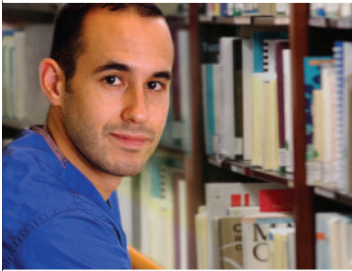


Mayo School of Health Sciences

# Radiography Program

Rochester, Minnesota



# Radiography Program

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## **PROGRAM DESCRIPTION**

Mayo School of Health Sciences (MSHS) at Mayo Clinic in Rochester, Minn., offers a 24-month Radiography Program in cooperation with Rochester Community and Technical College (RCTC).

Radiography is an exciting and challenging career involving the use of highly sophisticated equipment to create X-rays - anatomical images that are used by physicians to diagnose disease, injury or disability.

Radiographers have direct patient contact in clinic and hospital settings and are valuable members of the primary health-care team.

This program provides the high-quality didactic and clinical experiences needed to create a well-rounded, fully competent radiographer.

## **MISSION STATEMENT**

The mission of the Mayo Clinic Radiography Program is to encourage talented and dedicated individuals to pursue careers in radiography and prepare them for the profession by providing a high-quality, professional curriculum that presents a broad didactic component, comprehensive clinical rotations, and an environment that instills professional affective skills.

## **PROGRAM GOALS**

1. We will provide entry-level radiographers for employment at medical facilities in Rochester and the upper Midwest.
2. Our students will progress through the program in a manner which will enable them to develop the critical thinking and problem solving skills required of a clinically competent entry-level radiographer.
3. Our students will progress through the program in a manner which will enable them to provide quality patient care and exhibit the professionalism required of an entry-level radiographer

## **ACCREDITATION**

Mayo School of Health Sciences' Radiography Program is accredited by the Joint Review Committee on Education in Radiologic Technology. Full accreditation has been maintained since the program's inception in 1982.

### **JRCERT**

20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-2901  
(312) 704-5300  
Fax: (312) 704-5304  
E-mail: [mail@jrcert.org](mailto:mail@jrcert.org)

Mayo Foundation is accredited by the North Central Association of Colleges and Schools Higher Learning Commission.

### **Higher Learning Commission**

30 N. LaSalle Street, Suite 2400  
Chicago, IL 60602-2504  
(800) 621-7440  
(312) 263-0456  
Fax: (312) 263-7462  
[www.ncacihe.org](http://www.ncacihe.org)

## **AFFILIATED INSTITUTION**

The curriculum for the Mayo School of Health Sciences' Radiography Program is taught in cooperation with Rochester Community and Technical College (RCTC).

The first two semesters of the program, you will spend the majority of your time taking classes at RCTC. The curriculum at RCTC includes courses related to radiography, as well as general education courses. These courses give students a well-rounded educational foundation.

## **FACILITIES**

For the final four semesters of the Radiography Program, students are assigned full time in the Mayo Clinic Department of Radiology. You will attend courses specific to radiography during these semesters, and gain experience in clinical practice.

## **GRADUATION AND CERTIFICATION**

When you successfully complete the Radiography Program, you will receive a Radiography Program Certificate of Completion from Mayo School of Health Sciences, Mayo Clinic College of Medicine and an Associate of Sciences degree from Rochester Community and Technical College.

Graduates are eligible to take the professional certification examination given by the American Registry of Radiologic Technologists. This certification provides nationally recognized credentials to practice radiography and fulfills the eligibility requirements for states which require licensure.

## **HOURS**

For the majority of the classroom instruction and clinical rotations, your learning schedule will include eight-hour days, five days per week.

## **CLASS SIZE**

Each year, Mayo School of Health Sciences admits up to 40 students to its Radiography Program in Rochester.

# **Curriculum**

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The Radiography Program is six semesters and designed to be completed in 24 months.

## **DIDACTIC**

The majority of the didactic work for the program will be completed within the first 21 months. You'll take part in this course work at both Rochester Community and Technical College and Mayo Clinic.

## **CLINICAL**

During the program, you'll gain extensive hands-on clinical experience in Mayo Clinic's Department of Radiology.

