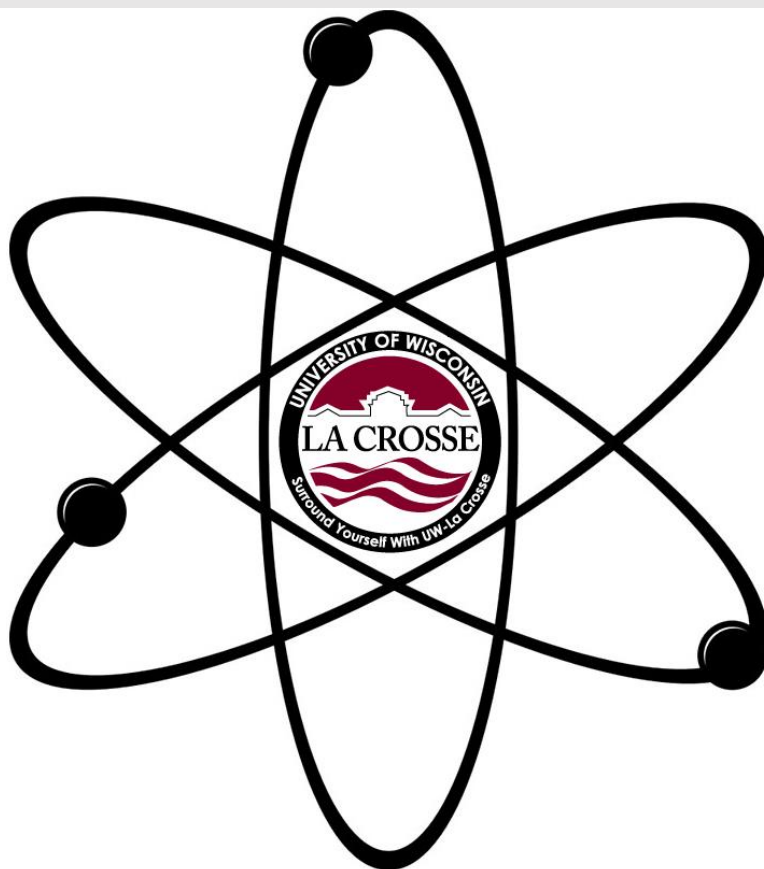


# ***UWL Radiation Therapy Program***

## **Student Handbook**



**Radiation Therapy Program**

**2022-2024**

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## Section A: Information Regarding Radiation Therapy

### A-1 Radiation Therapy: A Description of the Profession

According to the American Society of Radiologic Technology (ASRT) Practice Standards for Radiation Therapy:

“The practice of radiation therapy is performed by health care professionals responsible for the administration of high doses of ionizing radiation for the purpose of treating pathologies, primarily cancer. A radiation therapist acquires and analyzes data in preparation for patient treatment, uses various imaging technologies to localize the treatment area, participates in treatment planning and performs radiation therapy procedures as prescribed and supervised by a radiation oncologist.

Radiation therapists are the primary liaison between patients and other members of the radiation oncology team. They also provide a link to other health care providers, such as social workers and dietitians. Radiation therapists must remain sensitive to the needs of the patient through good communication, patient assessment, patient monitoring and patient care skills. Radiation therapy often involves daily treatments extending over several weeks using highly sophisticated equipment. It requires thorough initial planning as well as constant patient care and monitoring.”

### A-2 ARRT Code of Ethics for Radiation Therapists

The American Registry of Radiologic Technologists (ARRT) provides the framework for ethical clinical practice. The robust and comprehensive document may be found at the following link:

<https://www.rrt.org/pages/earn-rrt-credentials/initial-requirements/ethics/ethics-requirements>

### A-3 Scope of Practice and Essential Functions of a Radiation Therapist

According to the ASRT:

“The scope of practice of the medical imaging and radiation therapy professional includes:

- Administering medications enterally, parenterally, through new or existing vascular access or through other routes as prescribed by a licensed practitioner.
- Administering medications with an infusion pump or power injector as prescribed by a licensed practitioner.
- Applying principles of ALARA to minimize exposure to patient, self and others.
- Applying principles of patient safety during all aspects of patient care.
- Assisting in maintaining medical records, respecting confidentiality, and established policy.
- Corroborating a patient’s clinical history with procedure and ensuring information is documented and available for use by a licensed practitioner.
- Educating and monitoring students and other health care providers.
- Evaluating images for proper positioning and determining if additional images will improve the procedure or treatment outcome.
- Evaluating images for technical quality and ensuring proper identification is recorded.
- Identifying and responding to emergency situations.
- Identifying, calculating, compounding, preparing and/or administering medications as prescribed by a licensed practitioner.
- Performing ongoing quality assurance activities.
- Performing venipuncture as prescribed by a licensed practitioner.

- Postprocessing data.
- Preparing patients for procedures.
- Providing education.
- Providing optimal patient care.
- Receiving, relaying and documenting verbal, written and electronic orders in the patient's medical record.
- Selecting the appropriate protocol and optimizing technical factors while maximizing patient safety.
- Starting, maintaining and/or removing intravenous access as prescribed by a licensed practitioner.
- Verifying archival storage of data.
- Verifying informed consent for applicable procedures.

**RT only:**

- Constructing/preparing immobilization, beam directional and beam-modification devices.
- Delivering radiation therapy treatments as prescribed by a radiation oncologist.
- Detecting and reporting significant changes in patients' conditions and determining when to withhold treatment until the radiation oncologist is consulted.
- Monitoring doses to normal tissues within the irradiated volume to ensure tolerance levels are not exceeded.
- Participating in brachytherapy procedures.
- Performing simulation, localization, treatment planning procedures and dosimetric calculations as prescribed by a radiation oncologist.
- Using imaging technologies for the explicit purpose of simulation, treatment planning and treatment delivery as prescribed by a radiation oncologist.

## A-4 Education, Accreditation, Certification and Job Market

### Education

The major in radiation therapy provides students with an educational foundation in the sciences and humanities as well as clinical experience in a radiation therapy department. The curriculum requires a minimum of six semesters on campus in pre-professional and professional core courses prior to the senior clinical internship. The clinical internship begins in July of the senior year, extends for 13 months and is spent at an affiliated hospital internship site. Admission to the major is on a competitive basis. Upon acceptance, students may register for the professional core courses. Students who successfully meet program requirements will interview with the clinical sites in the summer or fall prior to their junior year and upon selection by one of the sites will be placed for the senior clinical internship. All requirements for general education and the major must be met prior to graduation. Education continues post-graduation by individual research, reading and recognized continuing education opportunities offered by employers and professional societies and is required for maintaining professional credentials.

### Accreditation

The University is accredited by the Higher Learning Commission, HLC. The program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182. The telephone number is (312)704-5300. See also [www.jrcert.org](http://www.jrcert.org)

### Certification

A national registry exam is offered by [American Registry of Radiologic Technologists](http://www.arrt.org). Students may apply to take the certification exam after meeting all requirements for graduation and schedule the computerized exam for a convenient location and time. According to the ARRT, a graduate has three opportunities to pass the examination, after which, they must return to school for additional training. Applicants and students are advised that "Codes of Ethics" are established by the ARRT, as mentioned previously. These are standards of minimally acceptable professional conduct for all certificated and registered radiation therapists and applicants. They are intended to promote the protection, safety and comfort of patients. Violation of the Code of Ethics carries sanctions, including, among others, not being allowed to sit for the exam or forfeiting certification. One issue addressed by the Code of Ethics is the conviction of a crime, including a felony or a misdemeanor with the exception of speeding and parking violations. All alcohol and/or drug related violations must be reported. Convictions must also be reported. All potential violations must be investigated by the ARRT in order to determine eligibility on a case-by-case basis. Individuals may file a pre-application with the ARRT to obtain a ruling on eligibility at any time prior to or after entry into an accredited educational program. The pre-application must be requested directly from the ARRT (telephone 651.687.0048). See also [www.arrt.org](http://www.arrt.org). Please contact the program director for pre-application guidance.

### Job Market

Radiation therapists may work in hospital departments or free-standing facilities. Options for diversification present in performing special procedures, dosimetry, management, and education. Therapists may also work in sales and technical support. The number of job openings varies with time and location. The graduate can enhance his/her success in securing a position by being open to relocation.

## Section B: Program Information

### B-1 University of Wisconsin System and UW-La Crosse Radiation Therapy Program Mission, Vision, and Goals

#### University of Wisconsin System Mission:

“The mission of the system is to develop human resources, to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses and to serve and stimulate society by developing in students heightened intellectual, cultural and humane sensitivities, scientific, professional and technological expertise and a sense of purpose. Inherent in this broad mission are methods of instruction, research, extended training and public service designed to educate people and improve the human condition. Basic to every purpose of the system is the search for truth.”

#### The Core Mission of the Comprehensive University Cluster

As institutions in the comprehensive university cluster, UW-Eau Claire, UW-Green Bay, UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Superior, and UW-Whitewater share the following core mission. Within the approved differentiation stated in their select mission statements, each university in the cluster shall:

- a. Offer associate and baccalaureate degree level and selected graduate programs within the context of its approved mission statement.
- b. Offer an environment that emphasizes teaching excellence and meets the educational and personal needs of students through effective teaching, academic advising, counseling and university-sponsored cultural, recreational and extra-curricular programs.
- c. Offer a core of liberal studies that supports university degrees in the arts, letters and sciences, as well as specialized professional/technical degrees at the associate and baccalaureate level.
- d. Offer a program of pre-professional curricular offerings consistent with the university's mission.
- e. Expect scholarly activity, including research, scholarship and creative endeavor, that supports its programs at the associate and baccalaureate degree level, its selected graduate programs and its approved mission statement.
- f. Promote the integration of the extension function, assist the University of Wisconsin– Madison Extension in meeting its responsibility for statewide coordination, and encourage faculty and staff participation in outreach activity.
- g. Participate in interinstitutional relationships in order to maximize educational opportunity for the people of the state effectively and efficiently through the sharing of resources.
- h. Embrace and encourage student, staff, and faculty diversity in all areas and demonstrate a commitment to equity, diversity, and inclusion.
- i. Support activities designed to promote the economic development of the state.

**Mission:**

The University of Wisconsin-La Crosse provides a challenging, dynamic, and diverse learning environment in which the entire university community is fully engaged in supporting student success. Grounded in the liberal arts, UWL fosters curiosity and life-long learning through collaboration, innovation, and the discovery and dissemination of new knowledge. Acknowledging and respecting the contributions of all, UWL is a regional academic and cultural center that prepares students to take their place in a constantly changing world community. The university offers undergraduate programs and degrees in the arts and humanities, health and sciences, education, and business administration. The university offers graduate programs related to areas of emphasis and strength within the institution, including business administration, education, health, the sciences, and the social sciences.

**Vision:**

The University of Wisconsin-La Crosse aims to foster within each student the curiosity, creativity, and tenacity necessary to solve the regional, national, and international challenges of the 21<sup>st</sup> century. The university's official motto *mens corpusque* ("mind and body") will continue to guide our direction as a student-centered university committed to a quality education for the whole person. As such, it will continue to provide opportunities both inside and outside the classroom for the development of sound mental, emotional, and ethical skills, as well as general well-being. Our students, faculty, and staff will experience the world through constantly evolving technologies and cultures. Thus, the skills of effective communication, critical thought, leadership, and an appreciation for diversity must be the hallmarks of a UWL education.

**Values:**

Fassett Cotton, our institution's first leader, serving from 1909-1924, conceived the original University of Wisconsin-La Crosse educational philosophy of the total development of the individual. Later, history professor and Dean of the College of Arts, Letters, and Sciences, William M. Laux (1922-1967), suggested the symbols of our official university seal along with the accompanying Latin phrase, *mens corpusque*, ("mind and body"), to exemplify our collective commitment to a high quality education for the whole person. The University of Wisconsin-La Crosse values:

- The *mens corpusque* educational philosophy that recognizes each student as a whole person and aspires to enhance both mind and body through the noble search for knowledge, truth, and meaning central to a wide range of high quality learning experiences and scholarly pursuits.
- Diversity, equity, and the inclusion and engagement of all people in a safe campus climate that embraces and respects the innumerable different perspectives found within an increasingly integrated and culturally diverse global community.
- A high quality of life and work balance, incorporating best practices for shared governance and the acquisition and efficient management of resources, equitable compensation, general wellness, and social, environmental, and economic sustainability.
- Civic engagement and a renewed commitment to the Wisconsin Idea, in which our socially responsible campus serves as a resource for our increasingly intertwined local, state, and global communities, collaborating and sharing resources and expertise to improve the human condition.



## Radiation Therapy Program Mission and Goals

The mission of the Radiation Therapy Program at the University of Wisconsin-La Crosse is to educate and train radiation therapists who are knowledgeable, technically competent and dedicated to their profession and patients. Accomplished by meeting the educational and personal needs of a growing and diverse population, the program will emphasize excellence in education by offering a broad based curriculum in science, liberal studies, professional courses and clinical internship. This program additionally seeks to promote research and provide a base for further professional development of graduates.

