



# **RT PROGRAM STUDENT HANDBOOK**

For

## **BACHELOR OF SCIENCE IN RADIATION SCIENCES (RT/CVI, RT/CT, & RT/MRI TRACKS)**

**2020-2021 Academic Year**

(revised 8/20)

Students are responsible for knowing and adhering to the policies and procedures contained in this handbook. In addition, students are expected to comply with The University of Iowa student policies, and the University of Iowa Hospitals and Clinics' policies on patient, visitor and staff safety obtained at the UIHC Compliance Training Course and Clinical Orientation Session. The program faculty will consult with the student handbook before making decisions that are governed by the policies and procedures within it. The policies and procedures will be enforced equitably for all students. If the student believes a policy has been enforced unfairly, the student should consult the grievance policy for guidance.

**NOTE:**

Except when otherwise noted in the book, the "BSRS program" will refer to the Bachelor of Science in Radiation Sciences program.

Except when otherwise noted in the book, "Program Faculty" will refer to the Program Directors or Radiation Sciences Educators .

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## ORGANIZATION OF BSRS PROGRAM

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### **Director Radiation Science Education**

Anthony Knight, MBA, CNMT, RT (N)

### **Program Director**

Jean E. Wiese, M.S., R.T. (R) (CV) (CT) (MR)

### **UHC Clinical Coordinator**

Lorie Gillitzer, B.S., R.T. (R) (CT) (M)

### **Radiation Sciences Educators**

Holly Bonfig-Becker, B.S., R.T. (R) (M)

Jesse Brennan, B.S., RT(R) (CT)

Travis Ehlinger, B.S., R.T. (R) (MR)

Kathy Martensen, M.A., R.T. (R)

Stephanie Setter, M.B.A, R.T.(R)(MR)

### **Administrative Services Coordinator**

Mary Huinker

## ADVISORY COMMITTEE

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**Director of Radiology Administration**  
**Assistant Radiology Director to UIHC**

Tyler, Artz, CMPE

**Program Director**

Jean Wiese, M.S., R.T. (R) (CV) (CT) (MR)

**UIHC Clinical Coordinator**

Lorie Gillitzer, B.S., R.T. (R) (CT) (M)

**Radiation Sciences Educators**

Holly Bonfig-Becker, B.S., R.T. (R) (M)

Jesse Brennan, B.S., RT(R) (CT)

Travis Ehlinger, B.S., R.T.(R)(MR)

Kathy Martensen, M.A., R.T.(R)

Stephanie Setter, M.B.A, R.T.(R)(MR)

**Adjunct Faculty**

Zanetta Hoehle, M.A., R.T. (R) (CT)(CV)

Kelley Kirby, M.S., RT(R) (MR)

Kelsey Bumsted, B.S., R.T. (R) (VI)

Michael Hamarstrom, B.S., R.T.

(R)(MR)

**Program Vice-Chair of Education Carver**  
**College of Medicine, Radiology Division**

Bruno Policeni MD

**Medical Advisor**

Colin Derdeyn MD

**Radiation Sciences Directors**

Tony Knight, MBA, CNMT, RT(N) Stephanie

Ellingson, MS, RDMS, RVT, RDCS, RT(R)

Jennifer Maiers, MHA, R.T.(R)(CT)(VI)(QM)

Jared Stiles, MSL, R.T.(R)(T)

**Radiology Technical Director**

Janet Roe, RDMS, R.T.(R)

**Radiologic Technologists**

Shelley Stumme, B.S., R.T.(R) (MR) (CT)

Kelli Zimmerman, R.T. (R)

## MISSION STATEMENT, GOALS, & LEARNING OUTCOMES

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### MISSION STATEMENT:

The mission of the Radiologic Technology Education at the University of Iowa is to recruit and provide quality individuals with an ambitious, extensive education that equips them with knowledge, skills, and abilities to provide high quality, compassionate medical imaging. The students will be adaptable to varied healthcare settings with diverse patient populations and effectively interact with other members of the healthcare team to provide the best possible patient care.

### GOALS & LEARNING OUTCOMES:

Goal 1: Graduate clinically competent radiographers.

- Students demonstrate quality positioning skills.
- Students demonstrate quality technical skills.
- Students apply appropriate radiation safety practices.

Goal 2: Students demonstrate effective communication skills.

- Students demonstrate good written medical communication skills.
- Students use effective communication to provide quality patient care.

Goal 3: Students successfully apply critical-thinking and problem-solving skills.

- Students demonstrate the ability to adjust technical factors for nonroutine situations.
- Students demonstrate the ability to adjust positioning for nonroutine situations.

Goal 4: Students understand and practice professionalism.

- Students demonstrate an understanding of professionalism.
- Students adapt to human diversity.

Goal 5: Program is effective at graduating entry level technologists.

- Students graduate from program.
- Graduates attain ARRT radiography certification.
- Graduates seeking radiography employment are employed.
- Employers indicate they would employ another program graduate.
- Alumni indicate they were adequately prepared to perform all of the required job-tasks

## SECTION I - CONTACTS & COMMUNICATION

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### **Address:**

Radiologic Technology Education  
 Radiology C725 GH  
 University of Iowa Hospitals and Clinics  
 200 Hawkins Drive  
 Iowa City, Iowa 52242-1099

### **RT Program Absence Line:**

(319)356 - 0532

### **Telephone Numbers** (319 area code)

Jean Wiese	356-4332	General	356-3359	CT Scanner 1	356-3395
Mary Huinker	356-3861	Fluoroscopy	356-3356	CT Scanner 3	356-4699
Travis Ehlinger	356-8333	Pediatrics	356-1957	CT Scanner 7	356-1880
Stephanie Setter	356-4397	Musculoskeletal	353-7461	CT Scanner 8	356-3198
Lorie Gillitzer	356-8334	Scott Blvd	467-6789		
Holly Bonfig-Becker	356-4334	ETC	356-3657	Command Center	384-6147 or 384-6148
Kathy Martensen	356-3740				
Jesse Brennan	353-8639	Sports Medicine	467-8206 or 467-8207		
		FCC/Ortho South	384-7833	3D Lab	384-8095
		Densitometry	354-8301	MRI	356-2236
		Mammography	356-1245	Ultrasound (Stephanie Ellingson)	356-7637
		Cardiac Catheterization	356-2722	Nuclear Medicine (Tony Knight)	356-2954
				Radiation Therapy (Jared Stiles)	356-8286

### **Electronic Communication**

University policy specifies that students are responsible for all official correspondences sent to their standard University of Iowa e-mail address (@uiowa.edu). Students should check their account frequently. (Operations Manual, III.II.15.1.k.11.)

1. Appropriate times to check E-MAIL messages include before 8:00 a.m., during the lunch hour, or after 4:30 p.m.
2. Messages about changes in schedules, etc., from program faculty will be sent via E-mail.
3. E-mail Caution: Health Care Information Systems states that confidentiality of information messages cannot be guaranteed and such messages can be considered evidence in legal proceedings. Do not retain electronic copies of e-mail beyond 30-days.

