MEDICAL ASSISTING

The Medical Assisting Program at Mount Wachusett Community College provides students with the opportunity to earn a Medical Assisting Certificate or Associate of Science Degree in Medical Assisting. Upon completion of the program, students are prepared for positions as medical assistants and can work in a variety of medical settings. During the course of study, students will develop skills and competencies in clinical and administrative duties. Students will gain knowledge in patient care and operational functions.

MEDICAL ASSISTING DEGREE (MAS)

Medical assistants perform a combination of clinical and administrative duties. Clinical duties include assisting doctors with examinations, drawing blood, placing patients in rooms, administering immunizations, removing sutures, assessing vital signs, and applying wound care. Administrative duties include scheduling appointments, answering phones, billing insurance companies, making referrals, and phoning in prescriptions. Because medical assistants work in an office environment, most work regular day-time hours. Students who complete the Medical Assisting Certificate (MASC) can continue to complete the Medical Assisting Degree. Clinical courses are offered only during the day. This degree is particularly beneficial to students who are interested in the completion of an associate degree to advance their employment in the medical field.

Year 1
Fall
Cycle 1
MAS 105 Introduction to Medical Assisting 1 2
MAS 130 Medical Terminology and the Body Systems I 1 4
Cycle 2
MAS 131 Medical Terminology and the Body Systems II 4
MAS 209 Medical Law and Ethics 2
Full Term
MAS 206 Medical Assisting Clinical and Lab Procedures 4
Spring
Cycle 1
MAS 208 Principles Of Pharmacology 3
MAS 230 Medical Administrative Procedures I 1 4
Cycle 2
MAS 240 Medical Assisting Seminar 1 2
MAS 250 Medical Assisting Externship 1 4

Year 2
Fall
ENG 101 College Writing I 3
MAT 143 Statistics 3
MAS 207 Medical Specialty Procedures 4
PSY 105 Introduction To Psychology 3
BIO 109 Concepts in Biology 4
Spring
Cycle 2
MAS 231 Medical Administrative Procedures II 4
Full Semester
ENG 102 College Writing II 3
PSY 110 Human Growth And Development 3
MAS 260 Basic Pathophysiology 3
Humanities Elective 2 3

Total Credits: 62

1 A minimum grade of C+ or better is required for all MAS courses.
2 Humanities Electives: See Elective Courses by Abbreviation (http://catalog.mwcc.edu/electivecoursesbyabbreviation/).

Student Success Tips

Some courses are offered only during one semester per academic year (fall or spring); students should become aware of this restriction and register for these courses when they are offered.
Students are expected to have proficient computer skills and the ability to access the internet via desktop/laptop computer or tablet. Internet access may be from home or through a public site, such as a local public library, public college or at any Mount Wachusett Community College campus.

**Transfer Options**
For transfer options, please click here. (http://catalog.mwcc.edu/academicresources/#transferinformationtext)

**Special Requirements**
Technical standards must be met with or without accommodations. Students must pass all MAS courses with a C+ or better to remain in good standing in the MAS program.

Students seeking to participate in the medical assisting program may be subject to meeting additional technical standards and requirements which may include immunizations, CPR certification, health insurance and liability insurance.

As part of the coursework in the medical assisting program, students are required to complete practical hours in clinical facilities working with patients/clients under the supervision of licensed providers. Some clinical sites require the student obtain certain background checks (state/federal criminal or sexual offender), fingerprinting and/or drug testing before participating in clinical experiences. Costs for certain criminal background checks and drug testing are the responsibility of the student. All screenings and background checks are completed AFTER admission/acceptance into the medical assisting program. Because of these required screenings, students may be required to register early for these courses. Please check for specific deadlines on the course listing for each semester.

The prospective student is encouraged to discuss any concerns with the program director. A positive background check, positive drug screen or refusal to comply in these background checks or drug testing will result in the inability to participate in clinical experiences required in the program.

**Please note:** Marijuana, though legal in Massachusetts, is recognized as a controlled substance by the federal government. Marijuana use whether for medicinal or recreational purposes will lead to a positive drug test; making the student ineligible to attend a practicum site.

**Certification**
Graduates of the accredited Medical Assisting Certificate Program (MASC) are eligible to become certified by taking and passing the national Certified Clinical Medical Assistant (CCMA) exam through National Healthcareer Association (NHA). This opportunity is available following the successful completion of the certificate program during the first year of the degree program.