### Goals:

1. Students will demonstrate critical thinking skills.
2. Students will develop and exhibit professional behaviors.
3. Students will be clinically competent.
4. Students will demonstrate effective communication skills
5. The program will successfully meet the needs of its students and communities of interest.

## B-2 Radiation Therapy Curriculum

### Pre-Requisite Professional Course Requirements:

The following courses are required for admission to the program, in addition to completion of the general education courses required by the University of Wisconsin-La Crosse. (Applicants need to have completed or have registered for to be an eligible candidate.) All pre-requisite and general education courses should be completed prior to starting the radiation therapy program.

Course Number	Course Name	Credits
*BIO 105	General Biology	4
BIO 312-313	Human Anatomy & Physiology I & II	8
*CHM 103-104	General Chemistry I & II	10
*MTH 151	Pre-calculus	4
*STAT 145	Statistics	4
*PHY 125 or *PHY 103 & 104	Physics for the Life Sciences or Fundamental Physics I or II	4-8
*PSY 100 or *SOC 110 or *SOC 120	General Psychology, Introduction to Sociology, or Social Problems	3

Note: Students whose math placement exam score allows them entrance into MTH 207 (Calculus) are not required to take MTH 151 but should register for STAT 145 (Statistics).

*\*indicates courses which also meet general education requirements*

### Professional Core Courses:

The following courses are completed during the first year of the program on campus by admitted students. Students must maintain a grade of "C" or better to stay in good standing in the major. Retention of good standing in the program requires that students maintain a grade of "C" or higher in all required courses, as well as a semester and cumulative grade point average of 2.75 on a 4.0 scale.

Term Taken	Course Number	Course Name	Credits
Fall	BIO 306	Genetics	4
	HP 250	Medical Terminology (online course)	1
	PHY 386	Radiation Physics	3
	RT 310	Pathophysiology	3
	RT 325	Radiation Therapy Readings, Writings, and Research	3
	RT 330	Professional Issues in Radiation Therapy	2
		<b>Total Semester Credits</b>	<b>15</b>
Spring	BIO 333	Radiation Biology	3
	BIO 432	Biology of Cancer	2
	RT 350	Patient Care Issues	3
	RT 370	Health Care Systems and Human Resources in RT	2
	RT 390	Medical Imaging	3
	RT 400	Clinical Internship Seminar	1
		<b>Total Semester Credits</b>	<b>14</b>
	<b>Total credits</b>	<b>30</b>	

### Recommended Electives: Students should select from the following

HP 106	Introduction to Health Careers	2
PSY 212	Life-Span Development	3
PSY 334	Health Psychology	3
PSY 343	Group Dynamics	3
PSY 347	Empathic Listening Skills	3
SOC 420	Health Care and Illness	3
SOC 422	Death, Grief and Bereavement	3

### B-3 Clinical Internship Coursework:

The second year will be spent in clinical internship at one of the following sites:

- Advocate Aurora Lutheran General Hospital in Park Ridge, IL.
- Ascension-Columbia-St. Mary's Hospital in Milwaukee, Wisconsin
- Aspirus Wausau Regional Cancer Center in Wausau, WI
- Froedtert Hospital and Medical College of Wisconsin in Milwaukee, WI
- Gunderson Health System in La Crosse WI
- Marshfield Health System-Marshfield Clinic in Marshfield, WI
- University of Wisconsin Hospital and Clinics in Madison, Wisconsin

The internship will start in early July following the first year and will continue until the end of July of the next year (approximately 13 months). Retention of good standing in the program requires that students maintain a grade of "C" or higher in all required courses, as well as a semester and cumulative grade point average of 2.75 on a 4.0 scale. Students will complete courses taught either online or by the Education Director at the respective site.

When students have completed the requirements for the University and the major they are eligible to graduate. An “intent to” graduate form must be submitted via WINGS and although students will complete the program in the summer, they will participate in the May commencement ceremony.

### Clinical Internship Courses:

Term	Course Number	Course Name	Credits
Summer I	RT 401	Introduction to Radiation Therapy	3
	RT 471	Clinical Practicum I	3
Fall	RT 411	Principles & Practice of Radiation Therapy I	4
	RT 421	Cross Sectional, Topographic & Radiographic Anatomy	3
	RT 431	Radiation Therapy Physics	3
	RT 472	Clinical Practicum II	6
Spring	RT 412	Principles & Practice of Radiation Therapy II	4
	RT 435	Dosimetry & Treatment Planning	3
	RT 437	Quality Management in Radiation Therapy	2
	RT 473	Clinical Practicum III	6
Summer II	RT 481	Seminar in Radiation Therapy	3
	RT 474	Clinical Practicum IV	4
	<b>Total Credits</b>		<b>44</b>

### B-4 Radiation Therapy Course Descriptions

#### First Year: On-campus Professional Courses

##### BIO 306 Cr. 4

##### Genetics

A comprehensive study of the basic principles of heredity, including Mendelian and Molecular Genetics.

##### BIO 333 Cr.3

##### Radiation Biology

Applications and effects of nuclear radiation on biological systems.

##### BIO 432 Cr.2

##### Biology of Cancer

A survey of the current knowledge of cancer biology. The course will include lectures on a wide range of cancer topics, including: characteristics of cancer cells, carcinogenesis, cancer genes, tumor classification, invasion, metastasis, inheritance, immunology, drug development, treatment, and prevention. This course is taught largely at an undergraduate level.

##### HP 250 Cr.1

##### Medical Terminology for Health Professions

Students in various allied health fields will learn to use medically related terms in their professional communication. This covers the study of the language of medicine used in clinics, hospitals, and other health agencies. The student will develop a working knowledge of terms, word roots, and abbreviations

Radiation Therapy Program Student Handbook  
with emphasis on spelling, definitions, and pronunciation. An introduction to health care records, disease process, operative, diagnostic, therapeutic, and symptomatic terminology of body systems will be covered as they pertain to medical practice. Online course.

**PHY 386 Cr.3**

**Radiation Physics**

This course, building on knowledge of basic physics, explores the area of radiation physics. Characteristics of x and gamma rays are described as well as their interactions in air and matter. The principles involved in the production of radiation are investigated. Methods and instrumentation of measurement of radiation are also covered.

**RT 310 Cr.3**

**Pathophysiology**

This course focuses on the pathophysiologic disorders that affect healthy systems across the life span. Theories of disease causation are introduced. Areas of emphasis include cellular and systemic responses, clinical manifestations and the response of tissue to radiation damage. Acquired, immune, infectious, carcinogenic and genetic alterations in body systems are included.

**RT 325 Cr.3**

**Radiation Therapy Readings, Writing, and Research**

This course introduces radiation therapy students to the language of radiation therapy and professional issues in the field by the use of selected readings. The Radiation Therapy Writing in the Major program will be introduced along with the types of writing practiced in the field. Students will learn basic research techniques and begin to apply them to their professional education.

**RT 330 Cr.2**

**Professional Issues in Radiation Therapy**

This course will provide students with knowledge related to the professional issues pertinent to the field of radiation therapy. Course topics will include: professional development, career advancement/options, radiation therapist scope of practice and practice standards, certification and licensure, radiation therapy professional organizations, legislative issues in radiation therapy, as well as ethics and introductory law in radiation therapy.

**RT 350 Cr.3**

**Patient Care Issues**

This course will prepare students to work directly with patients in a health care setting. It will cover such topics as: communication and patient education, assessment, examination and monitoring of patients, body mechanics and patient handling skills, infection control, management of medical emergencies and CPR, nutritional counseling.

**RT 370 Cr.2**

**Health Care Systems and Human Resources in Radiation Therapy**

This course will provide entry-level radiation therapists with the basic health system and human resource knowledge. Course topics will include characteristics of U.S. Health Care System, insurance, health care access, reimbursement in radiation therapy, and applicable human resource topics.

**RT 390 Cr.3**

**Medical Imaging**

This course will provide radiation therapy students with theory and information regarding medical imaging procedures. Radiation therapists play a crucial role in imaging for treatment planning and treatment field verification. The course will provide instruction on analog and digital imaging, as well as various imaging modalities.

**RT 400 Cr.1**

**Clinical Internship Seminar**

This course will prepare students for the clinical internship portion of the program. Course topics will include: professional development, team building skills, radiation therapy terminology, basic clinical concepts, immobilization device construction, CPR, and radiation therapy equipment basics.

**Second Year- Clinical Internship Courses**

**RT 411 Cr.4**

**Principles and Practice of Radiation Therapy I**

This course, taught during the clinical internship year, addresses the concepts of cancer treatment, focusing primarily on radiation therapy. Methods of improving therapeutic advantage are investigated. Students learn safe and effective use of equipment and accessories along with the rationale for their clinical application. Technical aspects of treatment simulation and delivery are developed. Treatment related side effects and their management and special patient situations are addressed.

**RT 412 Cr.4**

**Principles and Practice of Radiation Therapy II**

This course, taught during the clinical internship, advances the student's knowledge of neoplastic disease management. Cancers and some benign conditions of various body sites are discussed in relation to natural history, treatment and prognosis. Technical aspects related to radiation planning and delivery are closely investigated as well as pertinent anatomical considerations, combination therapy, treatment results and the therapist's role in disease management.

**RT 421 Cr.3**

**Cross Sectional, Topographic & Radiographic Anatomy**

This course, taught during the clinical internship, revisits anatomy specifically from an imaging perspective. Students will learn to identify structures and pathology on x-rays, CT and MRI scans and locate topographic landmarks on diagnostic and simulation films.

**RT 431 Cr.3**

**Radiation Therapy Physics**

This course, taught during the clinical internship, expands the student's understanding of physics related to radiation therapy. Topics include the components and operation of linear accelerators and other treatment machines, brachytherapy, specification and modification of beam quality and characteristics, measurement of absorbed dose, treatment machine calibration, beam geometry and treatment with particles.

**RT 435 Cr.3**

**Dosimetry and Treatment Planning**

This course, taught during the clinical internship, focuses on the characteristics, measurement and manipulation of radiation dose delivery in treatment. This involves advanced concepts of methods of altering dose to optimize the effectiveness of the radiation treatment. Treatment planning for a variety of tumor sites and situations is discussed.

**RT 437 Cr.2**

**Quality Management in Radiation Therapy**

This course, taught during the clinical internship, focuses on the purpose and techniques of quality management in a radiation oncology program. The importance of documentation, consistent application of specified protocols and assessment of outcomes are addressed. The responsibilities of the radiation therapist within the radiation oncology team for quality functions are highlighted.

**RT 471 Cr.3**

**Clinical Practicum I**

This course, offered the first summer session of the clinical internship, will orient students to the clinical operation of the internship site. Students will observe staff operations in the radiation therapy clinic, simulation, treatment planning, and treatment delivery areas.

**RT 472 Cr.6**

**Clinical Practicum II**

This course, offered fall semester of the clinical internship, will progress students' clinical skills from observation in simulation, treatment planning and treatment delivery to the point of participation and development of basic competencies.

**RT 473 Cr.6**

**Clinical Practicum III**

This course, offered spring semester of the clinical internship, will offer students the opportunity to continue the process of developing competence and confidence in the areas of simulation, treatment planning and treatment delivery. They will demonstrate competence in intermediate and some advanced procedures. Students will also be given opportunity to work in dosimetry.

**RT 474 Cr.4**

**Clinical Practicum IV**

This course, offered during the final summer session of the clinical internship, will complete the students' clinical education experience. By the end of this course, students will have developed proficiency and confidence in areas of simulation, treatment planning and treatment delivery. They will complete all required competencies. Opportunities to broaden the experience and work with different equipment, techniques and advanced procedures will be offered.

**RT 481 Cr.3**

**Seminar in Radiation Therapy**

The course, offered during the clinical internship, is a capstone course in which students present patient case information, discuss application of radiation science theory, review and critique journal articles and prepare for the national certification exam.

**RT 499 Cr.1-3**

**Independent Study in Radiation Therapy**

Independent study in radiation therapy may include individual readings and writing, projects, or research under the direction of a radiation therapy instructor. Repeatable for credit – maximum six.

**B-5 Developing Professional Behaviors**

The mission of the Radiation Therapy Program at the University of Wisconsin-La Crosse is to educate and train radiation therapists who are knowledgeable, technically competent and dedicated to their profession and patients. Accomplished by meeting the educational and personal needs of a growing and diverse population, the program will emphasize excellence in education by offering a broad based curriculum in science, liberal studies, professional courses and clinical internship. This program additionally seeks to promote research and provide a base for further professional development of graduates.

