



**RADIOLOGIC
TECHNOLOGY
AT
HOWARD COMMUNITY
COLLEGE**

August 2008

Radiologic Technology

Howard Community College began the Radiologic Technology Associate of Applied Science Degree Program during the summer of 2008. Admission to the clinical portion of the program is selective with a specific number of clinical seats available. Admissions policies and procedures for the program's clinical component will be similar to those in place for HCC's nursing program.

Students interested in Radiologic Technology should work closely with the Office of Admissions and Advising and select Radiologic Technology as their learning program (learning program code 238) on the HCC application. Further information is available by visiting or contacting the office directly (RCF-242; 410-772-4230; alliedhealth@howardcc.edu) or on the Office of Admissions and Advising's website at www.howardcc.edu/admissions. A link for the office's hours can be found on the right-hand side of this web page. Information sessions will also be available throughout the year, and will also be announced on the web.

Radiologic Technology is a limited-enrollment selective admissions program. Students who meet the qualifications for admission to the clinical portion of the program are not automatically guaranteed a seat for the clinical year in which they initially apply; however, a waiting list will be maintained. We encourage students to consider declaring a second major, such as General Studies, General Studies-Science Emphasis, or Pre-Allied Health in order to be able to continue toward a degree at Howard Community College.

Please note that all proposed procedures, dates, and requirements are subject to change.

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FREQUENTLY ASKED QUESTIONS

What is Radiologic Technology?

Radiologic Technology is a medical specialty (within the general field of Radiologic Science) which uses ionizing and non-ionizing radiation to produce images of the tissues, organs, bones and vessels that comprise the human body. These images can be recorded on film or displayed on a video monitor. As opposed to Radiation Therapy, which is used in the treatment of disease, Radiologic Technology produces images which enable the physician to examine virtually any part of the human body.

What is a Radiologic Technologist?

A Radiologic Technologist (RT) or radiographer operates the equipment used to produce radiographic images for the diagnosis of diseases. A radiographer uses his or her understanding of radiation, physics, and human anatomy and physiology to produce high quality permanent medical images through accurate positioning, and the use of advanced technical and patient care skills. The images the radiographer produces are read or interpreted by a physician to diagnose injury and disease. To be an effective RT or radiographer, a student must acquire knowledge of radiologic technology theory and develop his or her skills as a radiographer under the direct supervision of a registered radiographer. Education for the radiography student integrates classroom, laboratory, and clinical training.

What is the employment outlook for Radiologic Technologists?

Most programs prepare students for entry-level employment as radiologic technologists or radiographers in a variety of settings including hospitals, clinics, medical offices, imaging centers, mobile imaging companies, research centers, government agencies, commercial sales and marketing, and industry. The Maryland Department of Labor reports that the median salary for Radiologic Technologists in 2005 was \$54,325.

Can Radiologic Technologists advance further in the field after receiving the RT degree and certification?

With additional education and clinical experience, registered Radiologic technologists can specialize in computer tomography (CT), magnetic resonance imaging (MRI), mammography, interventional radiography, sonography, and other special procedures. All specialty imaging areas offer advanced certification exams given by the American Registry of Radiologic Technologists (ARRT). RTs are eligible to sit for advanced imaging exams one year after their initial certification.

Students wishing to advance their education level can also pursue a Bachelor's degree in areas of liberal arts, management, business and education. Students may also pursue certification in Radiation Therapy, Ultrasound, or Nuclear Medicine with additional training at an accredited school. Certified Radiologic Technologists are eligible to apply for admission to HCC's Advanced Cardiovascular Imaging and Interventional Therapies Program. Graduates of this program may apply to take the examination in Cardiovascular-Interventional Technology to become a Cardiovascular Radiologic Technologist (CVRT) and a Registered Cardiovascular Invasive Specialist (RCIS). (Please note: Howard Community College also offers Cardiovascular Technology degree and certificate programs.)

Are certificate options available in the Radiologic technology program?

The only program option is the college's A.A.S. degree program.