## SECTION II – TECHNICAL STANDARDS, REGISTRATION, ADVISING & ACADEMIC CALENDAR

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### Technical Standards

You will be asked if you are capable of performing the duties and responsibilities listed in the technical standards on your application. The University of Iowa prohibits discrimination in employment and in educational programs and activities on the basis of race, national origin, color, creed, religion, sex, age, disability, veteran status, sexual orientation, gender identity, or associational preference. The University also confirms its commitment to providing equal opportunities and equal access to University facilities. For additional information on nondiscrimination policies, contact the Coordinator of Title IX, Section 504, and the ADA in the office of Equal Opportunity and Diversity, (319) 335-0705 (voice) and (319) 335-0697 (text), The University of Iowa, 202 Jessup Hall, Iowa City, Iowa 52242-1316.

### Academic Advising/Career Guidance/Counseling Services/Tutoring Services

The Program Director and Radiation Sciences Educators will serve as the clinical advisor for RT Education. The Radiation Sciences (RS) Advisors will serve as the academic advisors for the RS degree completion. Career Guidance is provided by the Pomerantz Career Center. (<http://www.careers.uiowa.edu/>) Counseling Services are provided by the University Counseling Service (<http://www.uiowa.edu/ucs/>). Help Labs & Tutoring Services (<https://uc.uiowa.edu/student-success>)

### Registration-University of Iowa

Student must register with the University of Iowa each semester to attend didactic and clinical courses.

1. If the student fails to register by the registration deadline date, he/she:
  - is subject to late fees charged by the University of Iowa, and
  - is not allowed to attend didactic or clinical assignments until student is registered.
  - will be subject to the didactic and personal time procedures for the time missed until student is registered.
2. If the student attends clinical assignments during a semester, he/she is not registered for:
  - he/she assumes all liability for incidents that occur, since registration provides students with the State of Iowa Liability Insurance, as described in the liability insurance policy, and
  - will not be given credit for attending the clinical assignment and will be subject to the Clinical Attendance Policy.

### Radiologic Technology Education Completion & ARRT Examination Requirements

- The student must satisfactorily complete all didactic, laboratory, and clinical work in accordance with the grading policies and obtain the BS in Radiation Sciences to be eligible to sit for the American Registry of Radiologic Technologists (ARRT) Certification Examination.
- All fees and financial obligations to the University of Iowa and University of Iowa Hospitals and Clinics must be satisfied prior to the Program Director verifying the students ARRT program completion verification form. This includes library, books, picture ID badge, radiation monitoring badges, lead markers, and images from the educational file.
- Student must be registered by the ARRT in Radiography prior to applying for the certification exam in CT, CVI (CI, VI), or MRI.

### Tuition & Fees

Students will be billed tuition from the University of Iowa.

<https://medicine.uiowa.edu/radsci/student-resources/tuition-fees-on-campus>

<http://www.registrar.uiowa.edu/TuitionandFees/TuitionandFeesInformation/tabid/95/Default.aspx>

### Miscellaneous Fees

Program Acceptance Fee/Tuition Deposit/Clinical Assessment Fee: \$535.00 (\$300 credit back for Fall Semester)

Textbooks: \$500 (approximate) for textbooks before entering the Program

Clinical Uniforms: \$200 (approximate) for uniforms (3 sets) and shoes before entering the Program

ARRT Certification Examination: \$200 application fee (senior spring)

### Tuition Refunds

UI tuition and fee refunds will be according to the published UI schedule of courses, significant deadline dates

<http://www.registrar.uiowa.edu/Calendars/AcademicDeadlines/tabid/67/Default.aspx>

# BSRS Academic Calendar

2018-2019

August 2018						
Su	M	Tu	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September 2018						
Su	M	Tu	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October 2018						
Su	M	Tu	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November 2018						
Su	M	Tu	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December 2018						
Su	M	Tu	W	Th	F	S
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January 2019						
Su	M	Tu	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February 2019						
Su	M	Tu	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

March 2019						
Su	M	Tu	W	Th	F	S
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April 2019						
Su	M	Tu	W	Th	F	S
	1	2	3	4	5	6
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21	22	23	24	25	26	27
28	29	30				

May 2019						
Su	M	Tu	W	Th	F	S
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June 2019						
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23	24	25	26	27	28	29
30						

July 2019						
Su	M	Tu	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- Clinical Requirements Due
- Clinic Only
- Program Breaks  
No class or clinic
- First day of classes
- Holiday



# BSRS Academic Calendar

2019-2020

August 2019						
Su	M	Tu	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2019						
Su	M	Tu	W	Th	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 2019						
Su	M	Tu	W	Th	F	S
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2019						
Su	M	Tu	W	Th	F	S
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17	18	19	20	21	22	23
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December 2019						
Su	M	Tu	W	Th	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 2020						
Su	M	Tu	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 2020						
Su	M	Tu	W	Th	F	S
						1
2	3	4	5	6	7	8
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16	17	18	19	20	21	22
23	24	25	26	27	28	29

March 2020						
Su	M	Tu	W	Th	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2020						
Su	M	Tu	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2020						
Su	M	Tu	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June 2020						
Su	M	Tu	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July 2020						
Su	M	Tu	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

- Clinical Requirements Due
- Clinic Only
- Program Breaks  
No class or clinic
- First day of classes
- Holiday

## SECTION III – ACADEMIC & RELATED POLICIES

### Course Descriptions

Course#	CourseName/Description:	SH
RSRT:2110	<b>Radiographic Procedures &amp; Analysis I:</b> This course introduces radiographic positioning principles and provides the technical, positioning, & analysis information needed to perform and evaluate images of the chest and abdomen on adult and pediatric patients. Emphasis on quality patient care and adaptation to a variety of client conditions will be explored. Labs are included.	4
RSP:2120	<b>Patient Care for the Radiation Sciences:</b> Foundation for providing care to clients during radiographic examinations. Major topics include taking medical histories, basic life support, medical emergencies, vital sign assessment, body mechanics, infection control, sterile techniques, intravenous equipment, and administration. Advance concepts in client assessment and monitoring to include evaluation and monitoring of clients in pain and of clients in acute and chronic states of illness. Communication techniques and role-playing are included.	3
RSRT:2120	<b>RT Clinical Internship I:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	1
RSRT:2215	<b>Radiographic Procedures &amp; Analysis II:</b> This course provides the technical, positioning, & analysis information needed to perform and evaluate images of the upper & lower extremity, shoulder, and gastrointestinal and biliary radiographic procedures. Emphasis on quality patient care and adaptation to a variety of client conditions will be explored. Labs are included.	7
RSRT:2225	<b>RT Clinical Internship II:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	4
RSRT:2325	<b>RT Clinical Internship III:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	3
RSRT:3115	<b>Radiographic Procedures &amp; Analysis III:</b> This course provides the technical, positioning, & analysis information needed to perform and evaluate images of the hip, pelvis, spine, thorax, skull, and GU system radiographic procedures. Emphasis on quality patient care and adaptation to a variety of client conditions will be explored. Labs are included.	4
RSRT:3140	<b>Radiographic &amp; Digital Imaging:</b> Radiographic & digital imaging provides the student with the knowledge of factors that govern and influence the production of the radiographic image. It includes discussions on x-ray and scatter production, patient interactions, the function of kVp, mAs, and distance as it applies to contrast & spatial resolution. Practical issues concerning automatic exposure control and grid usage are also explored. Labs are included where students practice and apply the theoretical principles associated with the production of quality images.	5
RSRT:3125	<b>RT Clinical Internship IV:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	4
RSRT:3230	<b>Radiographic Physics &amp; Imaging Equipment:</b> Characteristics of atomic structure, electricity, and x-ray machines; properties of x-rays and their interaction with matter; measurement of radiation exposure. Construction principles and theories of operation of specialized imaging equipment, including fundamentals of acquisition for the following: Imaging Intensification, Geometric Tomography, Mobile/Portable Radiography, and Magnification Principles.	4