To effectively meet the mission and goals of the program, students must be taught in all three learning domains; cognitive, psychomotor, and affective. Professional development of students fits within the affective domain and is required in order for students to be successful in their educational program and for graduates to be effective practitioners. This development must be progressive throughout the radiation therapy curriculum. In order to facilitate such development, it is necessary to define what the word “professional” means in regard to Radiation Therapists and what professional behavior consists of.

The following listing, Characteristics and Abilities Essential to the Development of the Professional Radiation Therapist, has been compiled by the program to guide its approach to professional development of its students. Resources for this listing included The ASRT Radiation Therapy Standards of Practice (Professional Performance Standards).

Progress toward development of professional behavior is expected in all radiation therapy courses and is included in course syllabi.

**Characteristics and Abilities Essential to the Development of the  
Professional Radiation Therapist**

**Commitment to Learning: (Evidenced by)**

Showing respect to all instructors and being attentive at all times in class and in professional meetings.

Eagerness to acquire understanding of concepts and development of skills

Use of ongoing self-assessment to evaluate personal performance, knowledge and skills

Seeking out constructive feedback and effectively using it for personal and professional improvement

Exploration and Investigation to advance the professional knowledge base

Maintaining competence in professional practice and development of competence with new technology

Continuing education after graduation to maintain and update knowledge

**Interpersonal and Communication Skills: (Evidenced by)**

Development of effective oral, written and non-verbal communication skills  
Implementation of effective communication skills in practice with patients, their families and radiation therapy team members  
Appropriate interactions with patients, families, colleagues and other health practitioners  
Empathy and compassion for patients and their families  
Promotion of a positive, collaborative practice atmosphere

**Problem solving and Critical thinking: (Evidenced by)**

Ability to recognize and define problems, analyze data, develops and implement solutions and evaluate outcomes  
Ability to assess and evaluate situations, logically question, distinguish relevant from irrelevant issues and make appropriate judgments  
Application of problem solving and critical thinking skills to personal, patient related or work related issues.

**Effective use of time and resources: (Evidenced by)**

Ability to take initiative and make the most of personal, classroom, and clinical time to maximize their educational value  
Adaptability and creativity in making adjustments to schedule changes and resource availability

**Professional conduct: (Evidenced by)**

Use of appropriate dress and appearance to enhance patient and peer confidence  
Adherence to the professions accepted ethical standards  
Commitment to providing optimal care to all patients  
Dependability in attendance  
Responsibility in fulfilling commitments and in reporting errors  
Being accountable for decisions and actions  
Support of, and participation in professional organizations  
Providing a positive role model and professional image of Radiation Therapists to others in public and private settings

**Stress Management**

Ability to identify sources of stress and cope effectively with them



**University of Wisconsin-La Crosse, Radiation Therapy Program  
Professional Development Progress**

**Student Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Course: Summer Term, Fall Term, Spring Term**

Midterm			Course Completion			
S	U	N/A	S	U	N/A	<b>The student demonstrates:</b>
						1. Eagerness to acquire understanding of concepts and development of skills
						2. Being prepared for, and alert at all times during class, clinical rotations, and at professional meetings.
						3. Effective use of ongoing self-assessment to evaluate personal performance, knowledge and skills
						4. Seeking out constructive feedback and effectively using it for personal professional improvement
						5. Exploration and Investigation to advance the professional knowledge base (reading and seeking information about the profession and in regard to clinical assignments and research questions)
						6. Development of effective oral, written and non-verbal communication skills
						7. Appropriate and respectful interactions with instructors, fellow students and other health practitioners.
						8. Promotion of a positive, collaborative learning atmosphere
						9. Ability to recognize and define problems, analyze data, develop and implement solutions and evaluate outcomes
						10. Ability to assess and evaluate situations, logically question, distinguish relevant from irrelevant issues and make appropriate judgments
						11. Taking initiative and making the most of personal, classroom, and clinical time to maximize their educational value
						12. Adaptability and creativity in making adjustments to schedule changes and resource availability
						13. Use of appropriate dress and appearance to enhance patient and peer confidence.
						14. Honesty and integrity in academic work and exams and in clinical activities
						15. Uses electronic devices (cell phones, iPads, iPods) only at appropriate and/or designated times.
						16. Adherence to the profession's accepted ethical standards, including confidentiality
						17. Dependability in attendance
						18. Responsibility in fulfilling commitments
						19. Being accountable for decisions and actions
						20. Support of, and participation in professional organizations
						21. Providing a positive role model and professional image of Radiation Therapists to others in public and private settings.
						22. Ability to identify sources of stress and cope effectively with them
						23. Follows customer service policies

**University of Wisconsin-La Crosse, Radiation Therapy Program  
Professional Development Progress  
Course: Campus courses- Instructor Evaluation**

**Student Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Midterm			Course Completion			
S	U	N/A	S	U	N/A	<b>The student demonstrates:</b>
						Eagerness to acquire understanding of concepts and development of skills
						Being prepared for, and alert at all times during class and at professional meetings.
						Exhibits professional behaviors
						Development of effective oral, written and non-verbal communication skills
						Appropriate and respectful interactions with instructors and fellow students.
						Promotion of a positive, collaborative learning atmosphere in group work and classroom setting
						Taking initiative and making the most of personal, classroom, and clinical time to maximize their educational value
						Adaptability and creativity in making adjustments to schedule changes and resource availability
						Honesty and integrity in academic work and exams and in clinical activities
						Uses electronic devices (cell phones, iPads, iPods) only at appropriate and/or designated times.
						Dependability in attendance
						Responsibility in fulfilling commitments
						Being accountable for decisions and actions
						Support of, and participation in professional organizations (RTOW, RT Club, CAC, Relay for Life)
						Providing a positive role model and professional image of Radiation Therapists to others in public and private settings.
						Ability to identify sources of stress and cope effectively with them.

Please use the back side to explain any unsatisfactory marks.

Signature/Date of Review: \_\_\_\_\_

Area(s) of noticed improvement or growth:

Area(s) for improvement:

### Goals for Student Writing

The Radiation Therapy Program acknowledges the value of writing skills in the development and professional life of a radiation therapist. Formal writing is defined, by the major, as writing that is intended to communicate information, ideas or feelings with another person or persons. Skill in formal writing is required for effective communication with patients, the members of the radiotherapy team and professional colleagues near and far. Sharing information and expressing ideas is essential in providing radiation therapy services. Informal writing, defined as writing intended for the self as audience, is also important. Though its presentation may be less complete and polished than formal writing, it is used to help the writer remember items of importance or to organize and clarify his/her own thinking. Informal writing is particularly important in the learning process of students and professionals.

A comprehensive and integrated approach to writing involves all of the courses in the major. The plan for writing supports the mission and goals of the Radiation Therapy program. Students completing the requirements for a degree in Radiation Therapy will have met the writing requirement for the University.

### B-7 Program Officials and Their Roles

<b>Program Director:</b>	<b>Melissa Weege, MS, RT(T), CMD</b>	
<b>Office:</b>	<b>4094 Health Science Center, 1725 State St. La Crosse, WI 54601</b>	
<b>Telephone:</b>	<b>(608)785-6979</b>	<b>fax: (608) 785-8460</b>
<b>Email:</b>	<a href="mailto:mweege@uwlax.edu">mweege@uwlax.edu</a>	

Ms. Weege works full-time at UW-La Crosse in the health professions department as a clinical assistant professor. Responsibilities are as follows:

- Organization, administration, review and development of program.
- Assurance of program effectiveness through outcome assessment and post graduate surveys.
- Participation in budget planning.
- Evaluation and assurance of effectiveness of students' clinical education.
- Course development and scheduling.
- Coordination of student application and selection process.
- Student counseling and advisement in coordination with the on-campus advisor.
- Representation of student and program needs to department, college, university and community.
- Instruction and evaluation of students in professional core classes on campus.
- Chair of Advisory Committee for the major, duties include scheduling, notification of meeting, preparation of agenda and management of meeting.
- Service to University through various campus committees.
- Maintenance of knowledge of the profession of Radiation Therapy and educational methodologies through continuing professional development and pursuit of scholarly activities.

**Clinical Coordinator:** Amanda Carpenter, MS, RTT  
**Office:** 4052 Health Science Center, 1725 State St.  
La Crosse, WI 54601  
**Telephone:** (608)785-5164 fax: (608)785-8460  
**Email:** [acarpenter@uwlax.edu](mailto:acarpenter@uwlax.edu)

Ms. Carpenter works full-time at UW- La Crosse in the health professions department as a clinical assistant professor. Responsibilities are as follows:

- Correlation of clinical education with didactic education at clinical sites and on campus.
- Collaborate with program director in ongoing design, instruction, assessment, revision, and implementation of the curriculum.
- Coordinates clinical education and evaluates its effectiveness in cooperation with program director and clinical supervisors.
- Oversee all clinical supervisors and instructors at internship sites.
- Evaluation of student progress in clinical competency process.
- Teaches courses as assigned by program director and chair of Health Professions Department.
- Responsible for course development, instruction, assessment of student learning, and assessment of assigned courses.
- Advises radiation therapy program students
- Participates in assurance of effectiveness of outcomes assessment plan.
- Maintenance of knowledge of program policies and procedures, and student progress.
- Participation in selection of students for admission and assignment to clinical internship sites.
- Maintains current knowledge of program policies, procedures, and student progress.

**Medical Advisor:** Patrick Conway, MD  
**Gundersen Health System**  
La Crosse, Wisconsin 54601  
**Email:** [pdconway@gundersenhealth.org](mailto:pdconway@gundersenhealth.org)

Dr. Conway is a radiation Oncologist at Gundersen Health System in La Crosse, Wisconsin. He travels to campus occasionally, as needed.

Responsibilities are as follows:

- Advisement to the Program Director and Clinical Coordinators as requested regarding the operation of the program and in particular the clinical education of students.
- Maintenance of an understanding of program goals, objectives and policies.
- Participation in student selection and assignment to clinical internship sites.
- Advocating for the program and its students in the medical community and at the clinical affiliates.
- Member of the Advisory Committee for the major.
- Maintenance of knowledge of the profession of Radiation Oncology and its relationship to Radiation Therapy through continuing professional development and pursuit of scholarly activities.

**Educational Directors/Clinical Supervisors:**

Internship site	Educational Director	Telephone no.	Email
Ascension-Columbia-St. Mary's	Erin Wocken, BS, RTT	414-585-1961	<a href="mailto:erin.wocken@ascension.org">erin.wocken@ascension.org</a>
Advocate Aurora Health- Lutheran General	Jim Bauml, MHA, RTT	847-723-8447	<a href="mailto:James.Bauml@aah.org">James.Bauml@aah.org</a>
Aspirus Hospital	Victoria Heitman BS, RTT	715-847-2000 ext. 52737	<a href="mailto:Victoria.Heitman@aspirus.org">Victoria.Heitman@aspirus.org</a>
Froedtert Hospital	Karen Mannisto, BS, RTT	414-805-4495	<a href="mailto:karen.mannisto@froedtert.com">karen.mannisto@froedtert.com</a>
Gundersen Lutheran	Daina Drath, BS, RTT	608-775-2158	<a href="mailto:dmdrath@gundersenhealth.org">dmdrath@gundersenhealth.org</a>
Marshfield Clinic	Mindy Kren BS, RTT	715-389-3339	<a href="mailto:Kren.mindy@marshfieldclinic.org">Kren.mindy@marshfieldclinic.org</a>
UW Hospital & Clinics	Amy Heath, MS, RTT	608-263-8517	<a href="mailto:AHeath@UWHealth.org">AHeath@UWHealth.org</a>

**Responsibilities of Educational Directors/Clinical Supervisors:**

- Manage the educational program at the assigned clinical internship site.
- Provide didactic and/or clinical instruction in radiation therapy courses.
- Evaluate student competence and progress on an ongoing basis, providing feedback on a periodic basis.
- Counsel and coach students as required.
- Coordinate clinical and didactic instruction.
- Maintain student records.
- Report to the clinical coordinator and program director regularly and as needed.
- Attend regular in person and virtual meetings.
- Maintain knowledge of program policies and procedures.
- Educational Directors and Clinical Supervisors may serve on the Advisory Committee.
- Maintain knowledge of the profession of radiation therapy and educational and evaluative methodologies through continuing professional development and pursuit of scholarly activities.

**B-8 Advisory Committee for the Major in Radiation Therapy**

**The Role of the Advisory Committee is to:**

1. Develop, revise and approve Mission and Goals of major
2. Review, revise and approve program printed materials.
3. Discuss, adjust and approve program curriculum, policy and procedures.
4. Provide guidance to program officials as requested.
5. Assists in the process of student discipline and grievance when concerns are brought to it.
6. Plan for and assist in preparation of documents for accreditation purposes.
7. Review selection and admission practices.
8. Participate in program outcome assessment.
9. Promote the major in radiation therapy within the college, university and community.
10. Advocate for program officials and students as necessary.

