RADIOLOGICAL SCIENCES, A.S.

Begin Campus: New Kensington, Schuylkill
End Campus: New Kensington, Schuylkill

Program Description
For students interested in pursuing an education in the paramedical field of radiography (radiologic technology), the radiological sciences major meets the educational and clinical requirements for the graduate to function as an entry-level radiographer. Required course work is divided into three interrelated areas including general education, radiography specific, and clinical education components. During the clinical education component, students perform radiographic exams under the directed supervision of certified radiographers at multiple area clinical education settings. The clinical component emphasizes the concepts of team practice and patient-centered care. Both the radiography-specific course work and the clinical component are structured sequentially over six or seven consecutive semesters, commencing each fall semester. Upon successful completion of the 72-credit associate degree, the graduate will be eligible to attempt the American Registry of Radiologic Technologists (ARRT) examination for certification.

What is Radiological Sciences?
Radiography is a science combining medical imaging technology with human compassion. Radiologic technologists, often referred to as radiographers, apply their knowledge of physics, human anatomy and physiology to create permanent radiographic images that assist in the examination, diagnosis, and treatment of medical conditions in the body. These imaging professionals provide a wide range of services using technology founded on theoretical knowledge and scientific concepts. As a part of the healthcare team, the radiographers provide patient care using safe radiation practices; operate sophisticated technical equipment; exercise independent judgment; and make informed decisions daily. All program graduates are prepared, both academically and clinically, to join a healthcare team.

You Might Like This Program If...
- You have a desire to help people and a passion for patient care.
- You want to pursue a career that includes math and sciences.
- You want to be a part of diagnosis and treatment of patients.
- You want to pursue a career in the health field.
- You thrive in a field where technology is ever evolving.
- You have a passion for lifelong learning.

Entrance to Major
Students must have a minimum 2.0 GPA to change to this Associate degree after admission to the University.

Additional Information
Radiologic Science students are required to submit criminal background records, must have a complete physical, including documentation of required immunizations, Hepatitis B vaccine, current Tuberculosis (TB) screening test, routine drug testing and other medical tests as required by clinical facilities. Students are required to purchase liability insurance.

Degree Requirements
For the Associate in Science degree in Radiological Sciences, a minimum of 72 credits is required:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>66</td>
</tr>
</tbody>
</table>

15 of the 21 credits for General Education are included in the Requirements for the Major. This includes: 3 credits of GH courses; 3 credits of GN courses; 3 credits of GQ courses; 3 credits of GS; 3 credits of GWS courses.

General Education
Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (http://bulletins.psu.edu/undergraduate/general-education/associate-degree-general-education-program) section of the Bulletin and consult your academic adviser.

Foundations (grade of C or better is required.)
- Quantification (GQ): 3 credits
- Writing and Speaking (GWS): 3 credits

Knowledge Domains
- Arts (GA): 3 credits
- Humanities (GH): 3 credits
- Social and Behavioral Sciences (GS): 3 credits
- Natural Sciences (GN): 3 credits

Foundations or Knowledge Domains
- A General Education course selected from GWS, GQ, GN, GA, GH, or GS, and may include Integrative Studies (Inter-domain or Linked) courses: 3 credits

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

University Degree Requirements

Cultures Requirement
3 credits of United States (US) or International (IL) cultures coursework are required and may satisfy other requirements

Writing Across the Curriculum
3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits
A minimum of 60 degree credits must be earned for a associates degree. The requirements for some programs may exceed 60 credits. Students should consult with their college or department adviser for information on specific credit requirements.
Quality of Work
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition
Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80). For more information, check the Suggested Academic Plan for your intended program.

Requirements for the Major
To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Program Learning Objectives
New Kensington Campus
Practice as Entry Level Technologists
1. The student will provide proper radiation protection.
2. The student will demonstrate proper positioning skills.
3. The student will evaluate diagnostic images.

Effectively Communicate in the Healthcare Environment
1. The student will demonstrate effective written communication skills.
2. The student will provide effective oral communication skills.
3. The student will treat patients with compassion.

Think Critically and Apply Problem Solving Skills in the Healthcare Environment
1. The student will manipulate technical factors to produce diagnostic images.
2. The student will modify procedures to meet patient needs.

