c. Explain the process of posting accounts.
 - d. Modify or correct a patient account.
 - e. Post payments from accounts.
 - f. Make posting adjustments from the procedure entry screen.
 - g. Make posting adjustments from the payment entry screen.
3. Generate super bills, billing statements, and insurance claim forms.
 - a. Discuss functions of a super bill for various medical specialties.
 - b. Post charges from a super bill to a patient's account.
 - c. Explain several methods for billing patients on a regular basis.
 - d. Print patient statements.
 - e. Describe three methods for collecting insurance payments.
4. Age accounts receivable.
 - a. Discuss the account aging process.
 - b. Explain the purpose and importance of a period, close, and purge.
5. Print patient and practice reports

PSYCHOMOTOR

- VI.P.3 Input patient data using an electronic system
VII.P.2 Input accurate billing information in an electronic system

AFFECTIVE

- A.1 Demonstrate critical thinking skills
A.2 Reassure patients
A.3 Demonstrate empathy for patients' concerns
A.4 Demonstrate active listening
A.5 Respect diversity
A.6 Recognize personal boundaries
A.7 Demonstrate tactfulness

A.8 Demonstrate self-awareness

Course Number and Name: **MET 2234 Medical Insurance**

Description: The purpose of this course is to acquaint the student with different types of insurance plans including commercial plans, government plans, disability, worker's compensation, and managed care plans. Practical approach to insurance billing, basic medical and insurance abbreviations, terminology, and ICD-9 and 10-CM and CPT coding will be presented.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
4	3	2	75

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Perform procedural and diagnostic coding.
 - a. Locate the correct CPT and ICD-9 and 10 CM codes.
 - b. Identify the importance and use of modifiers in coding.
 - c. State the meaning of basic abbreviations and symbols in the code books.
2. Describe the life cycle of a health insurance claim form.
 - a. Abstract from the patient record the information for completing an insurance claim form.
 - b. Process the Universal Health Insurance Claim Form.
 - c. Monitor third-party reimbursement.
 - d. Utilize effective oral or written communication with insurance companies regarding erroneous payments.
 - e. Describe electronic claims transmission.
3. Analyze and apply current third-party guidelines.
 - a. Define the major classes of health insurance contracts.
 - b. Give examples of federal, state, and private insurance plans.
 - c. Define common insurance, medical, and diagnostic terms.
 - d. Differentiate among usual, customary, and reasonable fees.
 - e. Cite the essential features of the commercial plans, government plans, worker's compensation, and disability.
4. Recognize and adhere to managed care policies and procedures.
 - a. Define a Prepaid Health Plan (PHP).
 - b. Identify the types of prepaid health plans.
 - c. Define independent practice associations (IPA).
 - d. Define preferred provider organizations (PPO).
 - e. Discuss professional review organizations (PROs).
 - f. Discuss managed care referrals and precertifications.

CAAHEP Standards

COGNITIVE

- VIII.C.1 Identify:
 - a. types of third-party plans
 - b. steps for filing 3rd party plan
- VIII.C.2 Identify managed care requirements for patient referral
- VIII.C.3 Identify processes for:
 - a. verification of eligibility for services
 - b. precertification/preauthorization
 - c. tracking unpaid claims
 - d. claims denials and appeals
- VIII.C.4 Identify fraud and abuse as they relate to 3rd party reimbursement
- VIII.C.5 Define the following:
 - a. bundling and unbundling of codes
 - b. advanced beneficiary notice (ABN)
 - c. allowed amount
 - d. deductible
 - e. co-insurance
 - f. co-pay
- VIII.C.6 Identify the purpose and components of the Explanation of Benefits (EOB) and Remittance Advice (RA) Statements
- IX.C.1 Identify the current procedural and diagnostic systems, including Healthcare Common Procedure Coding Systems II (HCPCS Level II)
- IX.C.2 Identify the effects of:
 - a. upcoding
 - b. downcoding
- IX.C.3 Define medical necessity

PSYCHOMOTOR

- VIII.P.1 Interpret information on an insurance card
- VIII.P.2 Verify eligibility for services
- VIII.P.3 Obtain precertification or preauthorization with documentation
- VIII.P.4 Complete an insurance claim form
- VIII.P.5 Assist a patient in understanding an Explanation of Benefits (EOB)
- IX.P.1 Perform procedural coding
- IX.P.2 Perform diagnostic coding
- IX.P.3 Utilize medical necessity guidelines