GENERAL PROGRAM INFORMATION

All students must apply for general admission to the college, selecting Radiologic Technology Associate of Applied Science (A.A.S.) as their learning program; program code # 238. They should enroll in any prerequisite courses that may be required. Admission to the Radiologic Technology program's clinical coursework is selective, and is based on the number of seats available. If there are more applicants than available seats, a lottery will be held to seat the class. Legal residents of Howard County have limited priority.

Required Coursework

To obtain the A.A.S. Degree, students must complete:

- **15** credits of prerequisite course work
- **12** credits of specified general education core courses
- **47** credits of Radiologic Technology clinical courses

Program Length

Students who attend full-time may be able to complete all general education and Radiologic Technology curriculum requirements in three years, including the clinical portion of the program. Once accepted into the clinical part of the program, students must take six consecutive semesters of Rad Tech course work, beginning in the summer and including summer and winter semesters in addition to major semesters. Students can expect to spend at least 21 hours per week in class and clinicals, and 12-15 hours outside of the classroom studying. Students who transfer in all or most of their general education and prerequisite classes may be able to complete the program in less than three years; other students may take longer.

Clinical Program

The clinical portion of the Radiologic Technology program takes two years to complete. Lectures are proposed to be held mostly in the daytime, but could also include evening meetings. The clinical schedule depends upon clinical site availability and course requirements, and could be held during the daytime, evening, and/or weekend.

Instruction in the clinical segment of the program is a combination of lecture, demonstration and laboratory activities. Students receive a comprehensive introduction to the major components of radiation biology and protection, which is reinforced throughout the entire curriculum. Students' knowledge and practical ability increase as they progress through the curriculum. During laboratory sessions, students practice positioning, equipment manipulation, patient transfer, and vital sign assessment. They also perform various experiments to demonstrate the principles of radiographic exposure and quality assurance during testing procedures. Lectures and clinical education are further supplemented by a variety of required textbooks.

Over the course of the program, students rotate through different clinical education centers and clinical sites which offer the students a full range of radiologic procedures to assist them in demonstrating and acquiring clinical competencies.. Students are supervised at these sites by clinical instructors and on-site radiographers. These individuals are responsible for providing instruction and guidance to students throughout the clinical program.

Students will be placed at selected sites on a rotating basis. Students will also practice clinical skills with on campus x-ray equipment that produces ionizing radiation referred to as "campus-energized" equipment.

CURRICULUM

General Education Coursework

The Radiology Technology A.A.S. degree program requires the completion of specific general education core courses, in addition to prerequisite and clinical coursework. General education core courses are not subject to any time limits.

General education core courses required for Radiologic Technology

Course	Course Name
ENGL-121	College Composition I: Expository Writing
ENGL-122	College Composition II: Writing Through Literature
PSYC-101	General Psychology
Arts & Humanities Core	Literature, Fine Arts, or Humanities Core Course

Please note: Although it is not required, it is highly recommended that students entering the program successfully complete all of their general coursework prior to beginning the first clinical course, RADT-101, in the summer. Completion of these courses before beginning the Radiologic Technology clinical curriculum eases the course load in subsequent semesters. It is to the student's advantage to avoid taking additional courses while taking clinical coursework in the Radiologic Technology program.

Prerequisite Coursework

A prerequisite is a course that must be taken before another course can be taken and/or as a requirement of admission. HCC's Radiologic Technology degree program has prerequisite coursework that must be completed within specific time periods prior to applying for and being admitted to the clinical portion of the program.

Prerequisite Coursework for Radiologic Technology

Course	HCC Course Number	Time Limit
General Biology <i>or</i> Microbiology	BIOL-101 <i>or</i> BIOL-107 <i>or</i> BIOL-200	10 years*
Anatomy & Physiology I	BIOL-203	5 years*
Anatomy & Physiology II	BIOL-204	5 years*
College-Level Math Core (Algebra-based)	MATH-131, 133, 135, 140 or higher	none

*See below.

Students must successfully complete the above **4 prerequisite courses** *by the end of the spring semester* to be considered for selection to the clinical portion of the Radiologic Technology program in the summer. All prerequisite courses must be completed with a grade of C or higher; *at least one* of the three prerequisite **SCIENCE** courses must be completed with a grade of A or B.

