Radiology Technology, AAS
School of Health Professions

Program Description

The Radiology Technology AAS program offers the academic preparation and clinical training needed for a career as a Radiologic Technologist (radiographer). While many radiographers provide services in a hospital setting, others provide services in stand- alone medical imaging centers, mobile radiography providers and private physician offices. Radiography is the gateway to other specialized imaging modalities. With additional education through either employer based training or formal education, radiographers can progress to careers in Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Angiography, Mammography and Quality Management. The program includes clinical experience in various off campus locations that provide radiologic imaging services.

Students who complete the Radiology technology program satisfactorily are eligible to apply to take the American Registry of Radiologic Technologists (ARRT) national certification exam.

Career Opportunities

Students completing this program will be qualified to enter the work force as an entry-level radiographer. Radiographers may find employment opportunities with hospitals, stand-alone medical imaging centers, mobile imaging providers, and private practice physicians.

Special Admission and Selection Criteria

Selection to the Radiology Technology program is highly competitive and enrollment is limited. Specific criteria for admission and selection are as follows:

- Applicants must be graduates of an accredited secondary school program or hold a GED equivalency certificate prior to the time of application.
- Students must attend a placement assessment and educational planning session and complete any developmental courses that may be required based on the placement assessment by the application deadline.
- Applicants must complete BIO 171 with a grade of "C" or better prior to beginning the program.
- If there are more qualified applicants than available seats, the Radiology Technology program uses a selective admission process based on GPA and/or performance in courses transferred in that are program relevant.
- Applicants to the radiology program should review the ARRT rules and regulations and the ARRT standard of ethics prior to submitting their application. Information can be found on the ARRT website, http://www.arrt.org
- High school preparation should include one year each of biology, physics and chemistry. If these courses were not taken in high school, BIO 107, PHY 110 and CHM 107 must be completed prior to the start of the radiology technology program with a minimum "C" grade or better (C minus grade not accepted.) Algebra level will be assessed by the placement process or successful completion of MTH 100 prior to program start.
- Applicants who have completed 15 or more college-level credits towards a GPA at WCCC must attain a minimum 2.5 GPA:
  - Students with less than 15 college-level credits at WCCC will be evaluated based on:
    - a minimum 2.5 GPA overall if the applicant has completed 15 or more college-level credits at other post-secondary institutions OR
    - a minimum 3.0 High School GPA OR
    - a minimum 165 on the GED (minimum 15 on HiSET subtests)
  - If GPA is less than 2.5, one or more of these courses may be repeated to meet the requirements before testing.
  - Transfer courses are not calculated into the GPA
  - Preference may be given to applicants who exceed the minimums.

Application Process for Health Professions Programs

- Complete and submit an Application for Admission to Westmoreland County Community College.
- Complete and submit an application for the specific Health Profession Program (Dental Assisting, Dental Hygiene, Expanded Functions Dental Assisting, Medical Assisting, Nursing*, Phlebotomy/Specimen Processing*, Surgical Technology or Radiology).
- Submit all required documents to the Admissions Office by the deadline.
- Submit official transcript from all secondary schools attended, graduate equivalency degree (GED) programs and any other formal educational program beyond high school.

For Fall Start:

Application Deadline – January 12 prior to Fall start
Acceptance Notification – Mid-March

Final Admission Criteria

Students accepted into the School of Health Professions including Nursing, Dental Programs, Radiology, Medical Assisting, Phlebotomy, Surgical Technology and Specimen Processing are required to have a health clearance, criminal background check, child abuse history and drug screening at the student's expense.

The Program Director of each Health Profession Program gives the accepted student directions for setting up a password-secure Castle Branch Account.

Castle Branch is the background screening and compliance tracking company, which provides Westmoreland County Community College Health Profession Programs with student background screening services.

Castle Branch background screening and compliance management includes:

- Background Checks (FBI Fingerprint Check, Criminal Background Check and Child Abuse Clearances)
- Urine Drug Screen
- Immunization and Record Tracking

- Houses Tuberculosis screening results
- CPR Training Documentation
- Liability Insurance (if applicable for program)
- Houses the results of the Required Health Physical.

Final admission is conditional pending:

- Receipt of Urine Drug Screen to determine if there are any substances that will prevent the applicant from participating in clinical experiences or bar entry into Health Profession Programs.
- Receipt and evaluation of Criminal Background Check to determine if there is any conviction that may bar the applicant from entering the Health Profession Programs.
- Receipt of proof of vaccinations including, but not limited to, MMR, Varicella, Tdap, HepB, Flu, and COVID-19 that are necessary to participate in clinical experiences.
- Receipt of Child Abuse History to determine if there is any conviction that may bar the applicant from entering the Health Profession Programs.

Essential Cognitive, Physical, and Behavioral Functions

The Westmoreland County Community College Health Profession Programs including Nursing, Dental Programs, Radiology, Medical Assisting, Surgical Technology, Phlebotomy and Specimen Processing require that students meet certain functional abilities essential to each program. A detailed list is available in each program's handbook.