AFFECTIVE

- A.1 Demonstrate critical thinking skills
- A.2 Reassure patients
- A.3 Demonstrate empathy for patients' concerns
- A.4 Demonstrate active listening
- A.5 Respect diversity
- A.6 Recognize personal boundaries
- A.7 Demonstrate tactfulness
- A.8 Demonstrate self-awareness

Course Number and Name: **MET 2334 Medical Laboratory for Medical Assistants**

Description: This course covers techniques of the clinical laboratory including competent use of the microscope and understanding the theory and knowledge of the common laboratory tests performed in the physician's office. Students will develop proficiency in laboratory and quality assurance procedures including collection, preparation and processing of specimens, urinalysis, hematology, and accurate reporting of test results.

Hour Breakdown:	Semester Credit Hours	Lecture	Lab	Contact Hours
	4	3	2	75

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. State the organization and function of the medical laboratory.
 - a. List the organization and function of the medical laboratory.
 - b. Describe the departments within a medical laboratory.
2. Manage the physician's office laboratory.
 - a. Comply with established risk management and safety procedures.
 - b. Comply with federal Clinical Laboratory Improvement Amendments (CLIA) regulations.
 - c. Explain the proper care, use, function, and storage of the microscope.
 - d. Perform an inventory of supplies and equipment.
 - e. Operate and perform routine maintenance of clinical equipment.
 - f. Practice standard precautions.
 - g. Dispose of biohazardous materials according to OSHA guidelines.
3. Collect and process clinical specimens.
 - a. Discuss the hazards in a medical laboratory.
 - b. Discuss and practice laboratory safety procedures.
 - c. Perform capillary and venipuncture.
 - d. Obtain specimens for microbiological testing.
 - e. Instruct patients in the collection of a clean-catch midstream urine specimen.
 - f. Demonstrate wound collection procedure for microbiological testing.
4. Perform selected laboratory tests that assist with diagnosis and treatment.
 - a. Perform CLIA waived tests to include:
 1. urinalysis
 2. hematology
 3. chemistry
 4. immunology
 5. microbiology
 - b. Prepare a microhematocrit sample
 - c. Perform manual and automated hematology procedures.
 - d. Describe the interaction of blood vessels, platelets, coagulation factors, and fibrinolytic systems in normal and abnormal homeostasis.
 - e. Perform a kit test.
 - f. Explain the properties involved in the physical, chemical, and microscopic examination of urine.
 - g. Correlate results of urinalysis with clinical conditions.
 - h. Record laboratory results accurately.
 - i. Solve laboratory mathematics problems.

5. Screen and follow up patient test results.
 - a. Briefly describe the function, composition, normal values, and characteristics of blood.
 - b. Discuss common blood disorders.
6. Comply with quality assurance practices.
 - a. Define accuracy and precision.
 - b. Perform quality control procedures.
 - c. Explain the importance of quality control in the physician's office laboratory, plot quality control results, and interpret these results.
 - d. Discuss erroneous results due to equipment error.
7. Identify terminology commonly related to nutrition.
 - a. Describe the functions and effects of water in the human body.
 - b. Recall the classification, functions and types of carbohydrates.
 - c. Identify the sources functions and types of lipids in the human body.
 - d. Recall the composition, classifications, sources, and functions of proteins.
 - e. Identify the different types of water soluble and fat soluble vitamins and their benefits for the human body.
 - f. Recall major minerals and trace elements.
 - g. Recall the dietary guidelines and the food plate developed by the U.S. Department of Agriculture.
 - h. Identify food related diseases with special dietary needs.