**Career Options/Earning Potential**
MEDICAL ASSISTING CERTIFICATE (MASC)

Medical assistants perform a combination of clinical and administrative duties. Clinical duties include assisting doctors with examinations, drawing blood, placing patients in rooms, administering immunizations, removing sutures, assessing vital signs, and applying wound care. Administrative duties include scheduling appointments, answering phones, billing insurance companies, making referrals, and phoning in prescriptions. Because medical assistants work in an office environment, most work regular day-time hours with no weekends or holidays. Upon successful completion of the Medical Assisting Certificate, graduates will be eligible to sit for a certification exam as a medical assistant and seek employment as a certified clinical medical assistant. Courses completed as part of this certificate program can be applied to the Medical Assisting Degree program.

Year 1

Fall

<table>
<thead>
<tr>
<th>Cycle 1</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MAS 105 Introduction to Medical Assisting</td>
<td>2</td>
</tr>
<tr>
<td>MAS 130 Medical Terminology and the Body Systems I</td>
<td>4</td>
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<tr>
<td>Cycle 2</td>
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<tr>
<td>MAS 209 Medical Law and Ethics</td>
<td>2</td>
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<td>4</td>
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<td>MAS 206 Medical Assisting Clinical and Lab Procedures</td>
<td>4</td>
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</tbody>
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| Spring | Credits |
| Cycle 1 | |
| MAS 230 Medical Administrative Procedures I | 4 |
| MAS 208 Principles Of Pharmacology | 3 |
| Cycle 2 | |
| MAS 240 Medical Assisting Seminar | 2 |
| MAS 250 Medical Assisting Externship | 4 |

Total Credits: 29

Student Success Tips

Some courses are offered only in the semester they are shown in the guide; students must register for these courses when they are offered. It is strongly suggested that students take ENG 101 College Writing I during the summer session.

Students are expected to have proficient computer skills and the ability to access the internet via desktop/laptop computer or tablet. Internet access may be from home or through a public site, such as a local public library, public college or at any Mount Wachusett Community College campus.

Special Requirements

Technical standards must be met with or without accommodations. Students must pass all MAS courses with a C+ or better to remain in good standing in the MAS program.

Students seeking to participate in the medical assisting program may be subject to meeting additional technical standards and requirements which may include immunizations, CPR certification, health insurance and liability insurance.

As part of the coursework in the certificate, students are required to complete practical hours in clinical facilities working with patients/clients under the supervision of licensed providers. Some clinical sites require the student obtain certain background checks (state/federal criminal or sexual offender), fingerprinting and/or drug testing before participating in clinical experiences. Costs for certain criminal background checks and drug testing are the responsibility of the student. All screenings and background checks are completed AFTER registration in the coursework. Because of these required screenings, students may be required to register early for these courses. Please check for specific deadlines on the course listing for each semester.

The prospective student is encouraged to discuss any concerns with the dean. A positive background check, positive drug screen or refusal to comply in these background checks or drug testing will result in the inability to participate in clinical experiences required in the certificate.

Please note: Marijuana, though legal in Massachusetts, is recognized as a controlled substance by the federal government. Marijuana use whether for medicinal or recreational purposes will lead to a positive drug test; making the student ineligible to attend a practicum site.
Certification
Graduates of MWCC’s accredited program can become certified by taking and passing the national Certified Clinical Medical Assistant (CCMA) exam through National Healthcareer Association (NHA).

Career Options/Earning Potential

PROGRAM STUDENT LEARNING OUTCOMES FOR MAS (DAYS ONLY) AND MASC
Upon graduation from these programs, students will demonstrate the following administrative, clinical, and transdisciplinary competencies:

• Manage clerical functions and bookkeeping procedures required of the medical office
• Complete special accounting entries and insurance claims with accuracy
• Collect and process specimens
• Complete in-office diagnostic testing
• Provide competent patient care and patient management during the office visit
• Engage in effective and accurate written, oral and non-verbal communication
• Define and demonstrate necessary legal concepts
• Provide accurate patient instruction
• Manage all necessary operational functions

TECHNICAL STANDARDS ¹ FOR MAS

¹ For general information about technical standards and accommodation, see Technical Standards. (http://catalog.mwcc.edu/academicresources/academicandgradingpolicies/technicalstandards/)

Students entering this program must be able to demonstrate the ability to:

• Comprehend textbook material at the 11th grade level.
• Communicate and assimilate information either in spoken, printed, signed, or computer voice format.
• Gather, analyze, and draw conclusions from data.
• Be able to type 30 words per minute for three minutes with three or fewer errors using the "touch" method of typing.
• Distinguish shapes and colors under a microscope.
• Read typewritten text and patient data from a computer screen with or without corrective devices.
• Discriminate color in order to identify reagents and other materials such as laboratory media, stained preparations, and the physical properties of various body fluids.
• Possess the manual dexterity required in such tasks as performing phlebotomy; operating blood analyzers and laboratory information systems; handling small containers of potentially biohazardous specimens (one inch by one inch); using sample measuring devices such as pipettes; giving injections and being able to adequately focus and manipulate a microscope and, using the small muscle dexterity necessary to do such tasks as gloving, gowning, and operating controls on machinery.
• Traverse the hospital and laboratory corridors, passageways, and doorways (minimum width, three feet).
• Stand independently without external support for extended periods of time.
• Communicate with patients and staff in the English language.
• Maintain cleanliness and personal grooming consistent with close personal contact.
• Possess hearing with or without corrective devices to be able to transcribe medical dictation from recorded media.
• Comprehend and respond to the spoken word of all age-specific groups.
• Function without causing harm to self or others if under the influence of prescription or over-the-counter medications.
• React quickly, both mentally and physically.
• Work as a member of a team.
• Remain calm, rational, decisive, and in control at all times, especially during emergency situations.
• Identify behaviors that would endanger a person’s safety and intervene quickly, with an appropriate solution, in a crisis situation.
• Exhibit social skills appropriate to professional interactions.
• Respond to distress sounds, visual distress cues, emergency alarms, and vital sign assessment equipment with or without corrective devices.

MAS 102. Medical Terminology. 3 Credits.
This course provides students with a clear understanding of medical vocabulary. A workbook-text format is used to develop word-building activities that guide students through exercises that teach and reinforce medical terminology. Numerous and varied activities challenge students to understand and remember the significant concepts of medical word building. The online Medical Language Lab and the DavisPlus Resource Center provide reinforcement of pronunciation, spelling, definition of medical words, and basic anatomy and physiology of the body systems. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

MAS 105. Introduction to Medical Assisting. 2 Credits.
This course provides a general overview of the medical assisting profession that includes historical perspectives of the profession, scope of practice, career opportunities and the various credentialing organizations for medical assistants. It includes an overview of the various administrative and clinical responsibilities performed by medical assistants in a healthcare facility. Topics included are various types of communication and coping skills, therapeutic approach as well as communication skills, and their significance in relation to the medical assistant’s role in healthcare. An introductory concept on the use of Electronic Health Records (EHR) is also covered that provides a general orientation about the software and how it is utilized in a healthcare setting. A portfolio is required at the end of the course. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: ENG 098, FYE 101, RDG 098 or placement. Fall.

MAS 130. Medical Terminology and the Body Systems I. 4 Credits.
This course is designed to provide students with a clear understanding of two important concepts in healthcare, medical terminology, and the relationship between structure and function that focuses on normal physiological processes. It offers fundamental concepts as to the origin of medical terms, and word building, as well as the various word parts and their uses when constructing and analyzing medical terms. A workbook-text format is used to help understand the principles of word-building with an online learning management system platform containing audio and visual aids that are utilized to enhance the learning and pronunciation of words. The integration of concepts about the various organ systems and their functions including a comparison of the structure and function of the human body across the life span, the various organs composing each organ system, normal physiological processes, and cellular functions that play a critical role in maintaining homeostasis are covered in this course. The online Practice Anatomy Lab (PAL 3.0) containing virtual human cadaver dissections, histology, and illustrations provides additional audio and visual aids to facilitate learning. It utilizes an adaptive-based learning platform that caters to the unique needs of each learner. Online student activities for this course are assigned to simplify and clarify concepts to enhance learning. A minimum grade of “C+” or better is required to advance in the medical assisting program. Prerequisites: ENG 098, FYE 101, RDG 098 or placement. Fall.

