

RADIOLOGIC TECHNOLOGY (B.S.)

Office: 5142 EACPHS; 313-916-1348

Program Director: Sarah Borland

Chairperson: Sara Maher

The Bachelor of Science in Radiologic Technology is a four-year degree program consisting of two years of pre-professional courses and two years of professional courses. The program complies with the professional curriculum of the American Society of Radiologic Technologists. Upon completion of the program, a student receives a Bachelor of Science Degree in Radiologic Technology and is eligible to take the national certifying examination administered by The American Registry of Radiologic Technologists.

The program is accredited by the:

Joint Review Committee on Education in Radiologic Technology (<http://www.jrcert.org>) (JRCERT)

20 N. Wacker Drive

Chicago IL 60606-3182

telephone: 312-704-5300; Fax: 312-704-5304

Admission to Pre-professional Program

The first two years (pre-professional program) are taken in the College of Liberal Arts and Sciences, the admission requirements of which are satisfied by general admission (<http://bulletins.wayne.edu/undergraduate/general-information/admission>) to the University. Students should consult with an Academic Services Officer in the Office of Student Affairs at the Eugene Applebaum College of Pharmacy and Health Sciences regarding course selection. Students may seek additional career advisement from the Radiologic Technology program faculty during their pre-professional program.

Recommended High School Preparation: Students interested in a career in Radiologic Technology should take as many of the following courses as possible: biology, chemistry, mathematics, physics, computer science, keyboarding, speech, and composition.

Admission to Professional Program

Admission to the professional program requires completion of the above pre-professional course requirements and satisfaction of specific admission requirements listed below. The application deadline is November 30 for matriculation into the professional program for the subsequent Spring/Summer term. Prospective students may contact the program for additional information early in their University studies (313-916-1348).

Students are urged to attend a Monthly Information Meeting (<http://www.cphs.wayne.edu/meetings.php>), held on the first Tuesday of each month, for advising and application deadline dates a year before they plan to enter.

Since the applicants who are admitted will eventually be working as members of a health care team, the admissions committee evaluates candidates based on their personal qualities as well as their academic achievement. Therefore, throughout the interview and the completion of other application requirements, such criteria as a student's maturity, motivation, knowledge of the profession, interpersonal skills, personal integrity, and empathy for others is evaluated.

Admission Requirements: The student wishing to apply to the professional program must meet the following admission requirements:

1. Completion (minimum grade of "C" 2.0 where A = 4.0) of all pre-professional courses (or their equivalents) by the end of the Winter semester, prior to beginning the professional program. BIO 3200 (or equivalent) must be completed by December of the year of application.
2. Hold a grade point average of 2.80 or above in pre-professional courses and 2.80 ('A' = 4.00) for all college level work at all institutions attended.
3. Completion of the professional program application (<http://www.cphs.wayne.edu>) form and associated requirements and submission of official transcripts to:

Eugene Applebaum College of Pharmacy and Health Sciences
Office of Student Affairs
259 Mack Avenue, Suite 1600
Detroit, MI 48201

APPLICATION DEADLINE: The deadline for applications is November 30. Prospective students are urged to submit applications as early as possible. Specific directions for submitting various application materials are indicated on the website.

APPLICATION REVIEW: All applications will be reviewed for completeness. The Admissions Committee will interview qualified applicants with completed applications submitted by the deadline date. A number of criteria will be evaluated, including academic achievement and personal qualities. Upon completion of all admission interviews, applicants will be notified of the final admission decision. This typically occurs in February.

Pre-professional Curriculum

Each of the following required pre-professional courses (or its equivalent) must be completed with a minimum grade of C (2.0 on a 4.0 scale).