RSRT:3215	<b>Fluoroscopic Procedures:</b> This course provides the technical, positioning, & analysis information needed to perform and evaluate images performed in advanced and fluoroscopic radiographic procedures. Emphasis on quality patient care and adaptation to a variety of client conditions will be explored.	1
RSRT:3220	<b>Emotional Intelligence for the Healthcare Professional:</b> Introduction to emotional intelligence and its applications to the health care setting.	2
RSRT:3225	<b>RT Clinical Internship V:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	3
RSRT:3325	<b>RT Clinical Internship VI:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	4
RSRT:4125	<b>RT Clinical Internship VII:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	1
RSRT:4225	<b>RT Clinical Internship VIII:</b> Students will rotate through the different radiography related areas of the UI Hospitals & Clinics. During rotations, the student will assist with, practice, and test out on radiographic examinations learned in the didactic setting. Throughout the clinical internship the student builds skills for the care and management of patients. Performance assessments are conducted and guideline objectives are completed for each rotation. Performance expectations progressively become higher as student gains experience and skills.	1
RSMR:4110	<b>Fundamentals for the MRI Technologist:</b> This course is designed to provide knowledge relating to the care-giving skills specific to patients undergoing MRI examinations, including techniques in effectively communicating for safety and comfort, maintaining patient and personnel safety, and patient preparation, monitoring, and venipuncture. The technologist's role in a wide variety of MRI examinations and patient conditions will be discussed.	3
RSMR:4120	<b>MRI Procedures I:</b> This course will provide the student with imaging techniques related to the CNS and the musculoskeletal systems. Specific clinical applications, coils that are available and their use, considerations in the imaging parameters, specific choices in the protocols and positioning criteria will be included. Anatomical structures and the plane that best demonstrates anatomy will be discussed as well as signal characteristics of normal and abnormal structures.	4
RSMR:4130	<b>MRI Procedures II:</b> MRI techniques related to the neck, thorax, breast, abdomen and pelvis will be provided. Specific clinical applications, coils that are available and their use, considerations in the imaging parameters, specific choices in the protocols and positioning criteria will be included.	3
RSMR:4140	<b>MRI Acquisition &amp; Principles I:</b> Course will provide information on the physics and hardware used in obtaining a magnetic resonance signal, including magnetism, NMR signal production, tissue characteristics, spatial localization, pulse sequencing, imaging parameters and options, and special applications. The student will explore the skills useful in maximizing MR image quality.	3
RSMR:4150	<b>MRI Acquisition &amp; Principles II:</b> Advanced MRI techniques including MR angiography, and further investigation of fast image acquisition sequences, as well as an overview of MR magnets, installation, operation, and facility design, and computers and digital image acquisition as they apply to MR will be discussed. Quality assurance procedures will also be outlined.	3
RSMR:4160	<b>MRI Clinical Internship I:</b> The MRI clinical internship is scheduled at The UI Hospitals and Clinics, from 8 to 4:30 and 3 to 11:30 p.m. Interns will rotate through each MRI department scanning rooms. Competency and objective based education with required clinical performance evaluations. Clinical preceptor will facilitate schedules, rotations, learning objectives, evaluations, and competencies. Experience facilitated by MRI technologists, radiologists, residents, and preceptor. Participation in routine and advanced MRI scans is required. Performance expectations progressively become higher as student gains experience and skills.	2, 3, 6