*Members:*

Melissa Weege	Program Director, Chair
Amanda Carpenter	Clinical Coordinator
Patrick Conway, MD	Medical Advisor, Radiation Oncologist
Jim Bauml	Educational Director at Advocate Lutheran
Karen Mannisto	Educational Director at Froedtert Hospital
Amy Heath	Educational Director at University of Wisconsin Hospital
Mindy Kren	Educational Director at Marshfield Clinic
Daina Drath	Clinical Supervisor, Gundersen Health System
Erin Wocken	Clinical Supervisor, Ascension-CSM Hospital
Victoria Heitman	Educational Director at Aspirus Hospital
TBD (new hire)	Nuclear Medicine Program Director, UW-La Crosse
TBD (new hire)	Dean, College of Science and Health, UWL
Tom Kernozek	Chair of Health Professions Department
Carla Burkhardt	Academic Services Director, College of Science and Health
Travis Hendrickson	Advisor, Pre-Health Advising Center, UWL
Student Members	(Representative of RT Club and 1 student from clinical internship)

**UW-La Crosse Program Assistants:**

Shauna Salow, Peter Amann, Emilee Mielke, Angela Wiste  
4031 Health Science Center, UWL  
Telephone: (608)785-8470

**B-9 Program Advisement**

1. Students admitted to the major are assigned to Melissa Weege (the Program Director) or Amanda Carpenter (Clinical Coordinator) for advisement on campus, course registration, and course concerns. Additionally, they will meet for professional development at mid-semester.
2. During the clinical internship year, the Radiation Therapy Program Officials are available for advisement.
  - Students will meet at mid- semester, and at the end of each semester or summer session with the Education Director/Clinical Supervisor at the clinical site, to evaluate progress in clinical and didactic courses and completing professional development evaluations.
  - Following each clinical rotation, students will conference with clinical instructors and/or the Education Director/Clinical Supervisor or Clinical Coordinator regarding clinical progress via the affective evaluation.
  - Students are required to meet with the Education Director/Clinical Supervisor during their internship should their final grade in a course be less than a "C" or if the instructor has noted in a progress report that this is likely. Following this meeting, the program director will be notified and the Radiation Therapy Student Progress Committee will meet with the student.

**B-10 Expenses and Financial Aid**

1. Tuition and fees are established by the university for each academic year and are published in UW-L Undergraduate Course Catalog for each semester and summer session. Questions about tuition and fees may be directed to the Cashier's Office at 121 Main Hall.
2. The Board of Regents reserves the right to change tuition and fees without published notice.
3. The Clinical Internship will start in early July for students in good standing in the major who have met all of the pre-clinical required courses. The internship continues through the end of July of the next year (approximately 13 months). Tuition and fees will be assessed for two semesters and two summer sessions.
4. Tuition deposits and payment plans are described in the UW-L Undergraduate Course Catalog. <http://catalog.uwlax.edu/undergraduate/>
5. Student services are funded through segregated fees determined by student government.
6. Students in their internship will be assessed a "Clinical Experience Fee" for each term except the final summer term. This amount will be communicated to the students during the spring semester of their first year in the program. The amounts approximately \$7000; spread out over the first three terms of internship. The College of Science and Health determines the fees each year based on student enrollment in all undergraduate health professions programs. Additionally, at the start of internship, students will be assessed a one-time fee of \$100 for access to the program's clinical management system, Trajecsys. This fee will be assessed as a special course fee for RT 471. Some sites may charge \$40 for students to enroll in their "Clinical Exchange" software for clinical student monitoring throughout the health system, Eg. UW Hospitals and Clinics in Madison.
7. Undergraduate course textbooks are available on a rental basis through the Textbook Rental Service. A rental fee is included in segregated fees. Students may purchase their textbooks, if desired. Students will purchase additional reading material throughout the program as well as directed by instructors.
8. Student health service is available for students on campus or local internship (distant if a day off is taken to come to campus to utilize services). Some medical services are not provided and students are advised to maintain health insurance to make sure that all health care needs can be met. Students who are in their clinical internship year will be distant from the Health Center and must carry health insurance to cover medical expenses. Proof of health insurance must be provided to the site's Education Director.
9. Living expenses are the responsibility of the student. University housing and food service is available while students are attending the UW-La Crosse campus. Students must make their own arrangements for room and board during the clinical internship period in Milwaukee, Madison, La Crosse, Marshfield, Wausau or Park Ridge, IL.
10. Financial aid information and programs are available through the Student Financial Aid office. <https://www.uwlax.edu/finaid/>
11. Refund of tuition upon withdrawal depends on the timing of withdrawal, dropping from 100% in the first few days of the semester to 50% for an additional time period and to zero after that. Specifics can be found in the current UW-L Undergraduate Course Catalog.
12. Students will be required to carry liability insurance for their clinical internship. A group policy rate has been obtained. The premium is paid as a course fee for RT 471. It is approximately \$15
13. Students will be subject to a criminal background check prior to admission to the first year of the program, as well as the clinical internship. The fees for these checks are added as special course fees in RT 471. It is approximately \$10.

### Background

The Joint Commission (TJC) in compliance with standards HR 1.20 and EP 5, and the current Wisconsin Caregiver Law with the Department of Health and Family Services (chapters 48 and 50 of the Wisconsin Statutes) background checks are now required for all students in the allied health areas working in clinical settings. To ensure compliance with these rules, the results of criminal background checks must be obtained for all current students before the program begins (early summer). As a representative of the University of Wisconsin-La Crosse, you are expected to practice sound professional ethics and to conduct yourself in a professional, responsible, and reliable manner at all times. You are expected to maintain high professional standards and a part of this professional standard is a criminal background check.

#### **Important Notice**

*Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies. Clinical internship sites require a criminal background check and Caregiver check in order to permit participation in the clinical internship. Participation in clinical internship is a required part of the curriculum and a requirement for graduation. Clinical internship sites may deny a student's participation in the clinical internship because of a felony or misdemeanor conviction. Failure to produce a criminal background check would result in delayed graduation or in the inability to graduate from the program. If you have a question, please contact the clinical education coordinator or program director.*

#### **Derogatory information can include but is not limited to the following:**

- Conviction of a felony offense.
- Misdemeanor convictions probated sentences or felony deferred adjudications involving crimes against person (including physical or sexual abuse);
- Misdemeanor convictions related to moral turpitude (including prostitution, public lewdness, exposure etc)
- Felony conviction/deferred adjudications for the sale, possession, distribution, or transfer of narcotics or controlled substances;
- Inclusion on the list of Ineligible Persons;
- Providing a false statement on the application Initial Background Check (Student Completes)

Students are responsible to arrange for a criminal background check using a company that is capable of providing the service in an orderly and timely manner. The Health Professions Department has established a relationship with CertifiedBackground ([www.certifiedbackground.com](http://www.certifiedbackground.com)). The company charges between \$20.00 and \$45.00 depending on how many places you have lived prior to attending UWL.



#### Radiation Therapy Program Student Handbook

Background checks are required for clinical internship placements in many facilities. Thus all students in the Health Professions Department will have a criminal background check done prior to the first day of class to facilitate fieldwork assignments. All costs incurred by the students for this background check are the responsibility of the student. CertifiedBackground.com makes the results available to the Health Professions Department electronically.

Re-Check Prior to Clinical Internship (Program Completes) Most facilities require a current criminal background check (done within the past 6 months) and a caregiver background check. The Health Professions Department will conduct a follow-up Criminal History Background Check for Wisconsin and Minnesota and a Caregiver background check before the student's first full time rotation/clinical/fieldwork assignment. All students are required to have this re-check and it will be charged to the student as a special course fee. Criminal Background Checks (CBCs) completed at other facilities may not be accepted as a substitute for this process.

#### Recordkeeping

Students are advised to keep a copy of the results for their personal files to take with on their clinical/fieldwork rotations.

#### Confidentiality

Results of all background searches will be kept confidential and will be disclosed only to the extent necessary to administer and enforce this policy or pursuant to appropriate legal process. Students are required to complete and sign the authorization, acknowledgement, and release form that permits sharing necessary criminal background information to the placement facility(s) (Attachment 1). Criminal background records are stored in a secure place and kept separate from the student's academic file. Criminal background check information is destroyed once the student is no longer a student in the Health Professions Department.

#### Disclosure

The student will be notified if the background check information raises a potential concern for placement or consequences for credentialing or licensure. The Program Director will also be notified of any record that raises a potential concern for the student. The Director will then discuss the potential impact of the record and options with the student.

#### Obligation to Report

All students admitted to the Health Professions Department have an ongoing obligation to report any criminal conviction that may impact upon the student's continued ability to participate in the clinical program to the program director/chair of the program no later than the next day of its occurrence. Failure to comply with any aspect of this policy will result in immediate dismissal from the students' program.

## Section C- Program Policies

### C-1 Campus Class Attendance Policy

Prompt and regular attendance at all classes is expected. This is the start of your professional development and should be treated as reporting to a job. If you need to miss a class, you should contact the instructor **prior** to the class either by phone or email. Class should only be missed for illness or unforeseen circumstances. Skipping classes for reasons other than illness or unforeseen circumstances is not permitted. You are not allowed to have more than 2 separate occurrences of absenteeism. Additionally, if you are absent for 3 or more consecutive days, you will need to provide acceptable medical documentation. See additional policies regarding clinical internship attendance later in this document.

### C-2 Grading Policy

The following grade scale will be used for Radiation Therapy didactic coursework whenever possible:

94-100	A	4.0
92- 93	A/B	3.5
86- 91	B	3.0
84- 85	B/C	2.5
77- 83	C	2.0
70- 76	D	1.0
---- 69	F	0.0

### C-3 Academic Honesty Policy

Any form of cheating or claiming credit for work other than your own will automatically result in a grade of a ZERO for the applicable assignment or exam.

### C-4 Assignment Policy

All assignments will be due by date and time as indicated by instructor. There will be 10% points deducted for each day that the assignment is late in clinical courses. In on campus courses, no unexcused late work is allowed and will result in a ZERO on the assignment.

### C-5 Cell phone policy

Professional development includes being focused on the tasks at hand and the patient. Cell phone use causes distraction during clinic and classroom time, keeping you from being focused. Therefore, cell phones are not allowed to be seen or heard in the classroom or clinical setting. They should be stored for use during non-work or classroom time as determine by clinical instructor or supervisor, or classroom instructor. Other electronic portable devices may also be prohibited per the instructor, such as tablets, smart watches etc. Failure to comply with this policy will result in unsatisfactorily met expectations on the professional development evaluation.

### C-6 Laptop Computers vs. tablets

Students in the radiation therapy program are encouraged to own a lap top computer or mobile tablet for access to Canvas, the student learning management system. All course materials, assignments, discussions are posted in Canvas.

## C-7 Academic and Graduation Policies

1. Permanent student records are kept by the Records and Registration Office. These are confidential between the student and the University. Students may request transcripts of their permanent academic records at any time, but transcripts will not be released without the student's authorizing signature. Rights of access are in accordance with *the U. S. Family Educational Rights and Privacy Act of 1974* as amended.
2. Transfer of credits earned at colleges and universities accredited by an acceptable regional accreditation agency will be governed by University rules as presented in the Undergraduate Course Catalog and/or by established articulation agreements for the major.
3. Grades are assigned according to the program's grading system on a four-point scale (detailed in the Undergraduate Course Catalog along with definitions and policies for pass/fail, incomplete, withdrawal and credit by examination).
4. **Graduation Requirements:** Candidates for the bachelor in science degree in radiation therapy must accomplish the following prior to graduation. See also UWL Undergraduate Course Catalog, <http://catalog.uwlax.edu/undergraduate/degreerequirements/#baccalaureate-degree>
  - a. Fulfill the general education requirements.
  - b. Complete at least one ethic studies (diversity course).
  - c. Be a student in good standing ("not in good standing" or "probation" status must be cleared)
  - d. Complete the courses prescribed by the Undergraduate Curriculum Committee for the degree in radiation therapy with at least a 2.75 grade point average. Grades below "C" in individual required courses require clearance of deficiency as judged by the Program Officials.
  - e. Meet the requirements for clinical competency as described in the clinical practicum course syllabi.
  - f. Earn at least 120 semester credits with 40 credits in 300 and 400 level courses.
  - g. A minimum of 30 semester credits in residence at UWL is required for graduation.
  - h. Submit an application for graduation via the "Apply for Graduation" link in the WINGS Student Center as soon as the student has registered for his or her final semester or summer term in residence. Students are scheduled to complete their requirements with the final summer session, but, if cleared by Program Officials, are allowed to participate in graduation exercises in May.
5. **Student Withdrawal and Reentry**
  - a. Withdrawal from a course is usually not possible without affecting status in the major. The curriculum is rigorous and strictly sequenced. If a student would withdraw from a course, he/she would be unable to proceed into the next semester or summer session and would have to appeal to the Student Progress Committee to be allowed to retake the course at a later time as members of future classes would be affected.
  - b. Withdrawal from the major should be considered carefully prior to any action being taken. The student is strongly urged to talk with the on campus advisor as well as the Program Director. Program personnel will make every attempt to deal with the student's concerns and facilitate continuance. If the student determines that withdrawal is the best course of action after these discussions he/she is asked to submit a statement in writing that decision to the Program Director.
  - c. Reentry and Readmission: Students who feel they must withdraw from the radiation therapy major once accepted, are encouraged to speak to radiation program officials prior to withdrawal. Students are not guaranteed placement should they wish to reenter. They must re-apply to the major and be considered for placement by the Selection Committee.

