

RADIOLOGIC SCIENCES (BS), BRIDGE PROGRAM

Degree Requirements

The Department of Radiologic Sciences offers **Registered Radiographers or graduates of JRCERT accredited college-based radiography programs** (ARRT certified) an option to earn a Bachelor of Science in Radiologic Sciences.

This Bridge Bachelor of Science program is designed for:

- Registered Radiographers who do not have a baccalaureate degree.
- Registered Radiographers who have a baccalaureate degree in a major other than Radiologic Sciences, but choose to seek a second baccalaureate degree in Radiologic Sciences.

Registered Radiographers wishing to complete a bachelor's degree in Radiologic Sciences are responsible for completing all requirements from the first and second year of the pre-professional component.

The professional component consists of 1 semester of a bridge course (Summer) and 3 semesters (Fall, Spring, and Summer) of didactic (classroom) and clinical study in Radiologic Sciences. Advanced modalities offered include Mammography, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Vascular Radiography, Radiology Administration, Ultrasound, and Radiation Therapy.

Upon successful completion of the bridge course, the Radiologic Sciences advisor will request for 38 hours of alternative credit (i.e. credit from the first professional year of the Radiologic Sciences program) to be added to the students' Degree Audit.

Students will choose one of three tracks (4 options) for the Second Professional Year.

- Track 1: Option 1 - Two Advanced Modalities (CT, MRI, Mammography, Vascular Radiography)
- Track 1: Option 2 - One Advanced Modality (CT, MRI, Mammography, Vascular Radiography) and Radiology Administration
- Track 2: Ultrasound
- Track 3: Radiation Therapy

Track 1 : Option 1: Advanced Modalities (CT, MRI, Mammography, Vascular Radiography, Radiology Administration)

Choose two advanced imaging modalities. Modalities require two (2) days of clinic and one (1) hour of classroom lecture per week for each modality. Each modality is taught over three semesters (Fall, Spring, and Summer) for a total of 6 semester hours per modality and 6 semester hours of clinic per modality. Advanced modalities include mammography, magnetic resonance imaging (MRI), vascular radiography, or computed tomography (CT).

Professional Component Hours

Bridge Course - 6 semester hours

Second Professional Year - 26 semester hours

Certification

Students completing didactic and clinical requirements in this track will be eligible to apply for certification through the American Registry of Radiologic Technologists (ARRT) in radiography and the advanced modality studied.

Course	Title	Hours
First Year		
Summer		
RAD 491	Prof. Radiological Practice	6
Hours		6
Second Year		
Fall		
RAD 475	Advanced Modality Clinical A	2
RAD 476	Advanced Modality Clinical B	2
RAD 477	Computed Tomography I	2
or RAD 480	or Mammography I - W	
or RAD 483	or Magnetic Resonance Imaging I	
or RAD 486	or Vascular Radiography - W	
RAD 480	Mammography I - W	2
or RAD 477	or Computed Tomography I	
or RAD 483	or Magnetic Resonance Imaging I	
or RAD 486	or Vascular Radiography - W	
Hours		8
Spring		
RAD 496	Radiologic Sci Research I-W	1
RAD 475	Advanced Modality Clinical A	2
RAD 476	Advanced Modality Clinical B	2
RAD 478	Computed Tomography II-W	2
or RAD 481	or Mammography II	
or RAD 484	or Magnetic Reson Imaging II - W	
or RAD 487	or Vascular Radiography II	
RAD 481	Mammography II	2
or RAD 478	or Computed Tomography II-W	
or RAD 484	or Magnetic Reson Imaging II - W	
or RAD 487	or Vascular Radiography II	
Hours		9
Summer		
RAD 497	Rad Science Research II	1
RAD 475	Advanced Modality Clinical A	2
RAD 476	Advanced Modality Clinical B	2
RAD 479	Computed Tomography III	2
or RAD 482	or Mammography III	
or RAD 485	or Magnetic Resonance Imaging III	
or RAD 488	or Vascular Radiography III	
RAD 482	Mammography III	2
or RAD 479	or Computed Tomography III	
or RAD 485	or Magnetic Resonance Imaging III	
or RAD 488	or Vascular Radiography III	
Hours		9
Total Hours		32