RSMR:4170	<b>MRI Clinical Internship II:</b> The MRI clinical internship is scheduled at The UI Hospitals and Clinics, from 8 to 4:30 and 3 to 11:30 p.m. Interns will rotate through each MRI department scanning rooms. Competency and objective based education with required clinical performance evaluations. Clinical preceptor will facilitate schedules, rotations, learning objectives, evaluations, and competencies. Experience facilitated by MRI technologists, radiologists, residents, and preceptor. Participation in routine and advanced MRI scans is required. Performance expectations progressively become higher as student gains experience and skills.	3, 6
RSMR:4175	<b>MRI Clinical Internship III:</b> The MRI clinical internship is scheduled at The UI Hospitals and Clinics, from 8 to 4:30 and 3 to 11:30 p.m. Interns will rotate through each MRI department scanning rooms. Competency and objective based education with required clinical performance evaluations. Clinical preceptor will facilitate schedules, rotations, learning objectives, evaluations, and competencies. Experience facilitated by MRI technologists, radiologists, residents, and preceptor. Participation in routine and advanced MRI scans is required. Performance expectations progressively become higher as student gains experience and skills.	4
RSCI:4110	<b>Vascular Anatomy:</b> Normal arterial and venous anatomy of all parts of the circulatory system will be discussed and illustrated through angiographic, MRI, and CT images. Common variants will also be presented.	3
RSCI:4120	<b>CVI Principles:</b> Course covers the imaging and accessory equipment for vascular interventional and cardiac interventional procedures and imaging equipment quality control. The fundamental principles of vascular and cardiac procedures, including patient preparation and care, radiation safety, contrast medium, pharmacology, and sedation will be presented.	4
RSCI:4130	<b>Electrocardiogram &amp; Hemodynamics:</b> Course covers ECG analysis, hemodynamic principles and waveform analysis, cardiac output, vascular resistance, and calculation of stenotic valves.	3
RSCI:4140	<b>CVI Peripheral Procedures &amp; Pathology:</b> Angiographic and interventional procedures of the abdomen, thorax, and upper and lower extremities and the associated pathologies will be presented.	3
RSCI:4150	<b>CVI Neuro &amp; Nonvascular Procedures &amp; Pathology:</b> Course explores angiographic and interventional procedures of the head and neck and the associated pathologies. Non-vascular interventions will also be included.	3
RSCI:4160	<b>CVI Cardiac Procedures &amp; Pathology:</b> Course presents the cardiac diagnostic and interventional procedures and the associated pathologies. These procedures will include adult, pediatric, and electrophysiology procedures.	4
RSCI:4190	<b>CVI Clinical Internship:</b> The CVI internship will provide 192 hours of clinical experience over a 12 week period. This is an introductory into both the VI and CI labs where the student will learn the basic set up, equipment, and procedures performed in these labs. This rotation will prepare them to spend more concentrated time in each area for future internships.	2
RSCI:4180	<b>VI Internship:</b> The VI clinical internship will provide scheduled Vascular-Interventional clinical time at UI Hospitals and Clinics; Internship hours are generally 7:30 a.m. to 4:30 p.m. The labs specialize in peripheral, neuro and non-vascular procedures. Competency and objective based education with required throughout the semester as well as schedule clinical performance evaluations, providing constructive feedback from VI staff and clinical coordinator. Clinical coordinator will facilitate your schedule, rotations, learning objectives, evaluations, and competencies.	4, 6
RSCI:4170	<b>CI Clinical Internship:</b> The CI clinical internship will provide scheduled Cardiac-Interventional clinical time at UI Hospitals and Clinics and Mercy Hospital Iowa City; Internship hours are generally 7:30 a.m. to 4:30 p.m, the time will vary depending up rotation. The rotation will include adult cardiac, electrophysiology, and pediatric catheterization rotations. Competency and objective based education with required throughout the semester as well as schedule clinical performance evaluations, providing constructive feedback from CI staff and clinical coordinator. Clinical coordinator will facilitate your schedule, rotations, learning objectives, evaluations, and competencies.	4, 6
RSCT:4100	<b>Sectional Anatomy for the Imaging Sciences:</b> This course is designed to provide the student with anatomy as identifiable in sections. The units will include instruction of transverse, sagittal and coronal views of the central nervous system, thorax, abdomen, pelvis and musculoskeletal system. Anatomical structures will be correlated with CT and MRI images.	3
RSCT:4110	<b>CT &amp; MRI Pathology:</b> This course focuses on common pathological conditions found in CT and MRI images, including protocol appearance variations. The units of CNS, musculoskeletal, neck, thorax, and abdomen/pelvic pathology are covered. Learning will be enhanced by textbook readings, in class discussions and special projects including: Case studies and PowerPoint Presentations.	3

RSCT:4120	<b>CT Procedures I:</b> Information on CT procedures of the head, neck, thorax, mediastinum, abdomen, and pelvis, to include positioning techniques, patient preparation, monitoring and care, indications and contraindications for the procedures, and contrast media usage will be presented. Basic protocol information, along with adjustments to tailor the procedures for the patient's indications, and brief units on patient care topics relevant to CT patients and procedures and on CT parameters and equipment will be included.	3
RSCT:4125	<b>CT Procedures II:</b> Imaging information in musculoskeletal exams, 3D reconstruction, CTAs, cardiac to include gating, biopsies, drains, post-myelography, Radiation Therapy planning and 4D imaging, CT arthrography, PET/CT, SPECT/CT, and virtual colonoscopy will be presented. Procedure indications and contraindications, patient and room preparation, positioning techniques, contrast media usage, and scan parameters for each will be included, along with basic protocol information and how to tailor procedures to the patient's indications.	3
RSCT:4130	<b>CT Physical Principles &amp; QC:</b> Content is designed to impart an understanding of the physical principles and instrumentation involved in CT. The historical development and evolution of CT is reviewed. Physics topics that are covered include characteristics of x-radiation, beam attenuation, linear attenuation coefficients, tissue characteristics, Hounsfield numbers application, data acquisition, image manipulation techniques, tube configuration, collimation design and function, detector type and characteristics, image quality factors, and functions of CT computer and array processor. CT image processing and display are examined from data acquisition through post-processing and archiving. Radiation protection practices and quality control will also be explored.	4
RSCT:4210	<b>CT Clinical Internship I:</b> The CT clinical internship is scheduled at The UI Hospitals and Clinics, from 8 to 4:30 and 3 to 11:30 p.m.. Interns will rotate through all CT scanners, 3D lab, & Radiation Therapy department. Competency and objective based education with required clinical performance evaluations. Clinical coordinator will facilitate your schedule, rotations, learning objectives, evaluations, and competencies. Experience facilitated by CT technologists, radiologists, residents, and coordinator. Participation in routine and advanced CT scans is required. Performance expectations progressively become higher as student gains experience and skills.	1, 6
RSCT:4115	<b>CT Clinical Internship II:</b> The CT clinical internship is scheduled at The UI Hospitals and Clinics, from 8 to 4:30 and 3 to 11:30 p.m.. Interns will rotate through all CT scanners, 3D lab, & Radiation Therapy department. Competency and objective based education with required clinical performance evaluations. Clinical coordinator will facilitate your schedule, rotations, learning objectives, evaluations, and competencies. Experience facilitated by CT technologists, radiologists, residents, and coordinator. Participation in routine and advanced CT scans is required. Performance expectations progressively become higher as student gains experience and skills.	3
RSCT:4215	<b>CT Clinical Internship III:</b> The CT clinical internship is scheduled at The UI Hospitals and Clinics. Interns will rotate through all CT scanners, 3D lab, & Radiation Therapy department. Competency and objective based education with required clinical performance evaluations. Clinical coordinator will facilitate your schedule, rotations, learning objectives, evaluations, and competencies. Experience facilitated by CT technologists, radiologists, residents, and coordinator. Participation in routine and advanced CT scans is required. Performance expectations progressively become higher as student gains experience and skills.	3

**Schedule - Radiologic Technology Tracks****All Tracks:**

<b>SECOND YEAR - SOPHOMORE</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:2110 Radiographic Procedures & Analysis I	4	RSP:3210 Medical Ethics & Law	2
RSRT:2120 RT Clinical Internship I	1	RSRT:2230 Radiographic Procedures II	3
RSP:2110 Pathology for Radiation Sciences	2	RSRT:2240 Radiographic Analysis II	3
RSP:2120 Patient Care for Radiation Sciences	3	RSRT:2250 Radiographic Fluoroscopic Procedures	2
RSP:3130 Radiation Safety & Radiobiology	2	RSRT:2225 RT Clinical Internship II	5
<b>Subtotal</b>	<b>12</b>	<b>Subtotal</b>	<b>12</b>
<b>3<sup>rd</sup> Semester Summer</b>			
RSRT:2325 RT Clinical Internship III	3		
RSCT:4100 Sect Anatomy for Imaging Sci (online)	3		
<b>Subtotal</b>	<b>6</b>	<b>Total Sophomore:</b>	<b>30</b>