Understand and Promote the Importance of Professional Growth and Development
1. The student will demonstrate professional behavior and participate in professional organizations.
2. The student will develop a career portfolio and plan for compliance within the profession.

Academic Advising
The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy)

New Kensington
Debra Majetic
Lecturer
3550 Seventh Street Rd.
New Kensington, PA 15068
724-334-6738
dak25@psu.edu

Schuylkill
Hilary Yotko
Interim Radiologic Sciences Program Coordinator
The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

### First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
<th>Summer</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADSC 101†</td>
<td>4</td>
<td>RADSC 102†</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADSC 110†</td>
<td>3</td>
<td>RADSC 220†</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADSC 295A‡</td>
<td>1.5</td>
<td>RADSC 295B</td>
<td>1</td>
<td>RADSC 295C‡</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 129‡</td>
<td>4</td>
<td>MATH 21†</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IST 110‡</td>
<td>3</td>
<td>General Education Course (Preferred Music 9)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.5</td>
<td>14</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Second Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
<th>Summer</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADSC 204†</td>
<td>3</td>
<td>RADSC 205†</td>
<td>3</td>
<td>RADSC 207†</td>
<td>4</td>
</tr>
<tr>
<td>RADSC 230†</td>
<td>3</td>
<td>RADSC 206†</td>
<td>3</td>
<td>RADSC 295F‡</td>
<td>2</td>
</tr>
<tr>
<td>RADSC 295D†</td>
<td>1.0</td>
<td>RADSC 240†</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHIL 103‡</td>
<td>3</td>
<td>RADSC 295E‡</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 15†</td>
<td>3</td>
<td>BIOL 141†</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education Course (Preferred Psych 100)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>12.5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits 72**

* Course requires a grade of C or better for the major
† Course requires a grade of C or better for General Education
‡ Course requires a grade of C or better for General Education
# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement

### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GN, GA, GH, and GS). Foundations courses (GWS and GQ) require a grade of 'C' or better.

Integrative Studies courses can be completed for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

### Schuylkill Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

### Third Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADSC 207†</td>
<td>4</td>
</tr>
<tr>
<td>RADSC 295I†</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits 72**

* Course requires a grade of C or better for the major
† Course requires a grade of C or better for General Education
‡ Course requires a grade of C or better for General Education
# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement

### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures).
W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GN, GA, GH, and GS). Foundations courses (GWS and GQ) require a grade of ‘C’ or better.

Integrative Studies courses can be completed for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

Career Paths
Radiologic technologists are needed in a variety of professional settings, including hospitals, healthcare facilities, physician offices, and research centers. Radiologic technologists may also pursue career opportunities in equipment sales and education. Careers in radiography offer flexible work schedules that accommodate various lifestyles and employment needs. Opportunities exist to pursue advanced degrees. Program coordinators often assist students in their quest to identify potential schools and programs to continue their studies and further their professional development.

Careers
Upon program completion, graduates are eligible to apply to take the American Registry of Radiologic Technologists certification examination in radiography. Registered radiologic technologists may pursue various career options and complete advanced training to perform sonography, MRI and CT.

Opportunities for Graduate Studies
Students graduating from this program may apply their credits earned toward a bachelor’s of science degree in Applied Health Studies at the Pennsylvania College of Technology, which will help further their careers in management or education.

Professional Resources
• The Pennsylvania Society of Radiologic Technologists (PSRT) (http://psrtonline.org)
• American Society of Radiologic Technologists (https://asrt.org)
• American Registry of Radiologic Technologists (https://arrt.org)

Accreditation
Penn State recognizes the need for continuous program assessment. The Radiologic Sciences program is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The JRCERT provides programmatic accreditation and ensures the Radiological Sciences Program follows established standards. The JRCERT is the only agency recognized by the United States Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA), for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. JRCERT can be contacted at: The Joint Review Committee on Education in Radiologic Technology 20 N. Wacker Drive, Suite 2850 Chicago, IL 60606-3182, Phone: 312-704-5300.

MORE INFORMATION ABOUT THE JOINT REVIEW COMMITTEE ON EDUCATION IN RADIOLOGIC TECHNOLOGY (https://www.jrcert.org)