## **ROTATIONS**

Clinical rotations are scheduled in both outpatient and hospital settings throughout the Mayo Clinic campus. No off-site rotations are required as part of the program curriculum.

## **COURSE SEQUENCE - YEAR 1**

### **Fall Semester - September to December**

(RCTC and MSHS)

<b>Course</b>	<b>Location</b>	<b>Name</b>	<b>Credits</b>
PHYS1103	RCTC	Principals of Physics .....	3
PSYC2618	RCTC	General Psychology .....	4
ENGL1117	RCTC	Reading and Writing Critically I .....	4
BIOL1127	RCTC	Principles of Anatomy & Physiology I .....	4
RADT321	MSHS	History & Introduction to Radiography .....	2
RADT335	MSHS	Introduction to Clinical Radiography I* .....	1
<b>TOTAL</b>			<b>18</b>

### **Spring Semester - January to May**

(RCTC and MSHS)

<b>Course</b>	<b>Location</b>	<b>Name</b>	<b>Credits</b>
SPCH1114	RCTC	Fundamentals of Speech .....	3
PHIL1125	RCTC	Ethics .....	3
MATH1115	RCTC	College Algebra .....	3
BIOL1128	RCTC	Principles of Anatomy & Physiology II .....	3
ENGL1118	RCTC	Reading and Writing Critically II .....	4
RADT322	MSHS	Patient Care for Radiographers .....	2
RADT336	MSHS	Introduction to Clinical Radiography I* .....	1
<b>TOTAL</b>			<b>19</b>

### **Summer Semester - June to August**

(MSHS)

<b>Course</b>	<b>Location</b>	<b>Name</b>	<b>Credits</b>
RADT323	MSHS	Radiation Physics .....	2
RADT324	MSHS	Radiographic Anatomy and Positioning I .....	5
RADT337	MSHS	Clinical Practicum I* .....	5
<b>TOTAL</b>			<b>12</b>

## PROGRAM COURSE SEQUENCE - YEAR 2

Fall Semester - September to December  
(MSHS)

Course	Location	Name	Credits
RADT326	MSHS	Radiographic Anatomy and Positioning II . . . . .	5
RADT325	MSHS	Principles of Radiographic Exposure I . . . . .	2
RADT435	MSHS	Clinical Practicum II* . . . . .	10
<b>TOTAL</b>			<b>17</b>

Spring Semester - January to May  
(MSHS)

Course	Location	Name	Credits
RADT423	MSHS	Principles of Radiographic Exposure II . . . . .	2
RADT424	MSHS	Radiation Protection/ Radiobiology/Quality Control . . . . .	2
RADT425	MSHS	Special Modality Imaging . . . . .	3
RADT436	MSHS	Clinical Practicum III* . . . . .	10
<b>TOTAL</b>			<b>17</b>

Summer Semester - June to August  
(RCTC and MSHS)

Course	Location	Name	Credits
RADT426	MSHS	Applied Radiography Topics . . . . .	1
RADT437	MSHS	Clinical Practicum IV* . . . . .	7
<b>TOTAL</b>			<b>8</b>

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**Total RCTC Credits:** 31

**Total MSHS Credits:** 60

**Total Program Credits:** 91

Please note:

- Clinical Practicum includes:  
48 clinical hours = (1) semester credit  
32 lab hours = (1) semester credit
- Courses and sequencing are subject to change.

## **GRADING OR EVALUATION**

Mayo School of Health Sciences uses student evaluative tools that include:

- Written examination
- Demonstration of skills
- Self-assessment exercises
- Faculty reviews

Our system of evaluation provides students and faculty with a comprehensive look at individual performance. This allows faculty and administrative staff to direct students who are experiencing academic difficulty to the appropriate support resources, including tutoring programs and counseling opportunities.

## **Faculty**

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### **MSHS TEACHING FACULTY**

Mayo School of Health Sciences' Radiography Program draws its faculty from Mayo Clinic's clinical, scientific and technical staffs. They are chosen for their commitment to teaching as well as clinical practice and/or research. Many have published and lectured extensively and are highly regarded in their field.

You will have direct access to these individuals throughout your training. This allows you the opportunity to learn directly from some of today's best practitioners in radiography and radiology.