Please be aware that based on ongoing changes occurring in the Radiology Profession, it may be necessary to modify courses listed in this catalog to meet changing practice competencies.

Readmission Policy

Students returning to the program after removal must successfully complete laboratory remediation from a tutor and a laboratory exam commensurate with the knowledge level when the student left the program.

Purpose

The radiology technology program provides students with a complete educational experience for those who wish to become health-care providers. The radiology technology program provides each student opportunities to learn and develop competence in patient care, communication skills, critical thinking and technical skills that will permit the student to become a Diagnostic Radiologic Technologist. Integrated educational activities include lecture, laboratory activities, case studies and hands-on clinical training.

Program Mission

Our mission is to provide students with a variety of educational activities and experiences that will prepare them with a level of expertise required to become competent and successful radiographers.

Program Learning Outcomes

1. By the end of the program, students will be able to provide radiographic imaging services within a healthcare setting for a diverse patient population with an awareness of cultural diversity within the community.
2. By the end of the program, students will be able to demonstrate use of the ALARA principle to minimize radiation exposure to the patient, themselves, and the general public.
3. By the end of the program, students will be able to operate various pieces of radiologic equipment safely and effectively to expose, process and evaluate all types of radiographic images.
4. By the end of the program, students will be able to apply computation skills to provide safe medical radiation to patients by developing a thorough understanding of the creation and safe application of medical radiation.
5. By the end of the program, students will be able to use computers and computerized equipment in the process of imaging and caring for patients.
6. By the end of the program, students will be able to demonstrate appropriate practice standards that meet all of the Ethical requirements of the ARRT practice standards as well as maintain all the confidentiality requirements of HIPAA.
7. By the end of the program, students will be able to utilize and demonstrate effective interpersonal skills in treating a diverse population of patients as well as communicating with other members of the health care team.
8. By the end of the program, students will be able to demonstrate proficiency in dealing with life threatening medical emergencies that could occur in the radiology environment as assessed by simulated activities in the lab setting.
9. By the end of the program, students will be able to independently use critical thinking to adjust the radiographic imaging plan based on physiologic condition or recognized disease process.

Program Goals

- To produce graduates prepared for entry into the healthcare field.
- To produce graduates who have demonstrated the skills, professional values and ethics to function as entry-level radiographers.
- To produce graduates with the ability to think independently and value lifelong learning.
- To produce graduates with the ability to effectively communicate with patients and other health care providers.
- To produce graduates prepared for the American registry of radiologic technologist examination.

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Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
Prior to Application Deadline	1	BIO 171	Anatomy and Physiology I	4	CHM 107, CHM 150/151, CHM 225 or HS Chemistry and ENG 095 or Placement	
1st Fall	2	PDV 101	First Year Seminar	1		
	3	ALH 122	Medical Terminology	3		
	4	BIO 172	Anatomy and Physiology II	4	BIO 171 with a "C" grade or better	
	5	RAD 111	Radiographic Procedures and Patient Care I	4	BIO 171; Co: ALH 122, BIO 172, RAD 121	
	6	RAD 121	Principles of Radiographic Image Capture and Display	3	BIO 171; Co: ALH 122, BIO 172, RAD 111	
1st Spring	7	PHY 125	Physics for Radiology	3	PHY 110 or HS Physics	
	8	MTH 157	College Algebra	3	MTH 100 or Placement	
	9	RAD 131	Digital Image Acquisition and Display	3	RAD 111, RAD 121; Co: MTH 157, PHY 125, RAD 142, RAD 146	
	10	RAD 141	Radiographic Procedures and Patient Care II	4	RAD 111, RAD 121; Co: MTH 157, PHY 125, RAD 131, RAD 146	
	11	RAD 146	Clinical Education I	4	RAD 111, RAD 121; Co: PHY 125, RAD 131, RAD 141	
1st Summer	12	RAD 215	Clinical Education II	3	RAD 131, RAD 141, RAD 146	
	13	RAD 255	Clinical Education III	3	RAD 215	
2nd Fall	14	CPT 150	Microcomputer Concepts	3		
	15	ENG 161	College Writing	3	ENG 085 or Placement	
	16	PSY 160	General Psychology	3		
	17	RAD 211	Radiation Biology and Protection, Radiologic Procedures III, and Career Prep	4	RAD 215, RAD 255	
	18	RAD 216	Clinical Education IV	4	Co: RAD 211	
2nd Spring	19	ENG 162	Technical Communication	3	ENG 161	
	20	RAD 221	Radiographic Pathology	3	RAD 211, RAD 216	
	21	RAD 226	Clinical Education V	5	Co: RAD 221, RAD 231	
	22	RAD 231	Radiology Technology Capstone	1	Co: RAD 221, RAD 226	
	23	SPC 156	Interpersonal Communication	3		
Minimum Program Credits				74		RAD