- d. A **leave of absence** approval is required of any student who will miss more than two consecutive weeks of training while in the professional phase of the major. A student must submit a request in writing for such a leave and speak with the Program Director. Together, the student and the Program Director will develop a plan for a return after leave of absence. If the leave is during the clinical internship, the Clinical Coordinator will also be involved in developing the plan. Approval of the plan must be granted by the Program Officials.
- e. Deferral of admission is considered for extenuating circumstances such as special academic opportunities, military deployment, family, or personal illness/ significant life events, etc. Student should contact program director for consideration of deferral to following academic year. The approval of the request must be granted by the Program Officials.

### C-8 Radiation Therapy Program Student Retention, Probation, and Dismissal

In order to remain as a student in good standing in the Radiation Therapy program students must meet program requirements as per the following:

1. Students must maintain a grade of "C" or higher in all required courses, as well as a semester and cumulative grade point average of 2.75 on a 4.0 scale.
2. Students must comply with program and University policies.
3. Students must make satisfactory progress in development of clinical skills and professional behavior.

### Academic Deficiencies

1. A student who does not meet didactic (classroom), clinical, or professional development program requirements for grades will be notified by the Program Director of the concern at the earliest possible time after grades are posted.
2. Following such notification, the Student Progress Committee, a sub-committee of the Radiation Therapy Advisory Committee, will meet within 10 working days to discuss the deficiency and make a determination of the action to be taken. It is preferred that the meeting be held in person with the student being given the opportunity to represent him/herself or to submit a written statement for the Committee's review. Under certain circumstances a telephone or video conference call may be held instead of a face-to-face meeting.
3. A decision as to the student's status in the program will be communicated in writing to the student within 5 working days of the Student Progress Committee meeting. The decision may involve remedial work, probation or withdrawal from the program.
4. If the decision involves remediation or probation, an explanation of the "plan to regain good standing" in the program (including time frames) will be included in the letter to the student. This is referred to as a learning plan as well.
5. If the student successfully follows the plan and meets program requirements within the timeframe specified, he/she will regain good standing in the program.
6. If the student is not successful in following the plan and meeting program requirements within the specified timeframe, the Student Progress Committee will meet to determine the appropriate action. This meeting will be held within 10 working days of the deadline specified in the "plan for regaining good standing". The meeting will be held as described in number 2 above. The Committee may recommend dismissal from the program.

7. A student may be classified as on probation or dismissed in regard to the program, even if not on probation, suspended, or expelled from the University.

### **Failure to comply with program and University policies**

#### **Academic Misconduct**

1. Academic misconduct, and procedures to deal with it, have been defined by the Board of Regents of the University of Wisconsin System in UWS 14. The entire document can be found at: [https://docs.legis.wisconsin.gov/code/admin\\_code/uws/14](https://docs.legis.wisconsin.gov/code/admin_code/uws/14). Portions of that policy are included below.
2. Academic misconduct is an act in which a student:
  - a. Seeks to claim credit for the work or efforts of another without authorization or citation;
  - b. Uses unauthorized materials or fabricated data in any academic exercise;
  - c. Forges or falsifies academic documents or records;
  - d. Intentionally impedes or damages the academic work of others;
  - e. Engages in conduct aimed at making false representation of a student's academic performance; or
  - f. Assists other students in any of these acts.
3. The following are the disciplinary sanctions that may be imposed for academic misconduct in accordance with the procedures of UWS 14.05, 14.06 or 14.07: (One or more of the disciplinary sanctions may be imposed for an incident of academic misconduct.)
  - a. An oral reprimand;
  - b. A written reprimand presented only to the student;
  - c. An assignment to repeat the work, to be graded on its merits;
  - d. A lower or failing grade on the particular assignment or test;
  - e. A lower grade in the course;
  - f. A failing grade in the course;
  - g. Removal of the student from the course in progress;
  - h. A written reprimand to be included in the student's disciplinary file;
  - i. Disciplinary probation;
  - j. Suspension or expulsion from the university.

***Procedures are detailed in the document referenced above.***

#### **Non-Academic Misconduct**

1. Non-Academic misconduct, and procedures to deal with it, have been defined by the Board of Regents of the University of Wisconsin System in UWS 17. The entire document can be found at: [https://docs.legis.wisconsin.gov/code/admin\\_code/uws/17](https://docs.legis.wisconsin.gov/code/admin_code/uws/17). Portions of that policy are included below.
2. The university may discipline a student in nonacademic matters in the following situations:
  - a. For conduct which constitutes a serious danger to the personal safety of a member of the university (*or clinical internship site*), community, or guest.
  - b. For stalking or harassment.
  - c. For conduct that seriously damages or destroys university (*or clinical internship site*) property or attempts to damage or destroy university (*or clinical internship site*) property, or the property of a member of such.

- d. For unauthorized possession of university (*or clinical internship site*) property or property of another member of such.
  - e. For acts which violate the provisions of Ch. UWS 18, Conduct on University Lands, [https://docs.legis.wisconsin.gov/code/admin\\_code/uws/18](https://docs.legis.wisconsin.gov/code/admin_code/uws/18).
  - f. For knowingly making a false statement to any university (*or clinical internship site*) employee or agent on a university-related matter, or for refusing to identify oneself to such employee or agent.
  - g. For violating a standard of conduct, or other requirement or restriction imposed in connection with disciplinary action.
3. The following are the disciplinary sanctions that may be imposed for nonacademic misconduct, in accordance with the procedures of UWS 17.05 through 17.07:
- a. A reprimand; Denial of specified university privileges;
  - b. Imposition of reasonable terms and conditions on continued student status;
  - c. Restitution;
  - d. Removal of the student from the course in progress;
  - e. Disciplinary probation;
  - f. Suspension; or
  - g. Expulsion.

Process to be followed is covered in the document referenced above. Violations are reported to the Dean of Students and handled through the Office of Student Life.

**Failure to comply with program policies or to make satisfactory progress in clinical skill and professional development.**

1. A student who does not comply with program policies or is deficient in development of clinical skills or professional behavior will be notified of the concern by the Program Director at the earliest possible time after the non-compliance or deficiency is recognized and reported.
2. Following such notification, the Student Progress Committee, a sub-committee of the Radiation Therapy Advisory Committee, will meet within 10 working days to discuss the issue and make a determination of the action to be taken. It is preferred that the meeting be held in person with the student being given the opportunity to represent him/herself or to submit a written statement for the Committee's review. Under certain circumstances a telephone or video conference call may be held instead of a face-to-face meeting.
3. A decision as to the student's status in the program will be communicated in writing to the student within 5 working days of the Student Progress Committee meeting. The decision may involve remedial work, probation or suspension from the program.
4. If the decision involves remediation or probation, an explanation of the "plan to regain good standing" in the program (including time frames) will be included in the letter to the student.
5. If the student successfully follows the plan and meets program requirements within the timeframe specified, he/she will regain good standing in the program. The program director will notify the student of their change in standing in the program.
6. If the student is not successful in following the plan and meeting program requirements within the specified timeframe, the Student Progress Committee will meet to determine the appropriate action. This meeting will be held within 10 working days of the end of the deadline specified in the "plan for regaining good standing". The meeting will be held as described in number 2 above. The Committee may dismiss the student from the program.

7. A student may be classified as on probation or dismissed in regard to the program, even if not on probation, suspended, or expelled from the University.

## C-9 Student Appeal Processes

### ***Grade appeal process***

The process for appealing a grade in the radiation therapy program is consistent with the by-laws and process maintained by the Health Professions Department.

When the student questions or disputes a final grade, it is expected that the student and course instructor will informally meet to discuss the situation. The student should come to the meeting prepared to explain why he/she believes the grade does not reflect his/her work and the instructor will explain the reasons for the grade given. The outcome of this informal meeting could be:

- Instructor recognizes an error or accepts student's and changes the grade
- Student acknowledges instructor's rationale for grade and accepts the grade
- Instructor does not change the grade; student does not accept the decision and begins a formal grade appeal.

#### **Instructor**

The request to appeal the grade will be put in writing and addressed to the individual course instructor. The appeal will contain the reason for the grade appeal and supporting materials. Acceptable reasons for appeal are limited to the following:

- Instructor used different grading standards for student work than for other students in the class
- Grading for student was biased, arbitrary, or capricious.

The instructor will acknowledge the appeal was received via e-mail within 1 working day of receipt of the appeal. The instructor will contact the student within 5 working days of receipt of the appeal and schedule a formal meeting with the student. This meeting will be attended by the course instructor, another faculty member or program director, the student, and anyone else the student wishes to bring (if desired). If the course instructor is the program director, another faculty member or department chair will be asked to attend the meeting. The meeting will be recorded by notes and audiotape.

The possible outcomes of this appeal hearing are:

- Instructor accepts student's and changes the grade
- Student acknowledges instructor's rationale for grade and accepts the grade
- Instructor does not change the grade; student does not accept the decision and decides to appeal to the next level.

The outcomes of the appeal will be documented by the course instructor with a copy sent to the student and placed in his/her file.

**Program Director** (optional step: may be skipped if the program director has been involved in the initial appeal hearing with the individual faculty member).

The request to appeal the grade will be put in writing and addressed to the program director. The appeal will contain the reason for the grade appeal and supporting materials. Acceptable reasons for appeal are limited to the following:

- Instructor used different grading standards for student work than for other students in the class
- Grading for student was biased, arbitrary, or capricious.

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The program director will acknowledge the appeal was received via e-mail within 1 working day of receipt of the appeal. The program director will contact the student within 5 working days of receipt of the appeal and schedule a formal meeting with the student. This meeting will be attended by the program director, the student, and anyone else the student wishes to bring (if desired). The meeting will be recorded by notes and audiotape. The program director may seek additional information from the course instructor and /or student before rendering a judgment.

The possible outcomes of this appeal hearing are:

- Support for the instructor and a recommendation that the grade should stand as given.
- Recommendation to instructor to change the grade
- Student accepts the grade and ends the appeal process.
- Student does not accept the grading decision and decides to appeal to the next level.

The outcomes of the appeal will be documented by the program director with a copy sent to the student and placed in his/her file.

#### **Department Chair**

The request to appeal the grade will be put in writing and addressed to the department chair. The appeal will contain the reason for the grade appeal and supporting materials. Acceptable reasons for appeal are limited to the following:

- Instructor used different grading standards for student work than for other students in the class
- Grading for student was biased, arbitrary, or capricious.
- Program director recommended a grade change to the instructor; instructor did not change the grade.

The department chair will acknowledge the appeal was received via e-mail within 1 working day of receipt of the appeal. The program director will contact the student within 5 working days of receipt of the appeal and schedule a formal meeting with the student. This meeting will be attended by the department chair, the student, and anyone else the student wishes to bring (if desired). The meeting will be recorded by notes and audiotape. The department chair will speak to the course instructor after meeting with the student to gather information about the grading. The department chair may also formally seek additional information from the course instructor and /or student before rendering a judgment.

The possible outcomes of this appeal hearing are:

- Support for the instructor and a recommendation that the grade should stand as given.
- Recommendation to instructor to change the grade
- Student accepts the grade and ends appeal process.
- Student does not accept the grading decision and decides to appeal to the next level.

The outcomes of the appeal will be documented by the department chair with a copy sent to the student and placed in his/her file.

#### **Health Professions Department Level**

If the student wished to pursue an appeal, the request for a formal appeal at the Health Professions Department Level must be filed in writing with the department chair. The appeal will contain the reason for the grade appeal and supporting materials. Acceptable reasons for appeal are limited to the following:



- Instructor used different grading standards for student work than for other students in the class
- Grading for student was biased, arbitrary, or capricious.
- Department chair recommended a grade change to the instructor; instructor did not change the grade.

The department chair will acknowledge receipt of the written appeal within 1 working day. The department chair will appoint the five-member ad hoc committee to hear the appeal as indicated in the bylaws:

- Three faculty/staff of the program (whenever possible)
- The instructor
- One faculty/staff from outside of the program

The department chair will appoint one of the committee members (other than the course instructor) to chair the committee. The department chair shall not be a member of this committee but will attend the committee meeting as observer and witness. This appeals committee will meet within 1 week of receipt of the written grade appeal. The committee members will be given copies of the documentation of the previous 3 levels of appeal prior to the appeal hearing.