***Time Limits on Science Courses**

General Biology *or* Microbiology must be completed no more than ten years prior to beginning the first clinical Rad Tech course at HCC. If your General Biology *or* Microbiology course is over ten years old, prior to applying to the Radiologic Technology program you will need to successfully retake the expired course or otherwise demonstrate current knowledge – for example, via available HCC proficiency or challenge exams, CLEP exams, etc.

If your Anatomy & Physiology (BIOL-203 and 204) courses are over five years old, you must either successfully retake the expired course(s) prior to applying to the Radiologic Technology program, or take the HCC competency exam to demonstrate mastery of this material. To be

eligible for the competency exam, a student's original course must have been completed with a grade of C or higher at an accredited institution; the course content must be equivalent to HCC's content. Upon passing the competency exam(s), credit will be granted for a student's original Anatomy & Physiology course(s). Students must submit the "Request to Take Anatomy & Physiology Competency Exams" form, available at the Office of Admissions and Advising, or online: www.howardcc.edu/admissions; select Important Forms.

Credit for Prior Learning

Students may receive credit at HCC for prerequisite and general education courses completed at another accredited college or university, provided that the course content is equivalent to HCC coursework. Students should complete and submit the Transcript Evaluation Request Form along with official copies of all college transcripts. This form is available in the Office of Admissions and Advising (RCF-242) and online at www.howardcc.edu/admissions; select Important Forms. Students submitting foreign transcripts are required to complete additional procedures and are encouraged to meet with an allied health advisor.

ADMISSIONS REQUIREMENTS AND PROCEDURES

Because the Radiologic Technology program is a selective admissions program, there are several steps required for admission.

Before registering for courses at HCC, you must first be officially admitted to the college.

General admission to the college is completed by submission of:

- the Standard HCC Application for Admission (available in paper format and online)
- \$25.00 college application fee
- proof of home address
- proof of immigration status, if applicable (original documents are required)

Completing this process results in general admission to HCC, but *does not* automatically guarantee admission to the clinical portion of the Radiologic Technology degree program.

Radiologic Technology is designated as a **Health Personnel Shortage Incentive Grant Program**. Students who declare Rad Tech as their learning program are entitled to in-county tuition rates. Legal residents of Maryland may obtain this benefit by providing verification of their legal address with their application. Other procedures apply for non-Maryland residents. (Please note: International citizens in the United States on **F1** visas may not apply for admission to the Rad Tech program and are advised to select Pre-Allied Health for their learning program instead; students with *most* other immigration statuses may apply.) Though all legal residents of Maryland enjoy this tuition benefit, Howard County residents have initial preference for admission.

Application Process

STEP 1

Apply for general admission to Howard Community College. Declare Program Number 238 (A.A.S. Degree in Radiologic Technology) as your learning program on the HCC general application. *Since this is a selective admissions program and you are not automatically guaranteed a seat in the clinical portion of the program, we encourage you to consider declaring a second major of either General Studies, General Studies-Science Emphasis, or Pre-Allied Health in order to be able to continue toward a degree at HCC.*

STEP 2

Attend a Radiologic Technology Information Session at HCC. Dates will be posted on our website: <http://www.howardcc.edu/admissions>; select Nursing and Allied Health.

STEP 3

Meet individually with an HCC Allied Health admissions advisor to review the admissions process and required course work. For more information, you may call HCC's Allied Health Information Line at 410-772-4230 or e-mail: alliedhealth@howardcc.edu

STEP 4

Submit to HCC an official copy of your high school transcript, GED diploma, or Maryland External Diploma to verify high school completion, along with *official* copies of college transcripts from each institution previously attended (if applicable). Students must also submit a Transcript Evaluation Request Form along with any college transcripts. This form is available in the Office of Admissions and Advising (RCF-242) and online: www.howardcc.edu/admissions; select Important Forms. Students submitting foreign transcripts are required to complete additional procedures and are encouraged to meet with an allied health advisor. College transcripts must be received by the February 15 application deadline; the high school transcript should be submitted with the application, but must be received no later than May 1.