**CT:**

<b>THIRD YEAR – JUNIOR CT</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:3115 Radiographic Procedures & Analysis III	4	RSRT:3220 Emotional Intelligence for HC Professionals	1
RSRT:3125 RT Clinical Internship IV	4	RSRT:3215 Radiographic Procedures IV	1
RSRT:3140 Radiographic & Digital Imaging	5	RSRT:3225 RT Clinical Internship V	3
		RSRT:3230 Radiographic Physics & Imaging Equip	4
		RSCI:4130 ECG & Hemodynamics (online)	3
<b>Subtotal</b>	<b>13</b>	<b>Subtotal</b>	<b>12</b>
<b>3<sup>rd</sup> Semester Summer</b>			
RSRT:3325 RT Clinical Internship VI	2		
RSCI:4110 Vascular Anatomy (online)	3		
RSCT:4105 CT Clinical Internship I	1		
<b>Subtotal</b>	<b>6</b>	<b>Total Junior:</b>	<b>31</b>
<b>FOURTH YEAR – SENIOR CT</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:4125 RT Clinical Internship VII	1	RSRT:4225 RT Clinical Internship VIII	1
RSCT:4115 CT Clinical Internship II	3	RSCT:4110 CT / MRI Pathology (online)	3
RSCT:4120 CT Procedures I (online)	3	RSCT:4125 CT Procedures II (online)	3
RSCT:4130 CT Physical Principles & QC (online)	4	RSCT:4215 CT Clinical Internship III	3
RSP:4110 Research Methodologies for Rad Sci	3	RSP:3220 Rad Sci QM & Healthcare Admin (online)	2
<b>Subtotal</b>	<b>14</b>	<b>Subtotal</b>	<b>12</b>
		<b>Total Senior</b>	<b>26</b>
		<b>TOTAL RT/CT</b>	<b>88</b>

**MRI and CVI on page 2.**

**MRI:**

<b>THIRD YEAR – JUNIOR MRI</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:3115 Radiographic Procedures & Analysis III	4	RSRT:3220 Emotional Intelligence for HC Professionals	1
RSRT:3125 RT Clinical Internship IV	4	RSRT:3215 Radiographic Procedures IV	1
RSRT:3140 Radiographic & Digital Imaging	5	RSRT:3225 RT Clinical Internship V	3
		RSRT:3230 Radiographic Physics & Imaging Equip	4
		RSCT:4110 CT / MRI Pathology (online)	3
		RSMR:4110 Fundamentals for the MRI Tech (online)	3
<b>Subtotal</b>	<b>13</b>	<b>Subtotal</b>	<b>15</b>
<b>3<sup>rd</sup> Semester Summer</b>			
RSRT:3325 RT Clinical Internship VI	2		
RSCI:4110 Vascular Anatomy (online)	3		
RSMR:4160 MRI Clinical Internship I	2		
<b>Subtotal</b>	<b>7</b>	<b>Total Junior:</b>	<b>35</b>
<b>FOURTH YEAR – SENIOR MRI</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:4125 RT Clinical Internship VII	1	RSRT:4225 RT Clinical Internship VIII	1
RSP:4110 Research Methodologies for Rad Sci	3	RSP:3220 Rad Sci QM & Healthcare Admin (online)	2
RSMR:4120 MRI Procedures I (online)	4	RSMR:4130 MRI Procedures II (online)	3
RSMR:4140 MRI Acquisition & Principles I (online)	3	RSMR:4150 MRI Acquisition & Principles II (online)	3
RSMR:4170 MRI Clinical Internship II	3	RSMR:4175 MRI Clinical Internship III	4
<b>Subtotal</b>	<b>14</b>	<b>Subtotal</b>	<b>13</b>
		<b>Total Senior</b>	<b>27</b>
		<b>TOTAL RT/MRI</b>	<b>93</b>

**CVI:**

<b>THIRD YEAR – JUNIOR CVI</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:3115 Radiographic Procedures & Analysis III	4	RSRT:3220 Emotional Intelligence for HC Professionals	1
RSRT:3125 RT Clinical Internship IV	4	RSRT:3215 Radiographic Procedures IV	1
RSRT:3140 Radiographic & Digital Imaging	5	RSRT:3230 Radiographic Physics & Imaging Equip	4
		RSRT:3225 RT Clinical Internship V	3
		RSCI:4110 Vascular Anatomy (online)	3
<b>Subtotal</b>	<b>13</b>	<b>Subtotal</b>	<b>12</b>
<b>3<sup>rd</sup> Semester Summer</b>			
RSRT:3325 RT Clinical Internship VI	2		
RSCI:4120 CVI Principles (online)	4		
RSCI:4190 CVI Clinical Internship	2		
<b>Subtotal</b>	<b>8</b>	<b>Total Junior</b>	<b>33</b>
<b>FOURTH YEAR – SENIOR CVI</b>			
<b>1<sup>st</sup> Semester Fall</b>	<b>sh</b>	<b>2<sup>nd</sup> Semester Spring</b>	<b>sh</b>
RSRT:4125 RT Clinical Internship VII	1	RSRT:4225 RT Clinical Internship VIII	1
RSP:4110 Research Methodologies for Rad Sci	3	RSCI:4130 ECG & Hemodynamics (online)	3
RSCI:4140 CVI Peripheral Procedures & Path (online)	3	RSCI:4160 CVI Cardiac Procedures & Path (online)	4
RSCI:4150 Neuro & NonVascular Proc & Path (online)	3	RSCI:4170 CI Clinical Internship	4
RSCI:4180 VI Clinical Internship	4	RSP:3220 Rad Sci QM & Healthcare Admin (online)	2
<b>Subtotal</b>	<b>14</b>	<b>Subtotal</b>	<b>14</b>
		<b>Total Senior</b>	<b>28</b>
		<b>TOTAL RT/CVI</b>	<b>92</b>

## SECTION V – CLINICAL POLICIES

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### Mandatory Compliance Training Courses

The following courses are for noncredit and have no fee. They are self-directed and administered, so can be accessed from any computer with Internet access. Instructions are given at orientation. Each of the training modules in the course must be viewed and a quiz completed and passed with at least an 80% to be in compliance. Some courses must be completed annually. Proof of compliance will be required.