MAS 131. Medical Terminology and the Body Systems II. 4 Credits.
This course expands the basic concepts of structure and function covered in Medical Terminology and the Body Systems I (MAS 130) course focusing on common diseases, various diagnostic procedures and treatment options. A workbook-text format is used to help understand the principles of word-building and an online learning management system platform containing audio and visual aids is utilized to enhance learning including pronunciation of words. The integration of concepts related to common diseases involving the various organ systems of the human body across the life span that disrupt homeostasis are covered including relevant diagnostic procedures and treatment options. Virtual human cadaver dissections, histology and illustrations provide additional audio and visual aids to facilitate learning utilizing an adaptive-based learning platform that caters to the unique needs of each individual learner. Online student activities for this course are assigned to further simplify and clarify concepts to enhance learning. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: MAS 130. Fall.

MAS 180. Advanced Medical Administrative Procedures. 4 Credits.
This course will provide additional administrative skills that will allow students to function more effectively in the administrative area of a medical facility. Among the topics included will be advanced communication skills to analyze the needs of the patient, basic database management, templates, creating and analyzing reports, tables, and graphs. Each topic will be further explored in lab utilizing case studies. Prerequisites: MAS 105, MAS 230 (or corequisite). Spring.

MAS 201. Medical Machine Transcription. 3 Credits.
This is a beginning medical transcription course designed to provide students with a working knowledge of the transcription of medical reports. Medical reports will be transcribed from ten individual case studies, each of which concerns a specific system of the body. The case studies have been taken from hospital medical records. The medical reports included are history and physical examinations, radiology reports, operative reports, pathology reports, requests for consultation, discharge summaries, and death summaries. Prerequisites: EOA 106 or placement; MAS 130. Spring.
MAS 206. Medical Assisting Clinical and Lab Procedures. 4 Credits.
Medical Assisting Clinical and Lab Procedures course cover the basic clinical and lab skills required of an entry-level medical assistant. Common medical and lab procedures covered include aseptic technique, assisting in various specialty exams, preparation and proper administration of medication, performing ECG, medical history taking, vital signs, stocking of supplies and proper sharps disposal, patient identification and verification, obtaining and processing specimens, recognizing and handling emergencies, maintenance and proper use of medical and lab equipment. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: ENG 098, FYE 101, RDG 098 or placement. Fall.

MAS 207. Medical Specialty Procedures. 4 Credits.
This course covers concepts and skills that are performed by medical assistants in a medical specialist clinic. This course is an expansion of concepts that are covered in MAS 206 that are focused on specialty procedures as well as important considerations that could affect the accuracy of test results. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: MAS 206. Fall.

MAS 208. Principles Of Pharmacology. 3 Credits.
This course examines current and commonly used practices, procedures, medications, and drug preparations. Emphasis is placed on three areas: general drug classifications, medication preparation, and the effects of drugs on the body systems. A system of measurements and conversions used to calculate medication dosages are covered. Drug classifications, routes of administration, drug preparation, and patient education are also included. Additional topics will include safety protocols, compliance with drug regulations, and quality control of prescription requests. Students will apply critical thinking regarding patient assessment and develop skills for effective patient communication, care, and education. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: MAS 131 (or corequisite); MAS 206 (or corequisite); MAT 092 or placement. Spring.

MAS 209. Medical Law and Ethics. 2 Credits.
This course covers the legal, ethical, and bioethical aspects of healthcare as well as the scope of practice for medical assistants. Students will learn concepts involving the legal system and the healthcare environment, physician-patient relationship, patient confidentiality, HIPAA, professional liability, medical malpractice and trends in health care. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: ENG 098, FYE 101, RDG 098 or placement; MAS 105. Fall.

MAS 211. Externship Experience for Medical Office Certificate. 3 Credits.
This externship experience will allow student to apply knowledge, perform administrative procedures and develop professional attitudes for interacting with other professionals and healthcare consumers. Placements include actual medical offices, clinics, and/or healthcare facilities. The field experience, seminar and certification review will equal 120 hours. Students are expected to complete a minimum of 15 hours/week at the externship site. Prerequisites: MAS 131, MAS 233; MAS 231 (corequisite). Spring.

MAS 230. Medical Administrative Procedures I. 4 Credits.
This course covers the various administrative responsibilities performed by entry-level medical assistants. Concepts covered include the history of the healthcare system, legal and ethical consideration, managing medical facilities, telecommunication, medical records management, types of written communication, types of medical insurance as well as patient scheduling using EHR software. Basic concepts in billing and reimbursement will also be covered and banking procedures. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisite: MAS 105. Spring.

