Radiologic Sciences

Radiologic Sciences Major

Radiographers, also known as radiologic technologists, perform diagnostic imaging examinations to assist physicians to diagnose or rule out disease or injury.

A Bachelor of Science degree, major in Radiologic Sciences (RS), includes two or more years of rigorous academic course work on campus and a two-year full-time professional level internship in an affiliated hospital-based school of radiologic technology that includes classroom and clinical education specific to diagnostic radiography. Graduates are eligible to write the national certifying examination administered by the American Registry of Radiologic Technologists (ARRT) to become a registered technologist in radiography, RT(R).

A strong science and math aptitude is important for RS majors to possess since academic course work includes chemistry, physics, anatomy and physiology, microbiology, trigonometry, and statistics, in addition to general education courses. The full-time two-year professional level internship (60 credits) consists of classroom and clinical instruction in patient care procedures, radiation physics and protection, principles of imaging, positioning, radiobiology, and pathology.

Students who have completed the prerequisite course work on campus and meet the GPA and grade requirements may be eligible to apply for the professional internship. Transfer students must complete a minimum of 20 resident credits at NDSU prior to the start of the professional program to be eligible to apply. NDSU has affiliation agreements with ten hospital-based schools of radiologic technology that are accredited by the Joint Review Committee for Education in Radiologic Technology (JRCERT). Admission into the internship is competitive. Specific admission criteria are established by each affiliated hospital program and generally includes completion of required courses, academic achievement, references, related experience, and an interview. In addition, students must comply with criminal background and conduct requirements.

During the professional internship, specific letter grades are assigned by the hospital program, maintained on their program’s official transcript, and are not included in calculation of NDSU’s grade point average. Official transcripts are available upon written request from the hospital program. An NDSU grade of ‘Pass’ is awarded for successful completion of each term of the internship.

Information about the profession, curriculum, internship, and advising contacts are available from the Department of Allied Sciences (https://www.ndsu.edu/alliedsciences).

Major Requirements

Radiologic Sciences Major

Degree Type: B.S.
Required Degree Credits to Graduate: 132

General Education Requirements

First Year Experience (F):
UNIV 189 Skills For Academic Success (Students transferring in 24 or more credits do not need to take UNIV 189) 1

Communication (C):
ENGL 110 College Composition I 3
ENGL 120 College Composition II 3

One Course of Upper Level Writing. Select one of the following: 3
- ENGL 320 Business and Professional Writing
- ENGL 321 Writing in the Technical Professions
- ENGL 322 Writing and the Creative Process
- ENGL 323 Creative Writing
- ENGL 324 Writing in the Sciences
- ENGL 325 Writing in the Health Professions
- ENGL 358 Writing in the Humanities and Social Sciences
- ENGL 459 Researching and Writing Grants and Proposal
- COMM 110 Fundamentals of Public Speaking 3

Quantitative Reasoning (R):
STAT 330 Introductory Statistics 3

Science & Technology (S):
BIOL 220 Human Anatomy and Physiology I 4
& 220L and Human Anatomy and Physiology I Laboratory
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 117 &amp; 117L</td>
<td>Chemical Concepts and Applications and Chem Concepts and Applications Lab</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 114</td>
<td>Microcomputer Packages</td>
<td>3-4</td>
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<tr>
<td>or CSCI 116</td>
<td>Business Use of Computers</td>
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**Humanities & Fine Arts (A): Select from current general education list**

**Social & Behavioral Sciences (B):**
- PSYC 111 Introduction to Psychology 3
- Select from current general education list 3

**Wellness (W): Select from current general education list**

**Cultural Diversity (D): Select from current general education list**

**Global Perspectives (G): Select from current general education list**

**Total Credits** 41-42

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**Major Requirements**

**General Education Requirements**

**Radiologic Science Major Requirements**
- RS 200 Introduction to Radiologic Sciences 1
- RS 496 Field Experience 60

*Professional education (internship) within an accredited affiliated school of radiologic technology includes the capstone experience.*

**Related Courses Required:**
- BIOL 221 Human Anatomy and Physiology II 4
  & 221L and Human Anatomy and Physiology II Laboratory
- CHEM 260 Elements of Biochemistry 3-4
  or BIOC 460 Foundations of Biochemistry and Molecular Biology I
- MATH 105 Trigonometry (or higher level) 3
- Select one microbiology course and lab from the following: 3-5
  - MICR 202 & 202L Introductory Microbiology
  and Introductory Microbiology Lab
  - MICR 350 & 350L General Microbiology
  and General Microbiology Lab
  - PHRM 125 Medical Terminology for Health Professionals 1
  or PHRM 300 Principles of Clinical Pharmacology 2-3
- PHYS 211 College Physics I 4
  & 211L and College Physics I Laboratory
- PHYS 212 College Physics II 4
  & 212L and College Physics II Laboratory

**Special Major Electives (department approved)**
- Sociology: Select one of the following: 3
  - SOC 426 Sociology of Medicine
  - SOC 440 Sociology of Aging
  - SOC 441 Death and Dying
- Communication: Select one of the following: 3
  - COMM 308 Business and Professional Speaking
  - COMM 315 Small Group Communication
  - COMM 380 Health Communication I
  - COMM 381 Patient-Provider Communication
  - COMM 383 Organizational Communication I

**Total Credits** 132-136
Degree Requirements and Notes

• All required courses must be completed with a grade of 'C' or above. All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College.

• Completion of the prerequisites does not guarantee a student internship. Selection of interns is competitive. Please consult your Radiologic Sciences advisor for more information.