#### **Hospital Required Courses UPON ADMIT**

- H02084 Take Five: Best Practices During a Pandemic
- H02076 Personal Protective Equipment and Isolation Refresher for COVID-19
- H00373 Cultural Diversity and Limited English Proficiency Plan
- H01156 HIPAA Privacy and Security (Data Privacy)
- H00447 HIPAA Training
- H00403 UI Health Care Online Orientation
- H00448 Patient and Staff Rights and Responsibilities
- H02037 Safety and Infection Control Training (Initial)
- H00446 Domestic Violence
- [DHS Certificate](#): Mandatory Reporter: Child Abuse Training (*every 3 years*)
- [DHS Certificate](#): Mandatory Reporter: Dependent Adult Abuse Training (*every 3 years*)

#### **Radiation Sciences Specific Courses UPON ADMIT:**

- H00189 Medical Emergency Response
- H02006 Code Stroke Unlicensed: Medical Emergency Response

*DMS and RT only:* H01731 University of Iowa Stead Family Children's Hospital Online Orientation

*Therapy only:* H00279 MRI Safety Video for Rad Onc

*RT/MRI only:* H01672 MRI Safety Training for MRI Staff

#### **Required Courses for ANNUAL UPDATES**

- H01156 HIPAA Privacy and Security (Data Privacy)
- H02038 Safety and Infection Control Training (Renewal)
- H00441 Fraud, Waste, and Abuse
- H00189 Medical Emergency Response
- H02006 Code Stroke Unlicensed: Medical Emergency Response

*Therapy only:* H00279 MRI Safety Video for Rad Onc

*RT/MRI only:* H01672 MRI Safety Training for MRI Staff

### CPR Certification

All radiation science students are required to have current certification in cardiopulmonary resuscitation (CPR) throughout the Program. Students must submit proof of having completed the American Heart Association's Healthcare Provider Course. Recertification is required every 2 years and must be completed by any student whose certification expires while enrolled in the Program. Students who do not hold current CPR certification will not be allowed to attend any clinical affiliation until certification is obtained. It is the student's responsibility to ensure that current CPR certification is maintained. Student is responsible for all costs related to obtaining this certification.



**LeadMarkers**

1. Each student will be issued lead markers to be used when imaging patients. Markers are personalized with numbers and letters to identify student.
2. If the student loses the markers or is found in clinical setting without markers, they will be required to purchase new markers or leave to retrieve them. Markers can be purchased from Lorie Gillitzer (I.O.U.s are allowed). The replacement cost is \$1.50 for each R or L and arrow, \$1.00 for small numbers and letters, and \$5.00 for the SUPINE and XTABLE markers and \$4.00 for the PORT.
3. Another student or staff's lead markers may not be used by a student who has lost the markers.

**Direct&IndirectClinicalSupervision**

The Joint Review Committee on Education in Radiologic Technology uses the following definitions:

**Direct Supervision of Students:** The parameters of direct supervision are:

1. A qualified radiographer reviews the request for examination in relation to the student's achievement;
2. A qualified radiographer evaluates the conditions of the patient in relation to the student's knowledge;
3. A qualified radiographer is present during the conduct of the examination; and
4. A qualified radiographer reviews and approves the radiographs prior to release of the patient.

All students must be under direct supervision of a registered radiographer when performing examinations on patients with communicable diseases. Universal precautions will be practiced on all patients.

**Indirect Supervision of Students:** Indirect supervision is defined as that supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement. A qualified radiographer will review and approve the radiographs prior to release of the patient. Immediately available is interpreted as the presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use.

Students may only operate under INDIRECT SUPERVISION when they have passed the clinical competency test in that examination. This rule pertains to all examinations, including portable and surgical. If you have not passed the clinical competency test, the rules of DIRECT SUPERVISION apply. There are NO exceptions to this rule.

**Repeat Examinations:** Repeat radiographic examinations are performed while the registered radiographer is present and with the student, regardless of a student's competency level. If a repeat examination is necessary, the student shall have a registered radiographer check the position and technique before the exposure is made, regardless whether you have passed the competency or not.

**SurgicalRotationSupervision:**

1. No student may be on the OR floor without an RTR on the floor. The RTR must be aware the student is on the floor and be responsible for his/her supervision.
2. Students under direct supervision (have not comped) must be with an RTR at all times.
3. When performing a C-arm under indirect supervision, an RTR must be physically present and adjacent to the location where a procedure is to be performed and be available immediately upon request. The RTR supervising the student may not be involved in another procedure.
4. A student may only perform an OR portable under indirect supervision if they have comped on the requested exam. A RTR supervising must be physically present and adjacent to the location where the procedure is being performed and be immediately available for assistance if needed and to review the images upon completion. The RTR supervising the student may not be involved in another procedure.
5. A non-comped junior or senior may not be in the OR room with a comped student if a RTR is not present.

**Clinical Schedule/Obligations**

Students are assigned to didactic and clinical rotations for a maximum of 8 hours per day and 40 hours per week.

**RadiologicTechnology**

1. Clinical day hours are from 8 a.m. to 4:30 p.m. with a half-hour lunch, unless otherwise indicated on rotation objectives.
2. Clinical rotations are held at the following locations. Students are to provide their own transportation.
  - a. University of Iowa Hospitals & Clinics: 200 Hawkins De., Iowa City, IA 52242
  - b. UIHealthcare Scott Blvd: 3640 Middlebury Road, Iowa City, IA 52245
  - c. UI Sports Medicine Clinic: 2701 Prairie Meadow Dr., Iowa City, IA 52242
3. Each student is assigned 10 weekend days. Weekend day hours are 8 a.m. to 4:30 p.m. with a half-hour lunch.

- a. The student will be scheduled for the weekend day by the Clinical Coordinator, but may trade days with a classmate if the Clinical Coordinator is notified in advance of the trade.
  - b. When a student is assigned to a weekend day, she/he will have a day off of clinic the following week.
4. The student is assigned FLEX and 2<sup>nd</sup> shift rotations. These rotations hours are 4:00 pm – 12:30 am.

#### **Cardiovascular Interventional(CVI)**

1. Clinical hours vary depending on the clinical rotation as indicated below.
  - a. UIHC Interventional: 7:30 – 4
  - b. UIHC Cardiac Cath: 7:30 – 4
2. All areas have a half-hour lunch.

#### **Computed Tomography(CT)**

1. Clinical day hours are from 8 a.m. to 4:30 p.m. with a half-hour lunch. Please follow master CT clinical internship schedule.
2. The student will be assigned 2-4 weeks of evening rotation. Evening rotations are 3:00 p.m. to 11:30 p.m. with a half-hour break for dinner.

#### **Magnetic Resonance Imaging(MRI)**

1. Clinical day hours are from 8 a.m. to 4:30 p.m. with a half-hour lunch. Please follow master MRI clinical internship schedule.
2. The student will be assigned 4-6 weeks of evening rotation. Evening rotation hours are 12:30 pm to 9:00 pm with a half-hour break for dinner.

#### **Breast Imaging (BI)**

3. Clinical day hours are from 8 a.m. to 4:30 p.m. with a half-hour lunch. Please follow master BI clinical internship schedule.

#### **Medical Information Dispersement**

Student radiographers are not qualified to disperse medical information in any form during the course of an examination. Failure to comply will result in disciplinary action. The following guidelines will not be exceeded for any given exam:

- A. Explain to the patients, prior to the exam, the radiographs that you will be taking and what is required of them.
- B. Explain to the patients, after the exam, that you have completed the needed radiographs and that they are free to go. If they request information about the diagnosis, explain that you do not interpret the radiographs, but that the radiologist will be doing so and informing their physician about the results. At no time will any pathological processes or interpretation be discussed with the patient.