CAAHEP Standards

COGNITIVE

- I.C.9 Identify Clinical Laboratory Improvement Amendments (CLIA) waived tests associated with common diseases
- I.C.11 Identify quality assurance practices in healthcare
- II.C.3 Identify normal and abnormal results as reported in:
 - a. graphs
 - b. tables
- IV.C.1 Identify dietary nutrients including:
 - a. carbohydrates
 - b. fat
 - c. protein
 - d. minerals
 - e. electrolytes
 - f. vitamins
 - g. fiber
 - h. water
- IV.C.2 Identify the function of dietary supplements
- IV.C.3 Identify the special dietary needs for:
 - a. weight control
 - b. diabetes
 - c. cardiovascular disease
 - d. hypertension
 - e. cancer
 - f. lactose sensitivity
 - g. gluten-free
 - h. food allergies
 - i. eating disorders
- IV.C.4 Identify the components of a food label
- XII.C.1 Identify workplace safeguards
- XII.C.2 Identify safety techniques that can be used in responding to accidental exposure to:

- a. blood
- b. other body fluids
- c. needle sticks
- d. chemicals

XII.C.3 Identify fire safety issues in an ambulatory healthcare environment

XII.C.4 Identify emergency practices for evacuation of a healthcare setting

PSYCHOMOTOR

I.P.2 Perform the following procedures:

- b. venipuncture
- c. capillary puncture

I.P.10 Perform a quality control measure

I.P.11 Collect specimens and perform:

- a. CLIA waived hematology test
- b. CLIA waived chemistry test
- c. CLIA waived urinalysis
- d. CLIA waived immunology test
- e. CLIA waived microbiology test

II.P.2 Record laboratory test results into the patient's record

IV.P.1 Instruct a patient regarding a dietary change related to patient's special dietary needs

XII.P.1 Comply with safety practices

XII.P.2 Demonstrate proper use of:

- a. eyewash equipment
- b. fire extinguishers

XII.P.4 Evaluate an environment to identify unsafe working conditions

AFFECTIVE

A.1 Demonstrate critical thinking skills

A.2 Reassure patients

A.3 Demonstrate empathy for patients' concerns

A.4 Demonstrate active listening

A.5 Respect diversity

A.6 Recognize personal boundaries

A.7 Demonstrate tactfulness

A.8 Demonstrate self-awareness

Course Number and Name: **MET 2613 Clinical Review**

Description: This summary course is designed to review the skills, knowledge, and abilities acquired during the didacticum. This course will serve to assist the student in preparing for the certification exam, with a review of critical clinical skills and professional development issues.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	3	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Apply test taking strategies and study skills.
 - a. Demonstrate the ability and apply selected study and test taking strategies.
 - b. Demonstrate familiarity with the available national credentialing exam format.
 - c. Assess individual knowledge weaknesses, and improve these weaknesses.
2. Prepare for the National Certification Exam.
 - a. Discuss national certification and continuing education.
 - b. Review specific content areas for the available national credentialing exam format.
 - c. Take mock certification exams for practice.

Course Number and Name: **MET 2716 Practicum**

Description: This course includes supervised experience in medical offices to provide the student with a comprehensive application of administrative and clinical skills. This course is designed to give the student an opportunity to discuss, evaluate, and share learning experiences and to strengthen learning situations brought up in the practicum setting.

Hour Breakdown:

Semester Credit Hours	Lecture	Clinical	Contact Hours
6	1	15	240

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Perform clerical functions.
 - a. Schedule and manage appointments.
 - b. Schedule inpatient and outpatient admissions and procedures.
 - c. Maintain a patient's medical record.
2. Perform bookkeeping procedures.
 - a. Perform end of day reconciliation.
 - b. Perform accounts receivable procedures.
 - c. Perform billing and collection procedures.
3. Process insurance claims.
 - a. Apply managed care policies and procedures.
 - b. Apply third-party guidelines.
 - c. Perform procedural coding.
 - d. Perform diagnostic coding.
 - e. Complete insurance claim forms.
4. Apply fundamental clinical procedures.
 - a. Utilize aseptic technique and infection control.
 - b. Wrap items for autoclaving.
 - c. Perform sterilization techniques.
 - d. Dispose of biohazardous materials.
 - e. Practice standard precautions.
5. Perform specimen collection.
 - a. Perform venipuncture.
 - b. Perform capillary puncture.
 - c. Obtain specimens for microbiological testing.
 - d. Instruct patients in the collection of a clean; catch midstream urine specimen.
 - e. Instruct patients in the collection of fecal specimens.
6. Perform diagnostic testing.
 - a. Perform electrocardiography.
 - b. Perform respiratory testing.
 - c. Perform CLIA waived tests.
 - 1) urinalysis.
 - 2) hematology