STEP 5

Demonstrate eligibility for ENGL-121 (College Composition I: Expository Writing) by:

- taking the English placement exam and placing into ENGL-121; **or**
- successfully completing ENGL-121 (or equivalent) at another institution; **or**
- achieving specific scores on the SAT or ACT exams; **or**
- successfully completing developmental English courses required as a result of your scores on HCC's English placement exam.

STEP 6

Submit a **Supplemental Application for Radiologic Technology Clinical Coursework** during the application period of **September 15 – February 15**. Applications will be available in the Office of Admissions & Advising, as well as on the web: www.howardcc.edu/admissions. A \$25 application fee must be submitted beginning with applications for the Summer 2009 program.

Application Deadline

The supplemental application for the Radiologic Technology A.A.S. degree program **must** be submitted to the Office of Admissions and Advising (RCF-242) between September 15 and February 15. **Please note: The February 15 deadline is final, and is strictly upheld. Students who are mailing in their applications are strongly urged to do so using the U.S. option of “return receipt requested”.** The date on which your supplemental application is submitted has no bearing on your acceptance into the program as long as it is submitted by the deadline date.

Selection Process

A lottery will be held to select applicants for the clinical portion of the Radiologic Technology program, whenever the number of qualified new applicants exceeds the number of available seats. Though applications may only be submitted between September 15 – February 15, applications submitted by the February 15 deadline will be reviewed and considered during two time periods:

1. **First Admission Period [late February]:** The applications of students who have completed *all* prerequisite courses and additional admission requirements by the end of the Winter semester are considered during the first admission period.

2. **Second Admission Period [late May]:** Students who finish their prerequisite courses and additional requirements *in the Spring semester* are considered during the second admission period. If there are still seats remaining in the class after the first admission period, seats will be offered to as many qualified applicants as possible once Spring grades are received.

Separate lotteries are held for first and second admission period candidates. Within each lottery, Howard County residents are selected first; in-state, but out-of-county residents are selected next; out-of-state residents are selected next; international citizens (F-1 students are not currently eligible to apply) are selected next. Once all seats have been filled, remaining qualified applicants will be assigned a waiting list number. If seats become available after the deadline for admitted students to register, waiting list students will be admitted into the program. The waiting list will be maintained for the subsequent clinical year.

CRIMINAL BACKGROUND CHECK

Effective Spring 2007, all students enrolled in clinical portions of HCC's allied health programs will be required to obtain a criminal background check through the authorized services of Pre-Check, Inc. The timeline for ordering this background check is very specific; students should *not* order this background check *until instructed to do so by a college official*.

The cost for this service is \$48.50, and must be paid by the student directly to Pre-Check, Inc. The criminal background check will only need to be completed one time as long as the student maintains continuous enrollment in the program. Students who incur any break in the sequence of study will be required to obtain a new criminal background check through Pre-Check, Inc., upon readmission or re-enrollment. *Students without a current criminal background check will not be eligible to participate in clinical courses.*

Based on the criminal background check, the clinical agency to which the student has been assigned will grant approval or disapproval for the student to attend clinicals at that site. Clinical agencies have the right to deny access to any student whose criminal background check does not meet their acceptable minimum standards. *Students who have been deemed ineligible by the agencies affiliated with the course may not be able to progress to completion in the selected program of study.*

PROGRAM COSTS

For the 2008-2009 school year, in-county tuition is \$114/credit. The Consolidated Fee is \$19.10/credit. Course costs below include in-county tuition, consolidated fees, and course fees. Figures are **estimates** only and are subject to change. Students will incur additional costs for any necessary developmental English and/or math courses, as well as for books each semester.

HCC general application	\$25
Rad Tech clinical application	\$25
Criminal Background Check	\$50
Uniform and Equipment	\$150
Prerequisite Science/Math Courses (15 credits)	\$2175
General Education Courses (12 credits)	\$1692
Clinical Courses (approximately 47 credits)	\$6500
Approximate Total Cost	\$10,617

PAY FOR COLLEGE

HCC offers financial assistance to allied health students through a variety of sources. Students may apply for financial aid from federal and state agencies. Financial aid from these sources includes grants, loans, and work study programs. To determine eligibility for these funds, students must complete both the Free Application for Federal Student Aid (FAFSA) and HCC's financial aid application by March 1. Students may also apply for scholarships directly through HCC and the state of Maryland.