#### **Radiation Monitoring & Protection of Students**

1. The student must be 18 years of age or older to participate in clinical rotations that require working with sources of ionizing radiation.
2. The student will be issued two dosimetry badges; one to be worn on the collar near the thyroid gland outside of lead protection, and the other to be worn on the abdomen under lead protection. (See <https://ehs.research.uiowa.edu/dosimeter-guidelines-diagnostic-radiography-fluoroscopy>).
3. The student will be issued new badges each month. It is the student's responsibility to return the previous month monitoring devices to the Environmental Health and Safety Office (EHS) on Grand Avenue by the 10th of the following month.
4. If the student fails to return the badge three times within a 1 year period, the EHS Office bills the Radiology Department \$30 per incident for the lost or late badges. The Radiology Department policy requires the individual to reimburse the department for these charges.
5. Radiation Exposure Reports for the previous month are hung in the student lounge each month. A special number that is given to each student when the dosimetry badges are issued identifies the student on these reports.
6. The annual student's dosimetry badge reading will not exceed the following NRC protection recommendation:

7.

Annual Maximum Permissible Dose Limits		
mrem	rem	

5000	5	Whole Body Deep Dose Equivalent (Head, trunk, active blood-forming organs & reproductive organs)
50,000	50	Whole Body Shallow Dose Equivalent (Skin of the whole body) and Extremities (Hands, forearm, feet & ankles)
50000	50	Lens of Eye Dose Equivalent

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Notification and investigation levels for occupational exposure to radiation by the EHS Office are as follows:

**Action Level I:** EHS contacts individuals and their supervisor/department head if their cumulative quarterly exposure exceeds any of the action levels listed below.

**Action Level II:** In addition to “Level I” notifications, EHS requires the completion of a questionnaire for “Action Level II” exposures and may include a meeting with the staff member and their supervisor to discuss the individual’s exposure and potential actions.

ALARA I	ALARA Level II	
200 mrem/month	400 mrem/month	Whole Body Deep Dose Equivalent (Head, trunk, active blood-forming organs & reproductive organs)
2000 mrem/month	4000 mrem/month	Whole Body Shallow Dose Equivalent (Skin of the whole body) and Extremities (Hands, forearm, feet & ankles)
600 mrem/month	1200 mrem/month	Lens of Eye Dose Equivalent

8. The student will always wear an apron when applicable (fluoroscopic and portable exams).
9. The student will never hold or an imaging receptor a patient during an exposure..
10. The student will use the principles of time, distance, and shielding to protect themselves and during procedures.

### **Pregnancy**

1. The dose limit of a pregnant radiation worker remains at 5,000 mrem per year until she specifically declares her pregnancy in a written and signed statement directed to the University’s Environmental Health and Safety (EHS) Office. Such a declaration is completely voluntary and made at the mother’s choice.
2. Following the EHS Office’s receipt of a signed pregnancy declaration, the dose limit to the student’s embryo/fetus is limited to 500 mrem for the duration of her pregnancy. Upon the receipt of the signed pregnancy declaration, the EHS will monitor potential internal and/or external exposure to the embryo/fetus as appropriate.
3. A copy of the EHS Pregnancy Declaration Form is available on the Program website and at <https://ehs.research.uiowa.edu/pregnancy-declaration-and-prenatal-radiation-exposure-form>
4. For answers to questions concerning prenatal radiation exposure and risk, consult with The Iowa Department of Public Health (IDPH) regulatory guide entitled “Instruction Concerning Prenatal Radiation Exposure” can be accessed from the program website.
5. The student is allowed to participate in her regular scheduled rotations as long as good radiation safety techniques are practiced. Refer to the Sick/Personal Leave and Vacation, and Leave of Absence Policies as needed for time off due to appointments and maternity leave.
6. The student may withdraw the pregnancy declaration by providing a written statement declaring the withdrawal to the program director and EHS office.

### **Clinical Advising**

Students are assigned a Radiation Sciences Educator who monitors & advises students on aspects of clinical education. The educator will:

1. Monitor adherence to policies and procedures.
2. Monitor clinical staff appraisals.
3. Consult with student at mid and end of semester about clinical performance, & competency & objective progress.
4. Prepare clinical grade summation report at end of each semester.
5. Advise the student on clinical requirements per semester.
6. Advise the student of problem behaviors in clinic.
7. Be available to communicate any problems that are being experienced in the clinic & offer guidance.

## SECTION VI – ATTENDANCE POLICIES

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### **Didactic Attendance**

The instructor attendance and tardiness policies will be clearly stated on the course syllabus and will be reviewed on the first day of class. Students are required to observe the attendance policy announced for the course. If a complaint or issues arises concerning a student absence, RT Education will use the stated policy within the syllabus to adjudicate the problem.

### **Clinical Attendance**

Clinical attendance policies are outlined in Appendix A: Clinical Attendance. Please refer to this document for policies and procedures.

### **Banking Personal Time for Professional Development Activities**

1. Essay submissions & related presentation to radiography related seminars/journals.
  - a. 3 hours of personal time will be banked upon providing proof of non-disqualifying essay submission to Program Faculty. Student must complete the competition's entire obligation (i.e. present the essay at meeting if chosen) to obtain the 3 hours.
2. Poster board educational displays submission to radiography seminars/healthcare related activities.
  - a. 3 hours of personal time will be banked upon approval of non-disqualifying activity by Program Faculty. Maximum of 5 individuals can obtain personal time for working on one display.
3. Attending a state or national radiology society meeting (must show proof of attending the entire days sessions)

**Leave of Absence**

Extended or intermittent leave of absences from the Program will be granted for serious health conditions and family medical needs.

1. Students anticipating a leave of absence must submit an excuse from their health care provider that describes the following to the Program Director. If the leave of absence is due to a family member, the excuse must include all but “c” below.
  - a. The duration of the absence.
  - b. Whether illness will require full-time or intermittent absences.
  - c. Any clinical activities (i.e., patient care related, lifting) that the student is unable to perform because of condition and expected length of this restriction.
  - d. If condition is chronic: whether the student is presently incapacitated and the likely duration and frequency of episodes of incapacity.
2. This policy recognizes the following family relationships as qualifying under the leave: son or daughter, spouse, and parent.
3. Reasonable accommodations will be provided as determined by members of the Promotions Committee.

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## SECTION VII - CONDUCT POLICIES

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**Academic Misconduct**

Radiologic Technology Education has the authority to handle acts of academic misconduct, which are defined in Section IIA as:

“Any dishonest or fraudulent conduct during an academic exercise, such as cheating, plagiarism, or forgery, or misrepresentation regarding the circumstances of a student’s non-attendance, late assignment, or previous work or educational experience, or aiding or abetting another person to do the same. “Dishonest” conduct includes, but is not limited to, attempts by students to cheat or misrepresent, or aid or abet another person to do the same.”