First and Second Years

| Code | Title | Credits |
|---|---|---------|
| BIO 1510 | Basic Life Mechanisms ¹ | 4 |
| BIO 2870 | Anatomy and Physiology | 5 |
| BIO 3200 | Human Physiology | 3 |
| COM 1010 | Oral Communication: Basic Speech | 3 |
| CSC 1000 | Introduction to Computer Science | 3 |
| ENG 1020 or ENG 1050 | Introductory College Writing Freshman Honors: Introductory College Writing | 3 |
| ENG 3010 | Intermediate Writing (or any IC course) | 3 |
| MAT 1800 | Elementary Functions | 4 |
| PHI 2320 | Introduction to Ethics | 3 |
| PHY 1020 | Conceptual Physics: The Basic Science (with lab) | 4 |
| PSY 1010 or PSY 1020 | Introductory Psychology Elements of Psychology | 4 |
| PSY 2400 | Developmental Psychology | 4 |
| STA 1020 | Elementary Statistics | 3 |
| University Requirements (see General Education program) | | |
| Total Credits | | 46 |

¹ Indicates courses or requirements that may be satisfied by examination or course work. Contact the WSU Office of Testing, Evaluation and Research at 313-577-3400 for further information.

Professional Curriculum

Third and Fourth Years

Third Year

| Spring/Summer Semester | | Credits |
|------------------------|---|---------|
| RDT 3100 | Introduction to Radiologic Technology | 2 |
| RDT 3200 | Radiation Biology and Advanced Protection | 3 |
| RDT 3400 | Clinical Education I | 6 |
| Credits | | 11 |

Fall Semester

| | | |
|----------|---------------------------|----|
| RDT 3090 | Directed Study | 1 |
| RDT 3300 | Radiographic Procedures I | 3 |
| RDT 3600 | Clinical Education II | 6 |
| RDT 6500 | Pharmacology | 2 |
| Credits | | 12 |

Winter Semester

| | | |
|----------|----------------------------|----|
| RDT 3500 | Patient Care | 3 |
| RDT 3700 | Radiographic Procedures II | 3 |
| RDT 3900 | Clinical Education III | 6 |
| Credits | | 12 |

Fourth Year

| Spring/Summer Semester | | Credits |
|------------------------|-------------------------|---------|
| RDT 3800 | Cross-Sectional Anatomy | 3 |
| RDT 4300 | Clinical Education IV | 6 |
| Credits | | 9 |

Fall Semester

| | | |
|----------|---------------------------------|----|
| RDT 4100 | Radiographic Quality/Exposure | 3 |
| RDT 4200 | Radiation Physics and Circuitry | 3 |
| RDT 4500 | Clinical Education V | 6 |
| RDT 4800 | Independent Study | 1 |
| Credits | | 13 |

Winter Semester

| | | |
|----------|------------------------|---|
| RDT 4400 | Radiographic Pathology | 3 |
| RDT 4600 | Radiology Seminar | 3 |
| RDT 4700 | Clinical Education VI | 6 |

| | | |
|---------------|---------------------------------|----|
| RDT 4900 | Jurisprudence for Radiographers | 3 |
| Credits | | 15 |
| Total Credits | | 72 |

Additional undergraduate or professional courses may be needed to achieve the minimum 120 credits required to earn the degree.

RDT 3090 Directed Study Cr. 1

Independent study of medical terminology and related vocabulary. Instructor-directed online course. Offered Fall.

Prerequisite: RDT 3100 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 3100 Introduction to Radiologic Technology Cr. 2

Introduction to radiology and hospital procedures. Role of radiographer as a member of the health care team. Offered Spring/Summer.

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 3200 Radiation Biology and Advanced Protection Cr. 3

Radiation protection procedures; radiation interaction with matter and dosage problem solving. Offered Spring/Summer.

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 3300 Radiographic Procedures I Cr. 3

Instruction and practical experience in procedures of positioning for the skeletal system with correlation to related anatomy in medical images. Offered Fall.

Prerequisite: RDT 3100 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 3400 Clinical Education I Cr. 6

Clinical course. Student participates in supervised practice of radiographic procedures, studied in conjunction with didactic coursework. Offered Spring/Summer.