HCC recognizes that interested students may need more information about paying for college. The college has many services to help students manage college costs, including financial aid and a tuition payment plan. To find out more please visit our Paying for College website:

<http://www.howardcc.edu/admissions/pay/index.html>.

ADDITIONAL REQUIREMENTS FOR SELECTED APPLICANTS

Students must fulfill additional requirements after being selected for the clinical program.

Failure to complete these requirements may result in forfeiture of the clinical seat.

Selected students must:

- **Attend a *mandatory orientation in the spring, prior to the start of the program.*** (Some students on the waiting list may also be required to attend this session.) During the orientation students will receive information on the Rad Tech curriculum, clinical sites, health certifications and CPR requirements, and the criminal background check.
- **Submit the Health Examination Form.** Once a physician validates that the candidate meets the technical standards of good physical health which are essential to the performance of radiography duties and responsibilities, and the department receives and concurs with the physician's certification, the candidate will be considered to have met the technical standard requirement.
- **Complete the American Heart Association's CPR for Health Care Providers.** This CPR certification must be valid throughout the duration of the clinical program.
- **Order a criminal background check through the services of PreCheck, Inc.** Students are responsible for ordering and paying for the background check, and must submit a receipt. The timeline for ordering this background check is very specific; students should *not* order this background check until instructed to do so by a college official.
- **Purchase uniforms and other equipment.** Admitted students will receive information at orientation regarding the requirements for uniforms and basic equipment.

Please note that all proposed procedures, dates, and requirements are subject to change.

**Radiologic Technology - AAS
Program Number 238
Program Planning Sheet**

Student Name: _____

Catalog Year: 2008-2009

Student ID Number: _____

GENERAL EDUCATION CORE

Course Number	General Education Core	Credits Required	Credits Earned	Planning
ENGL 121	College Composition I: Expository Writing	3		
Arts & Humanities	Arts and Humanities Core Course (one course from either Literature, Fine Arts, or Humanities)	3		
PSYC 101	General Psychology	3		
BIOL 101 or 107	General Biology I or Fundamentals of Microbiology (or equivalent)	4		prerequisite
BIOL 203	Anatomy & Physiology I	4		prerequisite
MATH 131	College Algebra (or 133, 135, 140/181 or higher)	3		prerequisite
Total Core Credits - minimum of 20 required for degree completion				

REQUIRED COURSES RELATED TO MAJOR

Course Number	Required Course	Credits Required	Credits Earned	Planning
ENGL 122	College Composition II: Writing Through Literature	3		
BIOL 204	Anatomy & Physiology II	4		prerequisite

RADIOLOGIC TECHNOLOGY COURSES

Course Number	Required Course	Credits Required	Credits Earned	Planning
RADT-101	Introduction to Procedures	4		
RADT-111	Radiologic Procedures I	4		
RADT-112	Clinical Radiography I	4		
RADT-121	Radiologic Procedures II	4		
RADT-122	Clinical Radiography II	4		
RADT-211	Radiologic Procedures III	4		
RADT-212	Clinical Radiography III	4		
RADT-231	Radiologic Procedures IV	4		
RADT-232	Clinical Radiography IV	4		
RADT-240	Advanced Radiology Patient Management Techniques	4		
RADT-251	Radiation Biology and Protection	2		
RADT-252	Clinical Radiography V	4		

A grade of C or better is required in all prerequisite science and math courses, as well as all clinical courses.

To be eligible for clinical coursework, students must complete all prerequisite courses with a grade of C or higher; AND at least one of the three prerequisite SCIENCE courses must be completed with a grade of A or B.

The introductory Biology course (BIOL-101, 107, or 200) must be completed within 10 years of applying for the Rad Tech program. Anatomy & Physiology courses (BIOL-203 and 204) must be completed within 5 years of applying for the Rad Tech program.

Students in this program must meet with an advisor regularly.

NOTES:

Developmental Courses: _____

Advisor: _____ Date: _____ GPA: _____