

Radiography

Associate of Applied Science Degree

The Radiography program is a day program; there are no evening Radiography courses offered. A new Radiography class is selected for each Fall Semester.

The Associate of Applied Science (AAS) degree in Radiography is designed to provide students with the knowledge and skills to enter the field of radiography. The curriculum includes a general education foundation and 45 credits in courses pertinent to the development of competency in diagnostic radiography.

The Radiography program seeks to provide each student with the didactic, laboratory and clinical education to become a qualified entry level Radiologic Technologist. The program provides each student the opportunity to develop technical skills, enhance critical thinking and strengthen interpersonal behavior through educational activities.

All students interested in the Radiography Program must first apply to the college through the Admissions Department. The pre-professional phase of the program requires candidates complete seven prerequisite courses: ENG 111 and ENG 112 English Composition I & II; PSY 113 General Psychology, CMP 135 Computer Application; COM 109 Speech Fundamentals; BIO 101 and BIO 102 Anatomy and Physiology I & II. Students in the pre-professional phase are required to take these seven courses for the Radiography major. These courses can be taken full or part time, in the day or evening, or during the summer. Admission into the professional phase is not guaranteed once the pre-professional phase work is completed.

ALL CANDIDATES MUST ATTEND ONE OF THE EIGHT MANDATORY RADIOGRAPHY INFORMATION SESSIONS. The information sessions are held each month starting in June, through February. The schedule can be found on the Radiography (<https://www.ccm.edu/academics/divdep/health-professions-natural-sciences/departments-of-allied-health/radiography/radiography-information/#whatlearn>) webpage. The deadline for the program application is March 1st. All seven prerequisite courses must be completed by the end of each Spring semester to be a candidate for the Fall semester professional phase of the program.

Acceptance into the professional phase is competitive. A student's GPA must be 2.5 or higher. The granting of a seat is based on the number of general education courses completed, the grades received and the overall GPA at the time the candidate applies to the program. Applicants are ranked according to grades achieved in the required pre-professional courses. Values are assigned to grades achieved utilizing a point system. Science grades are weighted more heavily than non-science courses. All science courses must be less than seven years old. Grades for all prerequisite courses must be C or better. Students who have taken science courses prior to this seven-year cutoff must prove competency by testing provided through the Biology and Chemistry Department or by retaking the course.

All students accepted into the professional (Radiography courses) phase of the program will undergo an annual Criminal History

Background Check and Urine Drug Screening, annual flu vaccine, obtain malpractice insurance at their own expense, obtain health clearance and be certified in CPR by the American Heart Association. In addition, students in the professional phase of the program are required to carry personal health insurance that provides coverage for accidents and sickness.

A statewide criminal record search through the New Jersey State Police and a National Criminal History Database Search are performed on all students upon initial acceptance into the professional phase of the program and annually thereafter. If a record is found as a result of the criminal record searches, admission into the professional phase of the program may be denied. If there is no record upon admission but subsequent searches result in a record found, the student may be immediately dismissed from the program.

The Radiography program maintains a zero-tolerance policy regarding substance abuse. The program faculty requires Radiography students to provide safe, effective and supportive care in the clinical setting. To fulfill this purpose, Radiography students must be free of chemical impairment during participation in any part of the Radiography program including classroom, laboratory and clinical settings. A Urine Drug Screening is performed on all students performing their clinical education at any of the program's clinical affiliates upon initial acceptance into the professional phase of the program. Failure to submit to the Urine Drug Screening will result in dismissal from the program. If the test is positive for illegal substances, admission into the professional phase of the program is denied. In addition, illegal use of prescribed substances will result in denial of admission into the professional phase of the program.

All Radiography students are required to wear the County College of Morris Radiography uniform when in the clinical setting. Uniforms are obtained at the student's expense.

Graduates of the two-year program are eligible to apply for New Jersey State licensure and for certification as a Registered Technologist by the American Registry of Radiologic Technologists.

The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT, 20 N Wacker Drive, Suite 2850, Chicago, IL 60606-3182; (312-704-5300) and the State of New Jersey Department of Environmental Protection – Radiologic Technology Board of Examiners P.O. Box 415, Trenton, NJ 08625; (609-984-5890).

The JRCERT publishes guidelines that a Radiography program must meet in order to be accredited. In order to be awarded and maintain accreditation status, the program must be in compliance with these guidelines. Since January 1, 2021, the Standards and Guidelines of an Accredited Educational Program for the Radiographers has been the guideline utilized for accreditation.