### **VISITING PROFESSORS/LECTURERS**

A hallmark of higher education excellence is the breadth and depth of information and experience provided students by the faculty and visiting experts. Many prominent professors visit Mayo Clinic to lecture on their areas of medical and scientific expertise each year.

As a student of MSHS, you are encouraged to attend all of the conferences, lectures and seminars prepared for students, residents, fellows and consulting staff.

# Admissions

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## PREREQUISITES

To apply to the Radiography Program, prospective students must have a high school diploma (or the equivalent) or be a high school senior who expects to graduate by the time the program begins in late August.

You must have academic skills that will allow you to enroll in College Algebra 1115 and English Composition 1117. This often requires testing, through the Academic Skills Assessment Program (ASAP) administered by Rochester Community and Technical College, to ensure your skills are at the appropriate level. In addition, you must have completed a high school or college level biology course with a grade of “C” or above within five years of beginning the program.

Applicants have a strong competitive advantage if they:

- Graduated in the upper half of their high school class.
- Scored above the 50th percentile on a college entrance examination.
- Can demonstrate a relatively strong background in math and science.
- Had at least a 3.0 grade point average in high school and college.

Students admitted to the Radiography Program are not selected based on grades alone. Letters of reference and interviews are also required.

### *Policies and Responsibilities*

The following Mayo School of Health Sciences policies affect applications and admissions to its programs:

#### *English fluency*

Fluency in written and spoken English is essential to succeed in the program and to ensure patient safety. If English is a second language, you must be able to demonstrate fluency. Satisfactory performance on the Test of English as a Foreign Language examination or the Michigan Test of English Language Proficiency must be documented as proof of fluency. Your test results must be less than two years old.



### ***Immunization record***

For the protection of patients, students and employees, and in compliance with state regulations, Mayo Clinic requires students to be properly immunized. You must show proof of the following immunizations before you begin a program at Mayo School of Health Sciences:

- Tuberculin test in the past six months
- Varicella, rubella and rubeola immunity
- Up-to-date diphtheria and tetanus shots
- Hepatitis B vaccination or signed declaration

Documentation of vaccinations must be provided to Mayo Employee Health Service prior to the start of class.

### ***Health status***

Students will undergo a physical examination or nurse's review at Mayo Clinic and will have the opportunity to update or receive the required tests and immunizations cited above. More information about the physical exam will be provided after you have been offered a program appointment. Appointment to the program is dependent upon successful completion of the physical examination.

### ***Medical insurance***

Prospective students must have medical insurance coverage during their program. Evidence of medical coverage must be provided when your educational program begins.

### ***Background check***

Prospective students must pass a criminal background check and/or drug screening required by state laws, prior to enrollment to Mayo School of Health Sciences.

### ***Student responsibilities***

Mayo School of Health Sciences students are expected to attend all scheduled classes, examinations and assigned clinical rotations unless they are given an approved absence.

Students must maintain a grade of "C" or above in each course in the program.

Students are required to exhibit professional and ethical conduct at all times.

### *Technical Standards*

Mayo School of Health Sciences accepts students who are highly qualified for its programs. To be considered for admittance you should exhibit strong qualifications for the health profession you wish to pursue.

Applicants to programs must possess the following general qualities:

- Critical thinking skills
- Sound judgment
- Emotional stability and maturity
- Empathy for others
- Physical and mental stamina
- Ability to learn and function in a variety of settings

You must be able to perform the essential functions of the profession and meet the standards of the curriculum. Students seeking exceptions to these standards or reasonable accommodations should initiate their request with the program's director.

In addition to the general standards described above, radiographers must be able to:

- Lift more than 50 pounds routinely.
- Work with their arms above their head routinely.
- Push and pull, bend and stoop, and kneel or squat routinely.
- Work standing 80 percent of the time.
- Work compassionately with patients.
- Help patients on and off the X-ray equipment from wheelchairs or carts.
- Effectively write and speak to patients and staff.
- Hear and see clearly.
- Accurately align the patient, X-ray equipment and film.
- Work effectively in a team setting.
- Organize and accurately perform the individual steps in X-ray examinations in the proper sequence.
- Work nights, weekends and holidays.