The appeals hearing will be conducted as follows:

- Student will be given 15 minutes to describe the basis for the appeal and provide supporting documentation to the committee.
- Involved teacher will be given 15 minutes to describe the rationale for the grade and reason for not changing the grade.
- Department chair will be asked to describe involvement in the situation and outcome of actions.
- Student will be excused and committee will deliberate actions.
- The committee may ask for additional information from any of the parties involved. The committee will specify the time frame for supplying the materials. The request for additional materials will be put in writing.
- If additional materials are requested, the committee meeting will be adjourned. The committee will reconvene within one week after deadline for receipt of the requested materials.
- The possible decisions the committee can make are:
  1. Support the appeal and make a recommendation to the course instructor to change the grade.
  2. Deny the appeal and support the grade as given.

The appeals committee chair will communicate the outcome of the appeal hearing in writing to the student, course instructor, and department chair within 5 days of the final committee hearing. A copy of the student written appeal and the response of the committee will be given to the student and placed in the student's permanent record.

## ***Non-Grade Appeal Process***

The Student Academic Non-Grade Appeals process is designed to enable students to initiate and resolve complaints regarding faculty and instructional academic staff behavior. Complaints may be initiated within 90 days of the most recent incident of unprofessional behavior by university faculty and instructional academic staff that impairs students' ability to learn. The Radiation Therapy program will strictly adhere to the UWL Student Life informal and formal procedures.

### **Procedures**

#### **Informal Procedures**

Any student or group of students who has a complaint about faculty or instructional academic staff behavior is encouraged to resolve the complaint informally. Informal attempts may include but are not limited to:

- meeting directly with the faculty member and/or instructional academic staff,
- meeting with the student's advisor,
- meeting with other faculty members and/or instructional academic staff,
- meeting with a departmental complaints committee,
- meeting with the department chair,
- meeting with any combination of such people.

The intention of such meetings is to clarify misunderstandings or miscommunications that may be the source of the complaint. If for any reason these meetings do not resolve the complaint or if the student chooses not to resolve the complaint using the informal procedures, the student(s) may pursue the formal procedures described below.

#### **Formal Procedures**

##### **1. Initiating a Complaint**

If informal procedures are unsuccessful (or within 90 days of the last incident), a student or group of students who wishes to pursue a complaint should inform the Student Life Office, either orally or in writing.

The Student Life Office shall:

- a. provide a statement regarding academic freedom and pertinent sections of the "Statement to Improve Undergraduate Education";
- b. advise the student(s) about the Formal Procedures for Student Academic Non-grade Appeals;
- c. maintain current information on procedures and bodies handling complaints in all academic departments;
- d. instruct the student to initiate the complaint by meeting with the chair of the department to which the faculty or instructional academic staff member is assigned or, if appropriate, with a departmental complaint committee. In the case that the complaint is lodged against the department chair and there is no appropriate committee or group within the department to bring the complaint to, the instructions shall be to meet with the dean of the college in which the department chair is assigned;
- e. assist the student(s) in scheduling the meeting with the department chair or the departmental complaint committee, if one is available, or dean if the complaint is lodged against the department chair and there is no group within the department to receive the complaint; and

- f. serve as an advisor to the student(s), as necessary, throughout the complaint process, keeping a confidential, written record of interactions with the student(s).

## 2. Discovery Stage of the Complaint

In the meeting, the chair or departmental complaint committee (or dean, in the case when the complaint is against a department chair and there is no departmental committee) shall collect information from the student(s) making the complaint and explain all the appropriate procedures and options to complainant. If a complaint is to be pursued, the chair or committee (or dean) who has received a complaint will inform the accused party of the nature of the complaint lodged, concealing the identity of the complainant (if that is desired) and seek approaches to mediation and resolution. Any attempt to penalize or in any way retaliate against a person bringing a complaint is prohibited and will be treated as a separate incident to be reviewed in its own right.

The goal of the discovery state is to clarify misunderstandings and miscommunications and establish what actions (if any) may be legitimate sources of complaint. The wishes of the student(s) making the complaint shall be respected regarding further investigation. A specific complaint shall not be carried forward without the complainant(s)'s explicit written permission and instruction.

If a complaint is resolved at the Discovery stage, no formal record will be retained in the faculty or instructional academic staff personnel file.

## 3. Mediation Stage of the Complaint

This stage will involve:

- a. separate confidential meetings(s) of the department chair or committee (or dean), with the complainant and the person against whom the complaint is filed, or
- b. joint confidential meeting(s) with the complainant and the person against whom the complaint is filed and the department chair or committee (or dean).

The goal of the Mediation Stage is conciliation. When these meetings are completed, the complainant will be asked to decide whether s/he is satisfied with the results or wishes to move to the Hearing stage of the complaint.

If a complaint is resolved at the Mediation stage, no formal record will be retained in the faculty or instructional academic staff personnel file.

## 4. Hearing Stage of the Complaint

If the Mediation Stage does not result in a satisfactory resolution of the problem, then the complainant will be referred to the Executive Director of Human Resources who will assist the complainant in filing a complaint with the Complaints, Grievances, Appeals and Academic Freedom Committee (CGAAF Committee). If the person lodging the allegation wishes to postpone such a confrontation, the CGAAF Committee will set a time-limit which appears reasonable, depending upon the circumstances and reasons given. The formal hearing proceeding may be terminated by mutual agreement of the complainant and the person against whom the complaint is filed at any step. Either party may seek the help of legal counsel at any stage of the hearing.

a. Complaint

The complainant must file a written complaint using the petition form available in each dean's office and in the Student Life Office.

1. The Petition

The petition, once completed by the complainant, shall provide:

- a. the complainant's name;
- b. the respondent's name;
- c. a brief statement of the problem and a detailed list of alleged actions or behaviors that are the basis of the complaint;
- d. additional information such as statements by witnesses and other documentation that supports the complainant's allegations;
- e. a summary of the outcomes of the informal procedures (if pursued) and the formal procedures prior to this point; and
- f. (optionally) a statement of the desired outcome(s) of the hearing.

2. Receipt of Petition and Duties of the Executive Director for Human Resources

The completed petition shall be submitted to the Executive Director for Human Resources. The Executive Director shall review the contents of the petition with the complainant(s). This information shall be forwarded to the chairperson of the CGAAF Committee, who is responsible for scheduling the hearing.

b. Time Lines

The CGAAF Committee shall proceed with the petition using its operating rules for processing and hearing complaints. The rules are available from the Faculty Senate Office, 323 Graff Main Hall and at </FacultySenate/committees/CGAAF/Complaints.htm>

**Reference is the UWL Student life policies on Student Non-Grade Appeals**

**<https://www.uwlax.edu/student-life/student-resources/student-handbook/#tm-policies>**

**C-10 Fairness Policies**

1. The University and the Clinical Internship sites believe strongly in their non-discriminatory policy, that admission and treatment of students in classes, campus life and clinical internship will not be affected by student characteristics of gender, race, color, creed, religion, national origin, disability, ancestry, age, sexual orientation, gender, gender identification, pregnancy, marital or parental status or relationship to employees.
2. The University and its Clinical Affiliates believe in hiring and promoting faculty and employees according to the above non-discriminatory statement.
3. Due process will be followed in any complaints against students in academic or non-academic concerns as detailed in the Student Handbook on the UWL web page.

4. If a student has concerns about the program which are not resolved through the grievance policy and procedures and if he/she feels that the program is not in compliance with JRCERT accreditation standards or feels that quality of instruction or general welfare of students within the program is jeopardized, he/she may submit allegations of non-compliance directly to the JRCERT. Please see the JRCERT policy and allegations reporting form in appendix 1 of this handbook. The program will keep records of any complaints of this nature for review in regard to accreditation and quality audit.
5. A student's behavior in the clinical setting must conform to policies and rules established by the affiliated institution. Failure to conform may result in probation, or dismissal from that site. The Advisory Committee and Program Officials will be consulted to protect the student and the institution's interests as much as possible.
6. Number of students selected into the major will be limited by the number of clinical internship positions available for the upcoming senior year. It will be done following a successful interview process with the clinical internship sites. An offer of placement from one of the clinical internship sites will be given to each student.
7. Program Officials will make every effort to assure that activities assigned to students in academic and clinical courses will be for valid educational purposes.

#### **C-11 Policy Regarding Records and Release of Information**

1. The release of information to and about students is in conformance with the Family Education Rights and Privacy Act, as amended in 1975.
2. A formal record of each student's grades is maintained. A student will be shown his/her internship record at the quarterly evaluation sessions which the Clinical Supervisor schedules. A student may also inspect his/her records upon making an appointment with the Clinical Supervisor at other times.
3. Student records are securely kept by the Education Director/Clinical Supervisor and on the student record management system, Trajecsys. Records will also be maintained under strict security by University of Wisconsin-La Crosse in perpetuity.
4. Any information regarding the student's academic or clinical performance is confidential. Authorization for release of any information must be made in writing by the student or graduate to the Records and Registration office. Clinical internship records must be requested from the internship site.
5. Government officials or officials of the school's accrediting bodies may have access to the student records for the purpose of official business upon presentation of identification and statement of the purpose of viewing the records.
6. Upon completion of the program a student may request a copy of his/her grade transcript. This copy will be marked "personal copy".

**Exam Return Policy**

1. All exams given in conjunction with the radiation therapy program may not be kept by students after grading.
2. Students may view the document to note concepts that were missed or not understood.
3. This viewing should be completed during class or under the supervision of a program official.
4. Graded exams must then be returned to program officials.
5. Students are not allowed to keep exams in their possession.
6. If the exam is given on Canvas, students are not allowed to print off completed exams and keep in their possession. Exams may be reviewed at the discretion of the instructor of the course.
7. Respondus Lockdown browser is required for all exams given on Canvas.

**C-12 Personal Student Use of Social Networking Sites**

The University of Wisconsin-La Crosse Radiation Therapy Program recognizes that social networking websites and applications, including but not limited to Facebook, Instagram, Snapchat, Twitter, Tik-Tok and blogs, are an important and timely means of communication. Students, faculty and staff are reminded that they should have no expectation of privacy on social networking sites. Students, faculty and staff must also be aware that posting certain information is illegal. Violation may expose the offender to criminal and civil liability. Offenses may be considered non-academic misconduct and be subject to the appropriate policies and procedures.

The following actions are strictly forbidden:

- In your professional role as a caregiver, you may not present the personal health information of other individuals. Removal of an individual's name does not constitute proper de-identification of protected health information. Inclusion of data such as age, gender, race, diagnosis, date of evaluation, or type of treatment or the use of a highly specific medical photograph (such as a photograph of a patient undergoing Radiation Therapy or a photograph of a patient treatment plan) may still allow the reader to recognize the identity of a specific individual.
- You may not report private (protected) academic information of another student or trainee. Such information might include, but is not limited to: course grades, narrative evaluations, examination scores, or adverse academic actions.
- In posting information on social networking sites, you may not present yourself as an official representative or spokesperson for the University of Wisconsin-La Crosse Radiation Therapy Program or affiliate organizations.
- You may not represent yourself as another person, real or fictitious, or otherwise attempt to obscure your identity as a means to circumvent the prohibitions listed above and below.

In addition to the absolute prohibitions listed above, the actions listed below are strongly discouraged. Violations of these suggested guidelines may be considered unprofessional behavior and may be the basis for disciplinary action.

- Display of vulgar language or slanderous behavior towards others.
- Display of language or photographs that imply disrespect for any individual or group because of age, race, gender, ethnicity or sexual orientation.

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- Presentation of personal photographs or photographs of others that may reasonably be interpreted as condoning irresponsible use of alcohol, substance abuse or sexual promiscuity.
- Presentation of personal engagement in illegal activities including use of recreational drugs.
- Posting of potentially inflammatory or unflattering material on another individual's website, e.g. on the "wall" of that individual's Facebook site.

When using these social networking websites/applications, students are strongly encouraged to use a personal e-mail address, rather than their UWL email address, as their primary means of identification. Individuals also should make every effort to present themselves in a mature, responsible, and professional manner. Discourse should always be civil and respectful.

#### **Student Organization Use of Social Networking Sites**

Registered student organizations that use social networking sites are required to include their advisor and/or the Director of Student Affairs for continuity purposes. Student organizations are not to represent themselves as official representatives or spokespersons for the University of Wisconsin La Crosse or affiliate organizations and are subject to the university's identity standards. Violation of this policy may be considered nonacademic misconduct in addition to the student organization losing their official registration status with the university.

\*This policy was adapted with permission from the University of Kansas Medical Center for use in UW La Crosse Health Professions Programs.

#### **C-13 Health and Safety Policies**

The University of Wisconsin La Crosse program in Radiation Therapy is interested in promoting good health for students, instructors and patients. The following policies have been developed to attain that goal. For sickness, students are asked to refer to the below ["Too sick for clinicals"](#) policy when determining if they should report to their internship site.