The following regulations provide a procedure for dealing with students who are alleged to have committed an act of academic misconduct:

- **Cheating (including exams, homework, labs, etc.), Plagiarism, or Forgery**
  1. Instructor reduces the student’s overall course grade by one grade level.
  2. A written report of the violation is provided to the DEO.
  3. The violation report is placed in the involved student’s file and the student is placed on academic probation for the remainder of the program.
  4. The reports shall be destroyed when the student graduates.
  5. In cases of flagrant or a second offense, the DEO may impose disciplinary probation or dismissal from the program.

**Anti-harassment**

The University is committed to maintaining an environment that recognizes the inherent worth and dignity of every person, and that fosters tolerance, sensitivity, understanding, and mutual respect. This commitment requires that the highest value be placed on the use of reason and that harassment in the University community be renounced as repugnant and inimical to its goals. Harassment destroys the mutual trust which binds members of the community in their pursuit of truth. The Anti-harassment Policy addresses harassment based on any protected classification (race, creed, color, national origin, age, sex, disability, sexual orientation, or gender identity) as well as harassment based on other factors. To review the complete Anti-harassment Policy please see <http://www.uiowa.edu/~our/opmanual/ii/14.htm>

**Anti-retaliation:**

The University of Iowa encourages its faculty, staff, and students to make good faith disclosures of University-related misconduct. The commitment to improve the quality of the University through such disclosures is vital to the well-being of the entire campus community. Retaliation as a response to such disclosure will not be tolerated. Retaliation, whether actual or threatened, destroys a sense of community and trust that is central to a quality environment. To review the complete Anti-retaliation Policy, please see <http://www.uiowa.edu/~our/opmanual/ii/11.htm>

**Judicial Procedure for Disregard of Direct/Indirect Supervision Policies**

All direct/indirect supervision policy infractions included below will follow the Judicial Procedure for Alleged Violations of the Code of Student Life disciplinary sanctions listed above if the student is found in violation of the policy, with the 1<sup>st</sup> offense resulting in a disciplinary warning, 2<sup>nd</sup> offense resulting in disciplinary probation, and 3<sup>rd</sup> offense resulting in expulsion from the Program.

- Performing an exam without direct supervision if student has not passed the competency on the exam.
- Performing an exam without indirect supervision if student has passed the competency on the exam.
- Obtaining signatures or competencies on exams prior to passing the didactic section for the exams.
- Passing an exam and releasing the patient without having a technologist review the images.
- Performing an exam on a patient with a communicable disease without direct supervision.
- Repeating an exam without direct supervision.

### **Judicial Procedure for Disregard of Clinical Policies**

Minor misconduct to include dress code violations, unprofessional behavior, cell phone misuse, etc. will result in documentation for each infraction that will lower the student's overall semester performance appraisal grade as indicated below.

1<sup>st</sup> documentation = written warning

All subsequent documentations = 1 full grade level lower (A to B)

The Program Faculty may write these documentations. The Faculty writing the documentation will conduct a counseling session with the student and the session will be documented and placed in the student's permanent file until after graduation.

Serious infractions, as deemed by the Program Director, will be subject to the Judicial Procedure for Alleged Violations of the Code of Student Life Policy.

### **Radiology Department Misconduct (UIHC)**

The following are guidelines for reporting and documenting unprofessional, disruptive, abusive, or retaliatory behavior in the Radiology Department.

1. A Professional Conduct Committee has been established for the Department of Radiology and any report of disruptive behavior may be made directly to any member of the committee or to the Chair of the Department.
2. Document the incident by completing the Professional Conduct Violation Report within 72 hours, if possible, to a member of the Professional Conduct Committee or the Chair of the Department. Please retain a copy of the report.
3. The Chairman of the Professional Conduct Committee will be responsible for calling a meeting of the committee to investigate the report as necessary.
4. The Professional Conduct Committee will provide a written report with their recommendations to the Chair of the Department. The report will be reviewed by the Chair of the Department and appropriate action taken.
5. If any individual who has initiated a report believes they are subject to actual or threatened retaliatory behavior, the preceding process should be followed. **NORETALIATORY CONDUCT WILL BE TOLERATED.**

### **ARRT Standards of Ethics**

(Found at [https://www.arrt.org/docs/default-source/governing-documents/arrt-standards-of-ethics.pdf?sfvrsn=c79e02fc\\_14](https://www.arrt.org/docs/default-source/governing-documents/arrt-standards-of-ethics.pdf?sfvrsn=c79e02fc_14))

The standards of ethics serve as a guide by which registered technologists and candidates may evaluate their professional conduct as it relates to patients, healthcare consumers, employers, colleagues and other members of the healthcare team.

### **ARRT Certification Eligibility**

Every candidate for certification and every applicant for renewal of registration must, according to the governing documents, "be a person of good moral character and must not have engaged in conduct that is inconsistent with the ARRT Rules of Ethics," and they must "agree to comply with the ARRT Rules and Regulations and the ARRT Standards of Ethics."

One issue addressed by the Rules of Ethics is the conviction of a crime, including a felony, a gross misdemeanor or a misdemeanor, with the sole exception of speeding and parking violations. All alcohol and/or drug related violations must be reported. "Conviction" as used in this provision includes:

- a criminal proceeding where a finding or verdict of guilt is made or returned but the adjudication of guilt is either withheld or deferred,
- a proceeding in which the sentence is suspended or stayed,
- a criminal proceeding where the individual enters a plea of guilty or nolo contendere (no contest), or
- a proceeding resulting in a military court-martial.

ARRT investigates all potential violations in order to determine eligibility.

**Pre-application Review:** If a candidate is concerned about whether his or her conviction record will affect exam eligibility, there is a way to find out in advance. ARRT investigates all potential violations in order to determine eligibility, and such investigations can cause delays in processing exam applications. Candidates can avoid delay by requesting a pre-application review of the violation before or during training, rather than waiting until completing the educational program. ARRT will rule on the impact of the violation on eligibility for ARRT examination. Once eligibility is established, the candidate proceeds with application.

The pre-application review form is downloadable from the "Ethics" section of our [www.arrt.org](http://www.arrt.org) website, or you may request a copy by phoning ARRT at (651) 687-0048, ext. 544

Adopted by: The Joint Review Committee on Education in Radiologic Technology: January 1996; Revised 2014  
Standards can be located at: <http://www.jrcert.org/programs-faculty/jrcert-standards/>.

The Joint Review Committee on Education in Radiologic Technology is dedicated to excellence in education and to quality and safety of patient care through the accreditation of educational programs in radiation and imaging sciences. The Joint Review Committee on Education in Radiologic Technology (JRCERT) is recognized by the United States Department of Education to accredit educational programs in radiography and radiation therapy.

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