Track 1: Option 2 One Advanced Modality (CT, MRI, Mammography, Vascular Radiography) and Radiology Administration

Choose one advanced imaging modality AND radiology administration. One modality requires two (2) days of clinic and one (1) hour of classroom lecture per week for the modality. The modality is taught over three semesters (Fall, Spring, and Summer) for a total of 6 semester hours and 6 semester hours of clinic. Advanced modalities include mammography, magnetic resonance imaging (MRI), vascular radiography, or computed tomography (CT). Radiology Administration is taught over three semesters (Fall, Spring and Summer). Radiology Administration will require a total of 13 semester hours, with no clinical assignments other than a preceptorship that is required in Summer.

Professional Component Hours

Bridge Course - 6 semester hours

Second Professional Year - 27 semester hours

Certification

Students completing didactic and clinical requirements in this track will be eligible to apply for certification through the American Registry of Radiologic Technologists (ARRT) in radiography and the advanced modality studied (excluding radiology administration).

Course	Title	Hours
First Year		
Summer		
RAD 491	Prof. Radiological Practice	6
Hours		6
Second Year		
Fall		
RAD 475	Advanced Modality Clinical A	2
RAD 430	Healthcare Communication	3
RAD 432	Healthcare Human Resource Mgmt	3
RAD 477	Computed Tomography I	2
or RAD 480	or Mammography I - W	
or RAD 483	or Magnetic Resonance Imaging I	
or RAD 486	or Vascular Radiography - W	
Hours		10
Spring		
RAD 496	Radiologic Sci Research I-W	1
RAD 475	Advanced Modality Clinical A	2
RAD 433	Health Care Financial Mgmt	3
RAD 435	Health Care Operations Mgt - W	3
RAD 478	Computed Tomography II-W	2
or RAD 481	or Mammography II	
or RAD 484	or Magnetic Reson Imaging II - W	
or RAD 487	or Vascular Radiography II	
Hours		11
Summer		
RAD 497	Rad Science Research II	1
RAD 475	Advanced Modality Clinical A	2
RAD 440	Radiology Management Preceptor	1
RAD 479	Computed Tomography III	2
or RAD 482	or Mammography III	
or RAD 485	or Magnetic Resonance Imaging III	
or RAD 488	or Vascular Radiography III	
Hours		6
Total Hours		33

Track 2: Ultrasound Only

Students will study ultrasound curriculum only. Ultrasound is taught over 3 semesters (Fall, Spring, and Summer) of didactic (classroom) and clinical study in Radiologic Sciences. Classes and clinical assignments are scheduled Monday – Friday throughout the program.

Professional Component Hours

Bridge Course - 6 semester hours

Second Professional Year - 36 semester hours

Certification

Students who choose this track will **not** be eligible to seek ARRT certification in radiography, but **will** be eligible to apply for eligible to apply for ARRT and American Registry of Diagnostic Medical

Sonographers (ARDMS) certification as an ultrasonographer upon completion of didactic and clinical requirements.

Course	Title	Hours
First Year		
Summer		
RAD 491	Prof. Radiological Practice	6
Hours		6
Second Year		
Fall		
RAD 417	Ultrasound Anatomy & Scanning-W	4
RAD 421	Ultras Physics-Instrumentation	3
RAD 423	Ultrasound Clinical Educ I	6
Hours		13
Spring		
RAD 418	Ultras Anat-Scan Tech-OB-GYN	3
RAD 424	Ultrasound Clinical Educ II	6
RAD 459	Superficial Structures & Neonatal Scanning	3
RAD 496	Radiologic Sci Research I-W	1
Hours		13
Summer		
RAD 425	Ultrasound Clinical Educ III	6
RAD 427	Procedural Guidelines in Ultra	3
RAD 497	Rad Science Research II	1
Hours		10
Total Hours		42

Track 3: Radiation Therapy Only

Students will study radiation therapy curriculum only. Radiation Therapy is taught over 3 semesters (Fall, Spring, and Summer) of didactic (classroom) and clinical study in Radiologic Sciences. Classes and clinical assignments are scheduled Monday – Friday throughout the program.