- 3) chemistry
- 4) immunology
- 5) microbiology

- 7. Provide patient care.
 - a. Perform patient screening.
 - b. Obtain vital signs.
 - c. Obtain and record patient history.
 - d. Prepare, maintain, and clean examination and treatment areas.
 - e. Prepare patient for and assist with routine and specialty examinations.
 - f. Prepare patient for and assist with procedures, treatments, and minor office surgeries.
 - g. Apply pharmacology principles to prepare and administer oral and parenteral (excluding IV) medications.
 - h. Maintain medication and immunization records.
 - i. Screen and follow up test results.
- 8. Employ professional communications.
 - a. Respond to and initiate written communications.
 - b. Recognize and respond to verbal communications.
 - c. Recognize and respond to nonverbal communications.
 - d. Demonstrate telephone techniques.
- 9. Practice legal concepts.
 - a. Identify and respond to issues of confidentiality.
 - b. Perform within legal and ethical boundaries.
 - c. Establish and maintain the medical record.
 - d. Document appropriately.
 - e. Demonstrate knowledge of federal and state health-care legislation and regulations.
- 10. Demonstrate patient instruction.
 - a. Explain general office policies.
 - b. Instruct individuals according to their needs.
 - c. Provide instruction for health maintenance and disease prevention.
 - d. Identify community resources.
- 11. Maintain operational functions.
 - a. Perform an inventory of supplies and equipment.
 - b. Perform routine maintenance of administrative equipment.
 - c. Utilize computer software to maintain office systems.
 - d. Use methods of quality control.

Course Number and Name: MET 291 (1-3) Special Project in Medical Assisting

Description: A course designed to provide the student with practical application of skills and knowledge gained in the courses. The instructor works closely with the student to insure that the selection of a project will enhance the student's learning experience.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Contact Hours
3	0	2-6	

Prerequisite: Instructor approved

Student Learning Outcomes:

1. Develop a written plan which details the activities and projects to be completed.
 - a. Utilize a written plan which details the activities and projects to be done.
 - b. Perform written occupational objectives.
2. Assess accomplishment of objectives.
 - a. Prepare daily written assessment of accomplishment of objectives.
 - b. Present weekly written report to instructor on activities done.
3. Utilize a set of written guidelines for the special project.
 - a. Develop and follow a set of written guidelines.

Course Number and Name: WBL I, II, III, III, IV, V, and VI
WBL 191(1-3), WBL 192(1-3), WBL 193(1-3), WBL 291(1-3), WBL 292(1-3), and WBL 293(1-3)

Description: A structured work-site learning experience in which the student, program area teacher, Work-Based Learning Coordinator, and worksite supervisor/mentor develop and implement an educational training agreement. Designed to integrate the student's academic and technical skills into a work environment. May include regular meetings and seminars with school personnel and employers for supplemental instruction and progress reviews.

Hour Breakdown:	Semester Credit Hours	Lecture	Externship	Contact Hours
	1-3	0	3-9	

Prerequisite: Instructor approved

Student Learning Outcomes:

1. Apply technical skills and related academic knowledge needed to be a viable member of the workforce.
 - a. Demonstrate technical skills necessary to complete job requirements.
 - b. Demonstrate academic skills necessary to complete job requirements.
 - c. Perform tasks detailed in an educational training agreement at the work setting.
2. Apply general workplace skills to include positive work habits necessary for successful employment.
 - a. Demonstrate appropriate human relationship skills in the work setting to include conflict resolution, team participation, leadership, negotiation, and customer/client service.
 - b. Utilize time, materials, and resource management skills.
 - c. Use critical thinking skills such as problem solving, decision making, and reasoning.
 - d. Acquire, evaluate, organize, maintain, interpret, and communicate information.