Radiographers are exposed to low levels of ionizing radiation (X-rays) and are expected to examine patients who may have communicable diseases. Chemicals used to process X-ray film may cause skin rashes in sensitive individuals.

## **TRANSFER STUDENT POLICY**

Transfer credit for previous general college course work may be accepted by RCTC. This could reduce your academic load early in the program, but will not reduce the 24 months required to graduate. Transfer credit from other radiography program course work, which is specific to radiography, is not accepted.

1. All math and science courses will be considered for transfer only if completed within two years of program start date. Placement above College Algebra on a current ASAP test can substitute for math courses over two years old.
2. Math courses which have College Algebra as a prerequisite will transfer towards MATH 1115.
3. Students who transfer Anatomy and Physiology I & II must also transfer credit for Medical Terminology or complete BTEC 1600 at RCTC.
4. When transferring in a physics course, one course of a two semester sequence will not be considered equal to PHYS 1103.

In addition, transfer students are required to complete a minimum of 20 credits on the RCTC campus in order to receive their Associate of Science degree in Radiologic Technology. Exceptions are made for radiologic technology majors enrolled in other academic institutions who will meet the requirements to receive a Bachelor of Science Degree upon program completion.

## **Application Process**

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### **POSITIONS**

Up to 40 Radiography Program students are accepted on a competitive basis each year. Classes begin in August and coincide with the start of the fall semester at Rochester Community and Technical College.

### **APPLY**

Applications and all supporting documentation must be submitted between November 1 and February 1 to be considered for appointments beginning the following August. There is no advantage to applying early. Any updates or changes to the published information, which will affect the applicants for the next class, will be made on the web site before the application window opens on November 1.

**Step 1:** To apply to the program, please submit:

- An official transcript from each high school, college and/or university you attended. Please include post-secondary transcripts. If you are currently enrolled in fall courses, wait to submit transcripts with courses in progress until after your grades for the current semester/quarter are on the transcript. If you anticipate difficulty in meeting the February 1 application deadline, please call us.
- Three recommendations on the forms provided, one each from work-related, educational and personal references.
- A one to two page goal statement based on the questions listed on the application form.
- A non-refundable \$25 application fee. If remitted by check, please make out to the MSHS Radiography Program.
- Results from ACT or SAT exams (optional).
- Results of ASAP exams taken within the last two years (optional).

Please send your completed application and any of the required materials listed above, which you did not submit online, to:

**Mayo Clinic College of Medicine**

Mayo School of Health Sciences

200 First Street SW

Siebens Building, 11

Rochester, MN 55905

**Step 2:** Complete the:

- Mayo School of Health Sciences' application form

**Step 3:** Applicants considered for an appointment will be invited to Mayo Clinic in Rochester, at their own expense, for a personal interview with the admissions committee members.

**Step 4:** If you are accepted into the program, you must also apply for admission to Rochester Community and Technical College before April 15.

To apply visit:

- Rochester Community and Technical College ([www.rctc.edu](http://www.rctc.edu))

Additional information:

- Appointment letters are mailed in early April. If you receive an appointment letter your reply is expected within two weeks.
- Your appointment to the program is dependent upon successful completion of the physical examination, background check and assessment of academic skills through the ASAP exam.

- Incomplete applications, or applications postmarked or electronically submitted outside of the November to February timeframe, will not be processed.
- Program information and application materials are updated each year and are, therefore, not valid for subsequent applications.

## Tuition & Financial Aid

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### **PROGRAM COSTS**

You will pay tuition to Rochester Community and Technical College (RCTC) for classes held on its campus. Mayo Clinic charges \$138 per credit hour for the Radiography courses offered through Mayo School of Health Sciences.

You must purchase the required textbooks and uniforms.

You are also responsible for providing your living accommodations and transportation.

### **FINANCIAL AID**

Student federal and state financial aid is available for the entire program through RCTC.

Mayo School of Health Sciences offers financial incentives for students to participate in some of its health sciences training programs. Scholarships, grants and low-interest loans may be available for those who demonstrate financial need.

The Mayo Clinic College of Medicine Student Financial Aid Office can provide more details about the financial aid or incentives offered for the Radiography Program.

In addition, you may hold outside employment during the program, if it does not conflict with class or study time.