Professional Component Hours

Bridge Course - 6 semester hours

Second Professional Year - 42 semester hours

Certification

Students who choose this track will **not** be eligible to seek ARRT certification in radiography, but **will** be eligible to apply for ARRT certification in radiation therapy upon completion of didactic and clinical requirements.

Course	Title	Hours
First Year		
Summer		
RAD 491	Prof. Radiological Practice	6
Hours		6
Second Year		
Fall		
RAD 441	Clinical Education I	5
RAD 446	Orientation to Oncology - W	3
RAD 448	Radiation Therapy Physics	3
RAD 450	Patient Care in Oncology	1
RAD 452	Prin Pract of Rad Oncology I	3
Hours		15
Spring		
RAD 442	Clinical Education II	6
RAD 453	Prin Prac of Rad Oncology II	3

RAD 455	Dosimetry and Tx Planning I	3
RAD 458	Cancer Mgt in Oncology - W	3
RAD 496	Radiologic Sci Research I-W	1
Hours		16
Summer		
RAD 443	Clinical Education III	7
RAD 454	Quality Mgt In Rad Oncology	1
RAD 456	Dosimetry and Tx Planning II	2
RAD 497	Rad Science Research II	1
Hours		11
Total Hours		48

General Education Requirements

Code	Title	Hours
General Education Requirements		
<i>Area I- Written Composition</i>		
A. Complete the Following:		
EH 101	English Composition I	3
B:Complete the following:		
EH 102	English Composition II	3
Area II- Humanities & Fine Arts		
A. Complete the following:		
CA 110	Public Speaking	3
B. Select one of the following:		3
EH 215	Brit Lit before 1785	
EH 216	Brit Lit after 1785	
EH 225	Am Lit before 1865	
EH 226	Am Lit after 1865	
EH 235	World Lit before 1650	
EH 236	World Lit after 1650	
C. Select one of the following:		3
ARH 100	Survey of Art	
ARH 103	Art History I	
ARH 123	Art History II	
ARS 101	Art Appreciation	
DRA 110	Introduction to Theatre	
MUL 101	Introduction to Music	
D. Select three hours from the following:		3
AFR 101	Intro to African Amer Studies	
ARH 100	Survey of Art	
ARH 103	Art History I	
ARH 123	Art History II	
ARH 203	Survey of Non-Western Art	
ARH 203	Survey of Non-Western Art	
ARS 101	Art Appreciation	
CLA 110	Intro Anc Greek Roman Culture	
DRA 110	Introduction to Theatre	
EH 215	Brit Lit before 1785	
EH 216	Brit Lit after 1785	
EH 225	Am Lit before 1865	
EH 226	Am Lit after 1865	
EH 235	World Lit before 1650	
EH 236	World Lit after 1650	
LG 101	Introductory Latin I	

LG 102	Introductory Latin II
LG 111	Introductory French I
LG 112	Introductory French II
LG 121	Introductory Chinese I
LG 122	Introductory Chinese II
LG 131	Introductory Spanish I
LG 132	Introductory Spanish II
LG 141	Intro Classical Greek I
LG 142	Intro Classical Greek II
LG 151	Introductory German I
LG 152	Introductory German II
LG 153	Accelerated Intro German
LG 171	Introductory Russian I
LG 172	Introductory Russian II
LG 173	Accelerated Intro Russian
LG 201	Intermediate Latin I
LG 202	Intermediate Latin II
LG 211	Intermediate French I
LG 212	Intermediate French II
LG 213	Accelerated Inter French - H
LG 221	Intermediate Chinese I
LG 222	Intermediate Chinese II
LG 231	Intermediate Spanish I
LG 232	Intermediate Spanish II
LG 234	Inter Spanish Accel -H
LG 241	Interm Classical Greek I
LG 242	Interm Classical Greek II
LG 251	Intermediate German I
LG 252	Intermediate German II
LG 271	Intermediate Russian I
LG 272	Intermediate Russian II
LG 273	Intensive Second Year Russian
LGS 101	Introductory Japanese I
LGS 102	Introductory Japanese II
LGS 106	Introductory Arabic I
LGS 107	Introductory Arabic II
LGS 110	Intro American Sign Language I
LGS 111	Intro American Sign Lang II
LGS 171	Introductory Korean I
LGS 172	Introductory Korean II
LGS 201	Intermediate Japanese I
LGS 202	Intermediate Japanese II
LGS 206	Intermediate Arabic I
LGS 207	Intermediate Arabic II
LGS 210	Intermediate ASL I
LGS 211	Intermediate ASL II
MUL 101	Introduction to Music
PHL 110	Introduction to Philosophy
PHL 120	Critical Thinking
PHL 121	Introduction to Logic
PHL 131	Introduction to Ethics
PHL 231	Social Ethics