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$55

RDT 3500 Patient Care Cr. 3

Practical application of patient handling; patient assessment, implication of medications and contrast media. BLS certification. Offered Winter.

Prerequisite: RDT 3090 with a minimum grade of C and RDT 3100 with a minimum grade of C and RDT 6500 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$35

RDT 3600 Clinical Education II Cr. 6

Application of didactic theory in practice on patients/clients under supervision of qualified technologists in a clinical setting. Offered Fall.

Prerequisite: RDT 3400 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$50

RDT 3700 Radiographic Procedures II Cr. 3

Continuation of RDT 3300. Additional advanced procedures, including skull, mammography, and gastrointestinal studies. Offered Winter.

Prerequisite: RDT 3300 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$35

RDT 3800 Cross-Sectional Anatomy Cr. 3

Presentation of anatomical structures in sectional format, as encountered in computed tomography or magnetic resonance imaging. Offered Spring/Summer.

Prerequisite: RDT 3300 with a minimum grade of C and RDT 3700 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 3900 Clinical Education III Cr. 6

Minimally supervised clinical experience. Skills practice to proficiency level; additional complex skills. Offered Winter.

Prerequisite: RDT 3600 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4100 Radiographic Quality/Exposure Cr. 3

Practical application of technical exposure factor formulation; imaging systems and subsequent effects of equipment manipulation of images. Offered Fall.

Prerequisite: RDT 3200 with a minimum grade of C and RDT 3300 with a minimum grade of C and RDT 3700 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$35

RDT 4200 Radiation Physics and Circuitry Cr. 3

Radiation physics; tubes and circuits of radiographic equipment. Offered Fall.

Prerequisite: RDT 3200 with a minimum grade of C and RDT 3500 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4300 Clinical Education IV Cr. 6

Continuation of RDT 3900. Offered Spring/Summer.

Prerequisite: RDT 3900 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$30

RDT 4400 Radiographic Pathology Cr. 3

Disease process and how they manifest in imaging modalities. Clarification of modality preference. Offered Winter.

Prerequisite: RDT 3500 with a minimum grade of C and RDT 4500 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4500 Clinical Education V Cr. 6

Supervised clinical experience in performing radiographic procedures on patients in clinical setting. Evaluation of outcomes; application of knowledge at a progressive level. Offered Fall.

Prerequisite: RDT 4300 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

Course Material Fees: \$75

RDT 4600 Radiology Seminar Cr. 1

Introduction to imaging modalities beyond the scope and practice of the general radiographer; emphasis on interventional procedures. Offered Winter.

Prerequisite: RDT 3500 with a minimum grade of C and RDT 3700 with a minimum grade of C and RDT 4100 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4700 Clinical Education VI Cr. 6

Continuation of RDT 4500. Offered Winter.

Prerequisite: RDT 4500 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4800 Independent Study Cr. 1

Satisfies General Education Requirement: Writing Intensive Competency Independent research in radiology. Offered Fall.

Prerequisite: RDT 3090 with a minimum grade of C and RDT 3500 with a minimum grade of C and RDT 3700 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 4900 Jurisprudence for Radiographers Cr. 3

Ethical and legal case studies; research and discussion correlated to philosophical theory and accepted best law practice for general situations in health care and those specific to radiography. Offered Winter.

Prerequisite: PHI 2320 with a minimum grade of C and RDT 3500 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

RDT 6500 Pharmacology Cr. 2

Effects of drug distribution, absorption and excretion as pertaining to physical therapy. Major drug categories, OTC, and nutritional supplements, pertinent to acute and chronic responses to physical therapy; indications, mechanisms, effects. Offered Fall.

Prerequisite: RDT 3100 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BS in Radiologic Technology program.

BORLAND, SARAH B.: M.Ed., Wayne State University; B.S., University of Wisconsin; Clinical Assistant Professor and Program Director

KATH, KATHY: M.S., Walden University; B.A., Stephens College; Clinical Assistant Professor