A detailed description of the program's policies and procedures can be found in the Radiography Program Student Handbook available in the program's office in the Department of Allied Health and in the Admissions Office. The program's pregnancy policy can be found in the Radiography Program Student Handbook.

Due to continual program revisions mandated by the accrediting agencies, students should consult their academic advisors when selecting courses.

For more information, visit the [Radiography \(http://www.ccm.edu/academics/divdep/health-professions-natural-sciences/department-of-allied-health/radiography/\)](http://www.ccm.edu/academics/divdep/health-professions-natural-sciences/department-of-allied-health/radiography/) website.

Degrees

AAS Radiography

(P3840)

General Education Foundation

Communication	6
ENG-111 English Composition I	
ENG-112 English Composition II	
Math-Science-Technology	3
CMP-135 Computer Concepts With Applications	
Social Science or Humanities	3
PSY-113 General Psychology	
General Education Electives	8
BIO-101 Anatomy and Physiology I	
BIO-102 Anatomy and Physiology II	
General Education Foundation Credits	20
Radiography Core	
COM-109 Speech Fundamentals	3
RAD-100 Introduction to Radiography	2
RAD-104 Principles of Radiography I	4
RAD-107 Radiography Clinical Practice I	1
MAT-140 Math for Radiographers	1
RAD-110 Radiation Biology and Physics	3
RAD-114 Principles of Radiography II	4
RAD-117 Radiography Clinical Practice II	2
RAD-120 Intermediate Clinical Practice	3
RAD-200 Pathology for Radiography	2
RAD-204 Principles of Radiography III	4
RAD-207 Radiologic Special Imaging	3
RAD-210 Radiographic Exposure	3
RAD-213 Radiography Clinical Practice III	2
RAD-220 Principles of Radiography IV	4
RAD-224 Advanced Imaging	2
RAD-227 Radiography Clinical Practice IV	2
RAD-230 Advanced Clinical Practice	3
Radiography Core Credits	48
Total Credits	68

Science courses completed by students prior to entering a Radiography course must be less than seven years old. If the science courses exceed the seven-year limit, students can prove their competency by testing or they must retake the courses.

Faculty

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Courses

RAD-100. Introduction to Radiography. 2 Credits.

LECT 30 hrs

Introduction to Radiography is the study of the fundamental elements of the health system, patient care and the profession of Radiography. The concepts of ethics, law, medical asepsis, vital signs, communicable disease and medical emergencies are presented in this course.

Prerequisites: Admission to Professional Phase and permission of department chair

Corequisites: RAD-104, RAD-107 and MAT-140

Additional Fees: Course fee applies.

RAD-104. Principles of Radiography I. 4 Credits.

LECT 45 hrs LAB 45 hrs

This course is designed to provide students with the necessary theory, concepts and hands-on experience in performing specific diagnostic procedures. Patient positioning, equipment manipulation, radiation protection techniques, appropriate patient care techniques and critique of radiographic images are presented in this course. Body areas covered include chest, abdomen, upper and lower extremities.

Prerequisites: Admission to Professional Phase; Department permission

Corequisites: RAD-100, RAD-107 and MAT-140

Additional Fees: Course fee applies.

RAD-107. Radiography Clinical Practice I. 1 Credit.

CLIN 120 hrs

This course provides students with an opportunity to apply concepts learned in Radiography I and Introduction to Radiography. Some of the tasks include operating equipment appropriately, applying basic patient care and positioning the patient accurately.

Prerequisites: Admission to Professional Phase - permission of department chair

Corequisites: RAD-100, RAD-104 and MAT-140

Additional Fees: Course fee applies.

RAD-110. Radiation Biology and Physics. 3 Credits.

LECT 45 hrs

The study of physics and electronics involved in the production, use and control of the various electromagnetic energies used in medical and diagnostic applications.

Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140

Corequisites: RAD-114 and RAD-117.

RAD-114. Principles of Radiography II. 4 Credits.

LECT 45 hrs LAB 45 hrs

Principles of Radiography II reinforces basic concepts presented in Principles of Radiography I. Body areas covered include the hip, pelvis, bony thorax, entire spine, upper and lower GI tract, biliary system and the urinary system.

Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140

Corequisites: BIO-102, RAD-110 and RAD-117

Additional Fees: Course fee applies.

RAD-117. Radiography Clinical Practice II. 2 Credits.

CLIN 240 hrs

Students are allowed the opportunity to put into practice the course material introduced in this and previous semesters. Opportunities for more responsibility and independence with previously learned procedures are provided. Students demonstrate competency of procedures learned in Radiography I. Also included is film critique in which the student evaluates radiographs.

Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140

Corequisites: RAD-110 and RAD-114

Additional Fees: Course fee applies.

RAD-120. Intermediate Clinical Practice. 3 Credits.

CLIN 352 hrs

This 11-week clinical experience allows students the opportunity to put into practice and demonstrate competency of procedures learned in Principles of Radiography I and II. A weekly film critique class for students to evaluate radiographs also is included.

Prerequisites: RAD-110, RAD-114, RAD-117

Additional Fees: Course fee applies.

RAD-200. Pathology for Radiography. 2 Credits.

LECT 30 hrs

This pathology course is an assessment of medical and surgical diseases designed to familiarize the student with changes caused by disease in relationship to radiography. Student projects, associated film presentations and critiques are also included.

Prerequisites: RAD-120

Corequisites: RAD-204 and RAD-213.

RAD-204. Principles of Radiography III. 4 Credits.

LECT 45 hrs LAB 45 hrs

Principles of Radiography III is a study of the anatomy and positioning of the skull and facial bones. Pediatric, geriatric, trauma and mobile radiography are also included.

Prerequisites: RAD-120

Corequisites: RAD-207 and RAD-213

Additional Fees: Course fee applies.

RAD-207. Radiologic Special Imaging. 3 Credits.

LECT 45 hrs

This course provides students with a basic understanding of the more advanced and complex diagnostic procedures. Students are introduced to such procedures as, but not limited to, myelography, arthrography, venography and hysterosalpingography. The basic concepts of pharmacology, venipuncture and contrast agents are included.

Prerequisites: RAD-120

Corequisites: RAD-204 and RAD-213.

RAD-210. Radiographic Exposure. 3 Credits.

LECT 45 hrs

This course will acquaint students with the many methods of routine and special technical factors available to radiographers to create diagnostic radiographs. Emphasizing the various accessory devices that may affect radiograph production, each student comes to understand how technique can significantly affect image quality. Students learn what technical factors can safely be used, aware that radiation physics, radiation protection and quality assurance are interlaced with the principles of radiographic exposure. In addition, upon completion of this course students are able to construct a functional safe technique chart.

Prerequisites: RAD-110, RAD-120

Corequisites: RAD-204, RAD-207.

RAD-213. Radiography Clinical Practice III. 2 Credits.

CLIN 240 hrs

Students are allowed the opportunity to put into practice the course material introduced in this and previous semesters. The course also gives the student more responsibility and independence with procedures that have been deemed competent. Also included is film critique in which students evaluate radiographs.

Prerequisites: RAD-120, RAD-114, RAD-117

Corequisites: RAD-204, RAD-207 and RAD-210

Additional Fees: Course fee applies.

RAD-220. Principles of Radiography IV. 4 Credits.

LECT 45 hrs LAB 45 hrs

Students become acquainted with the various components to a Radiologic Quality Assurance Program stressing the significant role a quality assurance program must play in the field of Radiography. Students also study the effect of various appropriate types of electromagnetic radiation and their effect upon living tissues and learn the importance of radiation protection for patients and personnel. A complete review of all radiography procedures also is provided.

Prerequisites: RAD-204, RAD-213, RAD-207, RAD-200, RAD-210

Corequisites: RAD-227

Additional Fees: Course fee applies.

RAD-224. Advanced Imaging. 2 Credits.

LECT 30 hrs

The course presents the advanced imaging techniques required by nuclear medicine, diagnostic medical sonography, radiation therapy, mammography, computed tomography and magnetic resonance imaging. The basic concepts and principles of cardiac and vascular interventional radiography are also discussed.

Prerequisites: RAD-207, RAD-200, RAD-210, RAD-204, RAD-213

Corequisites: RAD-220 and RAD-227.

RAD-227. Radiography Clinical Practice IV. 2 Credits.

CLIN 240 hrs

This course provides students with an opportunity to refine skills learned in previous radiography clinical courses. Continuous practice is performed to improve technique and procedures.

Students complete all remaining competencies for the program.

Prerequisites: RAD-200, RAD-204, RAD-207, RAD-210, RAD-213

Corequisites: RAD-220 and RAD-224

Additional Fees: Course fee applies.

RAD-230. Advanced Clinical Practice. 3 Credits.

CLIN 352 hrs

This 11-week course provides students the opportunity to exercise independent judgment and discretion in the technical performance of medical imaging procedures. Students complete the terminal competency evaluations for the program. This final session of clinical education ensures that the student is ready for employment.

Prerequisites: RAD-220, RAD-224, RAD-227

Additional Fees: Course fee applies.