1. Student health service is available for students on campus who meet requirements and pay the segregated fee at registration and students at the Gundersen internship site. Students who are in their clinical internship will be distant from the Health Center and are encouraged to carry health insurance to cover medical expenses while in Milwaukee, Chicago, Madison, Marshfield, Wausau or Park Ridge.
2. All applicants are apprised of the "Essential Functions of a Radiation Therapist". They are to consider whether the functions of the position of radiation therapist and radiation therapy student are within their abilities, with or without accommodation.
3. If it is determined that the student requires reasonable accommodation to perform the "Essential Functions", the clinical internship site and the University will make every effort to provide such accommodation. Students are encouraged to seek out accommodations at first knowledge of its need.
4. Students beginning their clinical internship may receive a health screening exam within the first month at their internship site or the site may request that screening be done prior to attendance. Typically included are: various titers if not previously done at the University, required immunizations and TB testing.

5. Should a student become injured during the clinical portion of training, he/she may be permitted to be treated on an emergency basis at the clinical site, with expenses billed to his/her insurance carrier. A University of Wisconsin system incident report must be submitted.
6. In orientation to the clinical internship students will be made aware of precautions to be taken in caring for patients. Universal precautions/standard precaution measures are to be strictly adhered to for safety of students, staff and patients.
7. If a student appears to need professional medical attention due to an issue with their ability and safety, the clinical supervisor/educator shall strongly recommend or require the student to seek medical attention.
8. If a student should be exposed to patient body fluid by a needle stick, OSHA recommendations will be followed and the student will be seen by hospital personnel. A University of Wisconsin system incident report must be submitted.
9. **Policy on reporting of communicable diseases**  
 In the interest of protecting radiotherapy patients from exposure to communicable disease, the University of Wisconsin La Crosse and its clinical affiliate hospitals request that students contracting such diseases inform the clinical supervisor. Upon such notification, the program officials will advise the student on the appropriate steps to take to avoid patient exposure. Such steps may include counseling on proper hand washing technique, the wearing of a mask or physical absence from the treatment room when immune-compromised patients are treated. All such information given by students to program officials will be held in strict confidence and will not be used against the student.
10. If the student is exposed to a communicable disease at the clinical education site, for example by a needle stick, he/she must report the exposure to the Clinical Supervisor who will inform the Program Director and Medical Advisor. The student will be sent to Employee Health for evaluation and/or treatment. A University of Wisconsin system incident report must be submitted.
11. In orientation to the clinical internship, students will be educated in regard to hazardous materials used at the affiliate site. MSDS sheets for commonly used materials will be shared. Students are expected to use safe handling procedures as they are taught.

**C-14 University of Wisconsin – La Crosse Radiation Therapy Program Sickness Policy**

Interns are required to follow the below requirements regarding sickness. If an intern presents with the following conditions, it is the educational directors discretion to send the intern home or accept the intern into the clinical setting based on the below examples. The intern will have to take vacation time for his/her absence.

<u>General Illnesses</u>	<u>Too Sick for Clinicals</u>
Fever	· No clinicals or patient care until fever is gone.
<u>Skin Conditions</u>	<u>Too Sick for Clinicals</u>
Hand dermatitis	· Skin is cracked and bleeding at any time prior to, during or after work shift.
Open wounds	· Wound is located on the hands or face and is draining or not healed over, and duties involve patient contact. · Wound is located under clothing but dressings are saturated by the end of the shift and duties involve patient contact.



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Rash	<ul style="list-style-type: none"> <li>· Generalized rash with an unknown cause.</li> <li>· Small blisters located on hands and face or a large area on body trunk.</li> <li>· Rash appears like tiny broken blood vessels or bruises with mild fever.</li> <li>· Rash has spots or pimples and is accompanied by a fever.</li> </ul>
Herpes simplex (cold sores)	<ul style="list-style-type: none"> <li>· Lesion is located on hands.</li> <li>· Lesions are open and draining.</li> <li>· Lesions are located on face and duties include patient contact in high risk areas.</li> </ul>
Burns	<ul style="list-style-type: none"> <li>· Burn is located on the face or hands and area is weeping or blistered.</li> </ul>
Pediculosis (lice)	<ul style="list-style-type: none"> <li>· No work until confirmed that transmission is not possible following appropriate treatment.</li> </ul>
Impetigo	<ul style="list-style-type: none"> <li>· No work until medical treatment started.</li> <li>· No skin to skin contact until resolved.</li> </ul>
Conjunctivitis	<ul style="list-style-type: none"> <li>· Excessive tearing with discharge, sensitivity to light, itching, redness, or swelling.</li> <li>· No work until discharge/drainage ceases.</li> </ul>
<b><u>Upper Respiratory Symptoms</u></b>	<b><u>Too Sick for Clinicals</u></b>
Cough	<ul style="list-style-type: none"> <li>· Accompanied by a fever.</li> <li>· Has a &gt;2 week duration and accompanied by night sweats, fever, weight loss, hemoptysis or a positive PPD (tuberculosis test).</li> <li>· Severe or persistent coughing spells.</li> </ul>
Sore throat	<ul style="list-style-type: none"> <li>· Accompanied by fever, white spots on tonsils, swollen glands or skin rash.</li> </ul>
Strep throat	<ul style="list-style-type: none"> <li>· Following a positive throat culture, need 24 hours of medication and feeling better clinically.</li> </ul>
Nasal congestion	<ul style="list-style-type: none"> <li>· Nasal secretions are so persistent that hands can not be washed after each tissue use.</li> <li>· Accompanied by a fever, sinus pain and colored discharge.</li> </ul>
Diphtheria	<ul style="list-style-type: none"> <li>· No work until antimicrobial therapy completed and two cultures at least 24 hours apart are negative.</li> </ul>
Influenza	<ul style="list-style-type: none"> <li>· Combination of muscle aches, sore throat, cough, mild cough, runny nose, headache, light sensitivity or intestinal symptoms.</li> </ul>
COVID-19	<ul style="list-style-type: none"> <li>• Students should follow current university policies if on campus and hospitals policies when at clinicals for guidance on testing and staying home.</li> </ul>
Upper Respiratory Infection	<ul style="list-style-type: none"> <li>· Requires staying home until symptoms are resolved to prevent spread of disease to immunocompromised patients.</li> </ul>
Pertussis (Whooping Cough)	<ul style="list-style-type: none"> <li>· Requires staying home and being on medication for 24-48 hours.</li> <li>· May return to clinical assignment with medical permission.</li> </ul>

<u>Gastrointestinal Symptoms</u>	<u>Too Sick for Clinicals</u>
Nausea	<ul style="list-style-type: none"> <li>· Present with yellowing of the skin or eyes.</li> <li>· Accompanied with other general complaints (e.g. headache, fever, fatigue or yellowing of skin)</li> </ul>
Vomiting	<ul style="list-style-type: none"> <li>· Difficulty maintaining hygiene practices or sanitary conditions.</li> <li>· Accompanied by other intestinal symptoms (e.g. increase flatus, nausea, vomiting or other unusual stool characteristics).</li> </ul>
Diarrhea	<ul style="list-style-type: none"> <li>· Difficulty in maintaining hygiene practices or sanitary conditions.</li> <li>· An increased number of bowel movements with an acute onset due to an unknown cause (3 loose stools in 24 hour time period).</li> <li>· Accompanied by a fever, headache, or fatigue.</li> <li>· Accompanied by other intestinal symptoms.</li> </ul>
Convalescent Salmonella	<ul style="list-style-type: none"> <li>· No work with high risk, immunocompromised patients until documentation of 2 consecutive negative stool cultures, 24 hours apart.</li> </ul>

- If an intern is on narcotic prescription drugs, the intern will not be allowed to participate in clinical activities due to the potential side effects and altered mental status.
- The return to work protocol and other illness related clinical situations to follow hospital policy of the internship site.

**C-15 Radiation Safety**

- Orientation to the clinical internship will include review of radiation safety measures.
- Students will be provided a radiation dosimeter by the instructors of UWL courses with radiation labs and by the clinical affiliates, which they will wear at all times while in the controlled area.
- Students, staff and visitors are not allowed in treatment rooms during the treatment.
- If the student is in the simulator or High-Dose Rate Afterloader room during fluoroscopy, he/she will wear a lead apron.
- Reports may be available per student request from the radiation safety officer.
- Students will be given counseling regarding radiation safety practices as necessary.
- The program threshold dose limit for incidents of exposure is 125-250 mrem. If such dose is reached and/or exceeded, investigation will be conducted by program officials and the appropriate radiation safety officer. On site radiation safety officer is required to notify program officials of such exposure.

**C-16 Policy on student pregnancy**

Students should understand that a pregnancy during the two years of the professional portion of the Radiation Therapy major may have an impact on their education and possibly upon the timing of graduation. Two important factors are involved.

- Courses are only offered once each year and time missed for pregnancy and/or delivery will likely necessitate make up work or perhaps delay of up to a year to maintain the proper sequence of courses, depending on the timing and amount of time missed.
- There are potential risks to an embryo or fetus secondary to radiation exposure that may require counseling and alteration of the clinical education experience.

*The following policy has been developed to guide the program and its students in the event of a student pregnancy.*

1. The U. S. Nuclear Regulatory Commission Regulatory Guide 8.13 regarding “Possible Health Risks to Children of Women Who are Exposed to Radiation During Pregnancy” can be found in Appendix A.
2. All students will be made aware of risks and hazards of prenatal radiation exposure during coursework at UW-L and upon orientation to the clinical internship.
3. A student who is pregnant, or suspects that she may be, has the option to voluntarily declare that condition to program officials.
  - a. If the student decides to declare the pregnancy it shall be done in writing to the Program Director while on campus and/or the Education Director of her internship site if in the internship portion of the program. The notification shall also include the expected date of delivery.
  - b. A student may “undeclare” her pregnancy at any time. The student should submit a written withdrawal of declaration of her pregnancy status. This should also be submitted to the Program Director while on campus and/or Education Director/Clinical Supervisor if attending internship.
  - c. The program will comply with student confidentiality requests as per FERPA regulations
4. If a student declares a pregnancy, a counseling session will be set up with the radiation safety officer at the University and/or the student’s clinical internship site to review radiation exposure risks and any additional monitoring practices which may be initiated.
5. A declared pregnant student may choose one of the options below (or may choose to change to a different option at a later time if desired, with written notice):
  - a. She may take a leave of absence from the program. (See policy for leave of absence.) Should the declared pregnant student decide to leave the program during pregnancy and delivery, tuition will be refunded according to the Tuition Refund Policy. In this circumstance the student would be readmitted to the program at the first available opening after delivery.
  - b. She may stay in the program, but make modifications in her clinical rotation schedules to reduce the chance of exposure to the fetus. She will not participate in site specific rotations during the time of the pregnancy as recommended by the Radiation Safety Officer of the site. Competency and experience in all required areas will be made up following delivery. This could delay graduation beyond the originally expected date.
  - c. She may decide to stay in the program and/or internship during pregnancy and continue the program without modification of learning activities or clinical rotations. If she decides to do this, she does so in full knowledge of the potential hazard of embryo/fetal radiation exposure. If a student selects this option, it is recommended that she consult her personal physician in this regard. She must indicate in writing her intention to continue with the program without modification. A copy of documentation of this decision will be kept in the student’s file.

6. Pregnancy and/or delivery related time away from school during the junior year on campus will require make up of any coursework missed prior to beginning the internship, consistent with the leave of absence policy of the major.
7. If delivery occurs during clinical internship, all course work and clinical time must be completed before the student is eligible for graduation and to apply to take the ARRT certification examination.

### **C-17 Drug use and testing policy**

Students should be aware that prior to the start of clinical internship and/or randomly during clinical internship, clinical affiliate sites reserve the right to administer drug testing. While marijuana and associated substances (edibles, THC containing products) may be legal in some states, it is still considered to be illegal at a federal level as it is a class 1 drug. Marijuana and associated substances use are also considered to be highly inappropriate by radiation therapy professionals. Since clinical affiliates receive federal funding from Medicare and Medicaid, they must adhere to federal laws regarding marijuana use by their employees and students. Therefore, recreational, and even medicinal marijuana and/or associated substances use is not acceptable by such institutions. Testing positive for marijuana use or self-disclosure of such use may result in the clinical site rescinding their offer to for clinical internship placement as well as dismissal from the program.

## **Section D- Clinical Internship**

### **D-1 The Clinical Internship Experience**

All of the clinical internship sites affiliated with the Radiation Therapy program are state of the art regional cancer centers. Each affiliated clinical internship site employs an Education Director/Clinical Supervisor who is an Adjunct Faculty member to UW-La Crosse. Courses are taught either online or in a face to face setting. The same curriculum is taught at each site as mandated by the ASRT and the Advisory Committee of the Radiation Therapy Program. Course information is centralized on Canvas, including content, quizzes, discussions, and exams. While each internship site differs in terms of technologies used for delivery of radiation therapy, as well as department size, the relative pace of patient flow is consistent between all sites. Each site provides care for a wide variety of patient populations including geriatric and pediatric, and there are fluctuations in patient volume from time to time.