PHL 240	Western Philosophy: Classical
REL 100	Intro to the Study of Religion
REL 200	Old Testament/Hebrew Bible
REL 201	Survey of the New Testament

Area III - Natural Sciences & Mathematics**A. Select 3-4 hours from the following: 3**

MA 112	Precalculus Algebra
MA 113	Precalculus Trigonometry
MA 115	Precal Algebra-Trigonometry
MA 120	Calculus and Its Applications
MA 125	Calculus I
MA 126	Calculus II
MA 227	Calculus III
MA 237	Linear Algebra I
MA 238	Differential Equations I

B. Complete the following: 4

BLY 101 & 101L	Life Science I and Life Science I Laboratory
or BLY 121 & 121L	General Biology I and General Biology I Lab

C. Select one of the following 4

BLY 102 & 102L	Life Science II and Life Science II Lab
or BLY 122 & 122L	General Biology II and General Biology II Laboratory
CH 101 & 101L	Survey of Inorg and Org Chem and Survey Inorg-Org Chem Lab
CH 131 & 131L	General Chemistry I and General Chemistry I Lab
CH 132 & 132L	General Chemistry II and General Chemistry II Lab

Area IV - History, Social & Behavioral Sciences**A. Complete the following:**

PSY 120	Introduction to Psychology	3
---------	----------------------------	---

B. Select one of the following: 3

HY 101	HY of Western Civilization I
HY 102	HY of Western Civilization II
HY 135	US History to 1877
HY 136	US History since 1877

C. Select two of the following 6

AN 100	Intro to Cultural Anthropology
AN 101	Intro Archaeology-Bio Anthro
CA 100	Intro to Communication
CA 100	Intro to Communication
CA 211	Interpersonal Comm
ECO 215	Prin of Microeconomics
ECO 216	Prin of Macroeconomics
GEO 114	People, Places, Environment
GEO 115	World Regional Geography
GS 101	Intro to Gender Studies
HY 101	HY of Western Civilization I
HY 102	HY of Western Civilization II
HY 135	US History to 1877

HY 136	US History since 1877
IS 100	Global Issues
IST 201	Seasons of Life
NAS 101	Intro Native American Studies
PSC 130	Intro to US Government
PSY 250	Life Span Development
SY 109	Introductory Sociology
SY 112	Social Problems

Area V - Pre-Professional Required Courses**A. Complete the following:**

BMD 251	Human Anatomy & Physiology I	4
BMD 252	Human Anatomy & Physiology II	4

B. Select 4-5 from the following: 4-5

PH 104 & 104L	Concepts of Physics and Concepts of Physics Laboratory
PH 114 & 114L	Physics with Algebra-Trig I and Alg-Trig Based Physics I Lab

C. Select one of the following: 3

BUS 245	Data Analytics I
ST 210	Stat Reason and Application
ST 305	Applied Stat Health Sciences

Total Hours	56-57
--------------------	--------------

Footnote

All undergraduates must complete two designated writing credit (W) courses, at least one of which must be in the student's major or minor.

Student must complete a 6 credit hour sequence either in literature (Area II- EH 215 & EH 216, EH 225 & EH 226, or EH 235 & EH 236) or history (Area IV - HY 101 & HY 102 or HY 135 & HY 136)