# Radiography Career Overview

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## FIELD DESCRIPTION

Radiographers use ionizing radiation (X-rays) to create images of body parts and organ systems for medical diagnostic purposes. Using their highly developed skills in human anatomy and patient care, radiographers prepare patients for X-rays, explain the examination, and position the patients for the procedure.

Radiographers perform X-ray examinations on patients in a variety of clinical settings. These examinations can vary from a simple hand X-ray to an examination of the kidneys after contrast media is injected. Radiographers work in outpatient clinical settings, perform complex procedures in surgery, and work in hospitals performing examinations on patients of all ages.

## CAREER OPPORTUNITIES

Radiographers are in high demand throughout the U.S. and career opportunities in radiography are excellent.

Radiographers work in a variety of settings, including hospitals, clinics, doctors' offices and industry. Nationwide, there are more than 180,000 radiographers.

Career mobility for radiographers is excellent. With further education or experience, opportunities exist for advancement in education, management and additional imaging modalities.

## EARNING POTENTIAL

Nationwide, the starting salary for a radiographer is between \$30,000 and \$35,000. The starting salary for a radiographer is approximately \$40,000 at large hospitals. Senior radiographers and those in specialty areas such as computed tomography (CT), magnetic resonance imaging (MRI) and special procedures can expect to earn upwards of \$55,000. Salary is dependent upon location and employer.

Professional Organizations

Visit the following Web sites to find out more about radiography:

- Radiological Society of North America ([www.rsna.org](http://www.rsna.org))
- American Society of Radiologic Technologists ([www.asrt.org](http://www.asrt.org))
- The American Registry of Radiologic Technologists ([www.arrt.org](http://www.arrt.org))
- Association of Educators in Radiologic Sciences ([www.aers.org](http://www.aers.org))

## Program Contacts

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For an application form or more information about the Radiography Program, please contact:

**Kate Ray, Enrollment and Student Services Director**

(507) 284-3678

(800) 626-9041

Fax: (507) 284-0656

E-mail: [mshsenrollment@mayo.edu](mailto:mshsenrollment@mayo.edu)

Or

**Janice Blanchard, Radiography Program Admissions Committee Chair**

(507) 284-3169

Fax: (507) 284-0656

E-mail: [blanchard.janice@mayo.edu](mailto:blanchard.janice@mayo.edu)

Or

**Bev Tupper, Radiography Program Director**

(507) 284-3169

Fax: (507) 284-0656

E-mail: [tupper.beverly@mayo.edu](mailto:tupper.beverly@mayo.edu)

**Mayo Clinic College of Medicine**

Mayo School of Health Sciences

Siebens Medical Education Building 11

200 First Street SW

Rochester, MN 55905

You can also request more information on education programs offered by Mayo School of Health Sciences.

# Notes

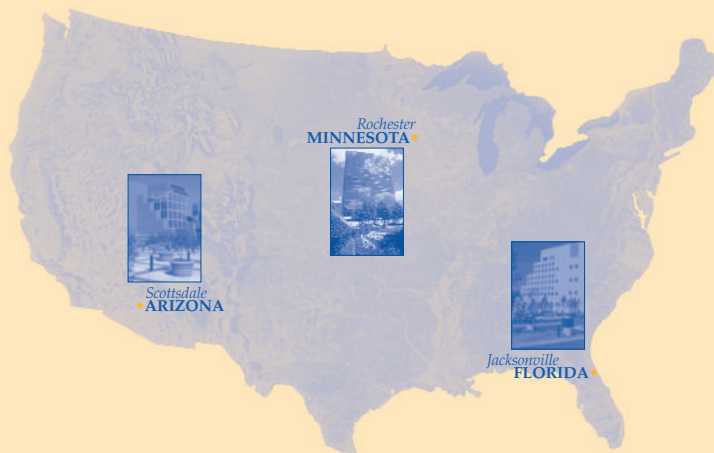
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# Notes

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## MAYO CLINIC COLLEGE OF MEDICINE CAMPUSES



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Jacksonville, FL 32224

200 First Street SW  
Rochester, MN 55905

13400 East Shea Boulevard  
Scottsdale, AZ 85259

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[www.mayo.edu](http://www.mayo.edu)

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