Appendix A: Recommended Tools and Equipment

CAPITALIZED ITEMS

1. Arm, injectable training (1 per 2 students)
2. Chemistry analyzer, dry slide (1 per program)
3. Chemistry analyzer (wet) with reagent set (1 per program)
4. Centrifuge, table top (2 per program)
5. ECG machine with stand (2 per program)
6. Examination table (2 per program)
7. Eye wash station (1 per program)
8. Hematology analyzer, automated (1 per program)
9. Micro-Hematocrit centrifuge (1 per program)
10. Intramuscular training buttocks (1 per program)
11. Manikin, child size (2 per program)
12. Manikin, CPR adult (2 per program)
13. Manikin, CPR baby (2 per program)
14. Microscope, oil immersion (1 per student)
15. Ophthalmoscope/otoscope combination (1 per program)
16. Refractometer (1 per program)
17. Scale, physician (1 adult and 1 pediatric per program)
18. Semi automated cell counter (1 per program)
19. Wheelchair, adult (1 per program)
20. Autoclave (1 per program)
21. Spirometer (1 per program)
22. Computer, color with accessories (1 per student)
23. Printer, laser (1 per 2 computers)
24. Manikin, Adult Advanced Care (1 per program)
25. Trainer Ear Irrigation (1 per program)
26. Phlebotomy Training Arm (1 per 2 students)
27. Cholesterol Point of Care Instrument (1 per program)
28. PT INR Meter (1 per program)

NON-CAPITALIZED ITEMS

1. Cabinet, file (lateral) (1 per program)
2. Percussion hammer (1 per program)
3. Stethoscope, dual teaching (1 per program)
4. Glucometer (5 per program)
5. Lamp, gooseneck (3 per program)
6. Mayo tray and stand (3 per program)
7. Thermometer, digital (1 per program)
8. Thermometer, electronic (1 per program)
9. Thermometer, temporal (1 per program)
10. Thermometer, tympanic (1 per program)
11. Treatment cabinet (1 per program)
12. Bandages, triangular (10 per program)
13. Bandages, Ace-type (1 set of assorted widths and sizes)
14. Ishihara color blindness chart (1 per program)
15. Slide drying racks (1 per 2 students)
16. Snellen Eye Chart (1 per program)

17. Sphygmomanometer, wall mount (aneroid) (1 per program)
18. Sphygmomanometer, free standing (aneroid) (1 per 2 students)
19. Sphygmomanometer (electronic) (1 per program)
20. Jaeger Eye Chart (1 per program)
21. Pulse Oximeters (2 per program)
22. Printing Calculators (1 per student)
23. Instruments, Minor Surgical (variety)
24. Instruments, Speculums (variety)
25. Stethoscope (1 per 2 students)

It is recommended that instructors have access to the following items:

1. Television (1 per room)
2. VCR/DVD (1 per program)
3. ELMO presentation system (1 per program)
4. Projector, overhead (1 per room)
5. Interactive whiteboard (1 per program)
6. iPads (1 per instructor)
7. Lumens "Ladybug" Document Camera

Appendix B: Curriculum Definitions and Terms

Course Name – A common name that will be used by all community colleges in reporting students

Course Abbreviation – A common abbreviation that will be used by all community and junior colleges in reporting students

Classification – Courses may be classified as the following:

- Career Certificate Required Course – A required course for all students completing a career certificate.
- Technical Certificate Required Course – A required course for all students completing a technical certificate.
- Technical Elective – Elective courses that are available for colleges to offer to students.

Description – A short narrative that includes the major purpose(s) of the course

Prerequisites – A listing of any courses that must be taken prior to or on enrollment in the course

Corequisites – A listing of courses that may be taken while enrolled in the course

Student Learning Outcomes – A listing of the student outcomes (major concepts and performances) that will enable students to demonstrate mastery of these competencies

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75% of the time allocated to each course.

The remaining 25% of each course should be developed at the local district level and may reflect the following:

- Additional competencies and objectives within the course related to topics not found in the state framework, including activities related to specific needs of industries in the community college district
- Activities that develop a higher level of mastery on the existing competencies and suggested objectives
- Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed or revised
- Activities that include integration of academic and career–technical skills and course work, school-to-work transition activities, and articulation of secondary and postsecondary career–technical programs
- Individualized learning activities, including work-site learning activities, to better prepare individuals in the courses for their chosen occupational areas

Sequencing of the course within a program is left to the discretion of the local college. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors. Programs that offer an Associate of Applied Science Degree must include all of the required Career Certificate courses, Technical Certificate courses **AND** a minimum of 15 semester hours of General Education Core Courses. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester. Each community college specifies the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science Degree at their college.