MAS 231. Medical Administrative Procedures II. 4 Credits.
This course is focused on concepts covering accounting and medical facility finances, clinic and human resources management, electronic clinical quality measures, managed health care models and insurance types, revenue cycle management, CMS reimbursement methodologies, and regulatory compliance. The application of coding guidelines will also be covered using case scenarios. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisite: MAS 230. Spring.

MAS 232. Medical Coding I. 3 Credits.
This course covers diagnostic coding concepts for entry level medical assistants. Concepts covered include the transition from ICD-9 CM to ICD-10 CM coding system as well as coding guidelines. Students will learn the basic concepts on how to use the ICD-10 CM when performing diagnostic coding on various organ systems including legal and ethical issues in coding practices. Prerequisites: MAS 105, MAS 130. Fall.

MAS 233. Medical Coding II. 3 Credits.
This course covers basic procedural coding concepts and principles for entry level medical assistants. Students will learn the basic concepts on how to use the CPT and HCPCS manuals when performing procedural coding involving various organ systems including legal and ethical issues in coding practices. Basic concepts and principles in Evaluation and Management (E/M) are also covered. Prerequisites: MAS 131, MAS 232. Spring.

MAS 240. Medical Assisting Seminar. 2 Credits.
This course is designed to help students integrate knowledge from across the medical assisting curriculum in preparation for the Certified Clinical Medical Assistant (CCMA) exam given by the National Healthcareer Association (NHA). Students will integrate
and apply both administrative and clinical knowledge, theory and understanding from all coursework completed in the medical assisting program. Combination of lecture slides, video presentations, discussions, homework and standardized tests delivered online are used to enhance learning and engagement as well as to improve recall on concepts learned. Timed test using third party learning management system platform and or uploaded questions in blackboard shall be used during standardized tests to simulate the actual exam. This method allows students to get familiar with the actual test process. The course will cover the following areas: administrative, clinical and general knowledge. Areas that will be tested include: office and financial management, diagnostic and treatment services, pharmacology, and laboratory services, medical terminology, anatomy, physiology, healthcare law and ethics.

Study and test taking strategies will be reviewed and preassessment sessions for the exam will be conducted. CCMA application process, eligibility and expectations during the exam shall be covered. Registration is restricted to students who are preparing to take the CCMA exam and who had completed all MAS course with a grade of C+ or better. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisites: MAS 208, MAS 209, MAS 230 successfully completed with a grade of C+ or better. Spring.

MAS 250. Medical Assisting Externship. 4 Credits.
This externship will provide supervised placement in a non-classroom setting at a healthcare facility, medical office, or other approved sites. This experience will enable the student to synthesize and apply concepts and skills learned in the Medical Assisting program. This externship consists of a minimum of 160 hours of supervised experience at an approved clinical site of Mount Wachusett Community College. The experience will be divided into 40 administrative and 120 clinical hours, allowing the student to experience both clinical and administrative responsibilities. A minimum grade of C+ is required to complete the medical assistant certificate and/or advance to the Medical Assisting Degree. Prerequisites: MAS 209; MAS 208, MAS 230, MAS 240 (or corequisites). Spring.

MAS 251. Externship. 4 Credits.
This course offers the externship experience in a virtual environment that will provide students both clinical, administrative, and essential soft skills training. This course is meant for prospective students who had previous or current clinical experience working with patients and have successfully passed their clinical competency in the Medical Assisting program. It enables students to synthesize, apply, and demonstrate administrative and clinical concepts, as well as soft skills, learned in the Medical Assisting program. Students will complete three major areas of competency, namely, administrative, clinical, and soft skills. The simulations will provide an orientation and a didactic portion that includes interactive videos and assessments. Course registration requires the dean’s preapproval. Prerequisites: Course registration requires deans approval; CORI/SORI check, up-to-date health requirements, up-to-date provider/professional level CPR certification; MAS 230 (corequisite), MAS 105, MAS 130, MAS 206, MAS 208, successfully completed with a grade of B+ or better. Spring.

MAS 260. Basic Pathophysiology. 3 Credits.
This course covers the basic concepts of human disease, its mechanism of development, and relevant factors in its development. A general overview of the most common diseases in each organ system is presented that include relevant clinical signs and symptoms. A final grade of C+ or better must be achieved to advance in the MAS program. Prerequisite: MAS 131. Spring.