In order to provide flexibility within the districts, individual courses within a framework may be customized by doing the following:

- Adding new student learning outcomes to complement the existing competencies and suggested objectives in the program framework.
- Revising or extending the student learning outcomes
- Adjusting the semester credit hours of a course to be up 1 hour or down 1 hour (after informing the Mississippi Community College Board [MCCB] of the change)

Appendix C: Course Crosswalk

Course Crosswalk Medical/ Clinical Assisting Technology CIP 51.0801					
Note: Courses that have been added or changed in the 2015 curriculum are highlighted.					
Existing			Revised		
2015 Curriculum			2022 Curriculum		
Course Number	Course Title	Hours	Course Number	Course Title	Hours
MET 1113	Medical Terminology	3	MET 1113	Medical Terminology	3
MET 1313	Clinical Procedures I	3	MET 1313	Clinical Procedures I	3
MET 1513	Pharmacology for Medical Assistants	3	MET 1513	Pharmacology for Medical Assistants	3
MET 1214	Medical Business Practices	4	MET 1214	Medical Business Practices	4
MET 1323	Clinical Procedures II	3	MET 1323	Clinical Procedures II	3
MET 1413	Medical Law Ethics	3	MET 1413	Medical Law Ethics	3
MET 2334	Medical Laboratory for Medical Assistants	4	MET 2334	Medical Laboratory for Medical Assistants	4
MET 2234	Medical Insurance	4	MET 2234	Medical Insurance	4
MET 2716	Practicum	6	MET 2716	Practicum	6
MET 2613	Clinical Review	3	MET 2613	Clinical Review	3
CRPT 1113 OR CPT 1324 OR CSC1123 OR BOT 1133 OR BAD 2533	Fundamentals of Microcomputer Applications OR Survey of Microcomputer Applications OR Computer Applications I OR Microcomputer Applications OR Computer Applications in Business & Industry	3/4	CRPT 1113 OR CPT 1324 OR CSC1123 OR BOT 1133 OR BAD 2533	Fundamentals of Microcomputer Applications OR Survey of Microcomputer Applications OR Computer Applications I OR Microcomputer Applications OR Computer Applications in Business & Industry	3/4
			MET 291 (1-3)	Special Project in Medical Assisting	1-3
			WBL I, II, III, III, IV, V, and VI WBL 191(1-3), WBL 192(1-3), WBL 193(1-3), WBL	Work Based Learning	1-3

			291(1-3), WBL 292(1-3), and WBL 293(1-3)		
			MET 291 (1-3)	Special Project in Medical Assisting	1-3

Appendix D: Recommended Textbook List

Recommended Medical/Clinical Assistant Text Book List CIP 51.0801 – (Medical/ Clinical Assisting Technology)		
Book Title	Author (s)	ISBN
Comprehensive Medical Terminology for Health Professions, 1st Ed/2023	C.Schroeder, L.Ehrlich, K.Schroeder, A.Ehrlich	9780357512708
Exploring Medical Language, 10th Ed/2018	LaFleur Brooks	9780323396465
Medical Terminology Systems, 8th Ed/ 2017	Gyls	9780803658677
Medical Office Procedures 10th Ed/2021	Nenna Bayes	9781264111251
Clinical Procedures for the Medical Assistants Textbook and Workbook 10th Ed 2018	Bonewit-West	9780323377119
Medical Assisting: Administrative & Clinical Competencies, Textbook and Workbook, 9th Ed/2022	Michelle Blesi	9780357502815 9780357502822
Law and Ethics for the Health Professions, 9th Ed 2021	Judson and Harrison	9781260021943
Applied Law and Ethics in Health Care, 1st Ed/2023	Wendy Mia Pardew	9780357623923
Medical Law and Ethics 6th Ed 2020	Fremgen	9780135414521
Principles of Pharmacology for Medical Assisting, 6th Ed/2017	Jane Rice	9781305859401
Pharmacology Clear and Simple 4th Ed 2022	Watkins	9781719644747
MindTap MOSS 3.0, 1st Ed/2019	Cengage	9781337626378
Understanding Health Insurance: A Guide to Billing and Reimbursement, Textbook and Workbook 17th Ed/2023	Michelle Green	9780357621387 9780357378649 9780357378656
Insurance Handbook for the Medical Office Textbook and Workbook 15 th Ed, 2021	Fordney	9780323594400
Medical Assisting Review: Passing the CMA, RMA, and CCMA Exams, 7th Ed/2022	Jahangir Moini	9781260021790
Medical Assisting Exam Review Online 3.0, 3rd Ed/2021	Cengage	9780357426289
Medical Assisting Exam Review: 6th Ed, 2021	Deborah Holmes	9780323734127