Advocate Aurora Health- Lutheran General Hospital  
Park Ridge, IL



**About the Facility:**

- Varian IX and TrueBeam machines with OBI, OSMS, Rapid Arc capabilities, DIBH, and VMAT
- Tomotherapy, Cyberknife, GE 16 Slice CT Simulator
- Three dimensional treatment planning
- Intensity modulated radiation therapy
- High Dose rate brachytherapy
- Hypofractionation for breast cancer treatment
- Grid Therapy, Total Body Irradiation
- Pediatric and Adult populations
- 2-3 Physicians/Day
- 7 Full time and 1 Part time therapist
- treat 35-50 patients per day
- We do not have opportunities for students to work during their internship
- We treat in a somewhat relaxed atmosphere; we give the students the opportunity to have as much “hands on” as they are comfortable with.

**Education Director:** Jim Bauml MHA, RT(R)(T)

- Graduated from the Michael Reese/University of Chicago Radiation Therapy School
- Bachelors in Health Arts from the University of St. Francis
- Master’s Degree in Health Services Administration from National Louis University
- Contact Information
  - Email: [james.bauml@aah.org](mailto:james.bauml@aah.org)
  - Phone: (847)723-8254
- Fun fact: Pitched a no hitter in little league

**Education information:**

- Classes are held Tuesday –Thursday; but will reschedule based on clinic
- Machine rotations are divided equally
- Students receive copies of all my material. The content is discussed and applied clinically. I have a “laid back” teaching style.
- There are conference rooms available to students as well as multiple work stations.



Columbia St. Mary's hospital is part of Ascension Health, which is the largest non-profit health system in the United States and the world's largest Catholic health system. Our mission is to commit ourselves to serving all persons with special attention to those who are poor and vulnerable. Our Catholic health ministry is dedicated to spiritually centered, holistic care which sustains and improves the health of individuals and communities.

Ascension Columbia St. Mary's – Milwaukee is identified as a tertiary center of excellence for the South Region of Ascension Wisconsin. In March 2017, Ascension CSM – Milwaukee began the transition to create the most effective and efficient system of care.

As a tertiary care center, Ascension CSM – Milwaukee will treat a greater number of acute cases and focus on higher levels of care. Ascension CSM – Milwaukee will become the regional referral center, receiving patients from other Ascension Wisconsin hospitals because of our expertise and the level of care we offer.

Our Cancer Center overlooks Lake Michigan and is located on Milwaukee's east side. In addition to our Milwaukee campus, there is a Cancer Center at our Ozaukee Campus. The Radiation Oncology Department takes pride in its cutting-edge technology combined with a highly integrated support component for patients. Major equipment and treatment programs include:

**Milwaukee Campus:**

- Varian Truebeam Linear Accelerator with Rapid Arc and Align RT Optical Surface Monitoring System
- Varian Trilogy Linear Accelerator with portal imaging and Align RT Optical Surface Monitoring System
- KV imaging and Cone Beam CT
- Siemens SOMATOM Confidence (20 slice) CT scanner with Syngo.via RT Image Suite Software
- GE CT Scanner and GE Advantage Workstation 9.0
- Respiratory Gated 4DCT
- Aria Record & Verify System
- CT/PET Scanner
- Elekta Flexitron MicroSelectron v3 High Dose Rate Afterloader: Brachytherapy for GYN
- Varian Eclipse 3-D Treatment Planning System
- Stereotactic Radiosurgery, Head and Body

**Ozaukee Campus:**

- Varian Truebeam Linear Accelerator with Rapid Arc and Align RT Optical Surface Monitoring System
- KV Imaging and Cone Beam CT
- Siemens SOMATOM Confidence (64 slice) CT scanner with Syngo.via RT Image Suite Software
- ANZAI 4DCT Respiratory Gating
- Aria Record & Verify System
- Varian Eclipse 3-D Treatment Planning System
- Stereotactic Body Radiation Therapy

**Overall:**

- Diverse, fast-paced environment
- 9 Radiation Therapists, 2 Radiation Oncologists, 2 Physicians Assistants, 3 Medical Physicists, 2 Medical Dosimetrists
- Treat between 25-40 patients a day
- No job available for students at CSM for internship.
- Type of learning environment: Medium sized clinic with a fast paced environment on the treatment machines. Our RTT's have high expectations and are very vested in the education of our interns. RTT's take extra time with interns to review clinical concepts as needed. The interns are expected to be independent and be an active participant in their own education.

**Clinical Supervisor:** Erin Wocken B.S RT(T)

- Education: BS University of Wisconsin La Crosse (2010 Grad)
- Contact Information:
- Email: [Erin.Wocken@ascension.org](mailto:Erin.Wocken@ascension.org)
- Phone: 414-585-1961
- Fun fact about Erin: I have three kids all born within 3 days of each other.

**Education information**

- All course work will be taught at Froedtert Hospital which is approximately 20 minutes away.
- Classes are/or usually Mondays, Tuesday, or Friday (depends on semester)
- The interns will go to Breast Cancer Conference every Wednesday morning.
- Typical rotation on treatment machines: 3-4 weeks at each area, 2 different areas. This allows for our interns to get a great deal of experience in the CT sim.
- Clinic hours for students are 7:30-4:00pm.

Study areas will be provided.



#### About the Facility:

Wausau, Wisconsin is located in the lovely Wisconsin River valley at the center of the state. We have an area population of 40,000 with excellent schools, busy performing arts center, large private music conservatory, and a visual art center. Quiet residential neighborhoods surround Lake Wausau and overlook the Wisconsin River or have views of Rib Mountain State Park. A normal commute is ten minutes to any part of town. We enjoy four seasons of recreation including all water sports, sailing, kayaking, mountain biking, hiking, soccer, down-hill and cross-country skiing. We are conveniently located three hours from Milwaukee and Minneapolis.

Aspirus Healthcare system has been named by IBM Watson Health as a Top 15 Health System for three consecutive years in a row as of 2020. The Aspirus Regional Cancer Center is the area's premier cancer and blood disorder treatment provider, offering a full range of advanced diagnostic and treatment technologies. Aspirus Regional Cancer Center has been placed among the top 28% of cancer programs in the nation by the Commission on Cancer of the American College of Surgeons. In addition to our Wausau campus, there are also affiliated cancer centers located in Antigo, Wisconsin Rapids, Stevens Point, and Rhinelander. Aspirus will also be home to the Varian Edge radiosurgery system as of the Spring 2021, which will be the first of its kind in Wisconsin. The Edge is a high precision radiosurgery system that provides a non-invasive alternative to traditional surgery through the use of high intensity beams.

#### Our staff includes:

- 2 Radiation Oncologists
- 3 Medical Physicists
- 4 Certified Medical Dosimetrists
- 10+ Radiation Therapists
- 1 Radiation Therapist Supervisor
- 1 Educational Director
- Other support staff including: nursing, LPN, dietary, social workers, research, financial counselors, prior auth specialists, nurse navigator, a survivorship clinician and pharmacists

#### Our Equipment includes:

- Varian TrueBeam Linear Accelerator
- RPM gating
- OSMS (Optical Surface Monitoring System)
- IDENTIFY Varian SGRT system
- KV/MV capabilities
- Cone Beam CT
- Fiducial tracking for SBRT prostates and abdomens



#### Radiation Therapy Program Student Handbook

- ARIA record and Verify System
- Varian PerfectPitch 6 degrees of freedom couch
- Varian Edge radiosurgery system
- Siemen's Somatom Confidence CT Scanner
- Varian Eclipse Treatment Planning System
- Nucletron High Dose Rate Afterloader brachytherapy for GYN

#### Overall:

- Treat approximately 35-50 patients per day including 3D, IMRT, SRS, FSRT, VMAT, SBRT treatment techniques
- Operating hours between 8:00 am-5:00 pm, but varies based on patient load
- No job available for students at Aspirus Regional Cancer Center internship at this time
- Fast paced, medium-sized facility focusing on giving students ample hands-on learning experience within a positive work environment
- Opportunities for students to be a part of cutting edge, highly advanced treatment procedures

#### Educational Director:

- Clinical Contact
  - Victoria Heitman BSRT(T), Educational Director
- Education:
  - Bachelor of Science Degree from UW-La Crosse for Radiation Therapy
  - Class of 2013 UW-La Crosse graduate
  - Minored in Spanish
  - Has worked as a radiation therapist for Aspirus for 9 years.
  - Fun fact about me: I am expecting my first child in June of 2022- a baby girl!
- Contact Information:
  - (715)-847-2000 ext. 52893 or (715)-847-2000 ext. 52259
  - [victoria.heitman@aspirus.org](mailto:victoria.heitman@aspirus.org)

#### Education Information:

- Course work taught on site within the clinic by educational director and other staff members
- Various study locations open to students within the clinic
- Class times will be flexible depending on staffing and treatment schedules.
- Students will rotate throughout both treatment machines, CT simulator, and other departments
- Access to numerous workspaces and printers
- Ample one on one time with education director



Froedtert & the Medical College of Wisconsin Clinical Cancer Center is one of the most innovative cancer treatment facilities in the region and has been long regarded as a top quality radiation therapy provider. It is fast gaining national attention for the work its physicians continue to perform each year in significant cancer research and other advancements. The core mission of the Department of Radiation Oncology is its deep commitment to the education of future generations of all radiation oncology professionals; while focusing on patient care. Additionally, the cancer center is accredited by the American Society for Radiation Oncology's Accreditation Program for Excellence (APEX).

**About the Facility: We are an Academic Cancer Center**

730 – 1600, with rotating call, varied start times, 8-hour shifts  
 20+ Therapists  
 20 Radiation Oncologists and 8 Radiation Oncology residents  
 16 Physicists, plus 4 physics residents, plus 8 physics postdocs  
 4 Nurses, 1 PA, 4 NP's along with Supportive Staff

**Equipment & Procedures:**

- 2 Dual Energy Siemens Artiste w/ Align RT (by Vision RT), 1 Elekta Versa HD, and 1 Elekta Infinity Linear Accelerators; all with 3D imaging, cone beam, CT on rails, IMRT, IGRT, Gating techniques and/or portal imaging
- Accuray Radixact (Tomotherapy) w/Synchrony
- Elekta Unity (MRI/Linac)
- Elekta Flexitron HDR brachytherapy, Eye plaque brachytherapy & Prostate seed implants
- Stereotactic Radiation, Ra 223 and Samarium treatments
- Siemens Somatom Drive CT Simulator and Magnetom MRI Simulator
- Sensus Supervoltage x-ray unit
- Total Body Irradiation, Total Skin, Heterotopic Bone, Prone Breast
- Elekta Leksell Gamma Knife Icon Stereotactic Radiosurgery unit
- Adult/Pediatric Radiation
- Total Body Irradiation, Total skin, Heterotopic bone, Prone breast-DELETE THIS MELISSA
- Research Protocols

\*Treatment Average: 25-30/day/machine

**Education information:**

- Classes are/or usually Mondays and/or Tuesday (depends on semester)
- Clinical rotations are at Froedtert, Community Memorial Hospital & the VA Hospital
- Study areas are the Radiation Oncology conference room (when available), several small conference rooms within the Clinical Cancer Center and the Jetson chairs.

\*Will be hired on as an FMLH employee as a Radiation Therapy Assistant. Work will be before your clinical hours. Hours vary ~3-10 hours per pay period.

**Education Director: Karen J Mannisto BS, RT(R)(T)**

- Education: Certification in Radiology and Radiation Therapy
- Received by BS in Allied Health from the College of St. Francis
- Teaching Philosophy: In the classroom, powerpoints are used for most classes. I do try to get outside speakers, depending on the topic. It is expected that you come to class prepared as most classes have suggested readings or assignments prior to attending class.
- Personal Fact: I love Cavalier King Charles Spaniels, Christian Rock/Pop music, and Sushi! 😊
- Contact Information:
  - Email: [Karen.Mannisto@froedtert.com](mailto:Karen.Mannisto@froedtert.com)
  - Phone: 414-805-4495

**Gundersen Health System-**  
**La Crosse, WI**



**About the Facility:**

- Three Varian Linear Accelerators (6 Mv-18 Mv) with multi-leaf collimation, OBI, robotic couch
- ARIA record and verify systems
- Advanced Imaging and FFF (flattening filter free) features
- Image guided radiation therapy using BrainLab's Exactrac imaging system
- Image guided radiation therapy using Varian's Cone Beam CT and kV/MV imaging
- Linac-based SBRT & SRS
- Respiratory gating with RPM gating system
- Siemens PRO & GE Lightspeed RT 16 Slice Scanner
- Eclipse and MIM planning systems
- IMRT & 3D treatment techniques
- High dose rate brachytherapy
- Primarily adult populations
- 15 Radiation Therapists, 4 Radiation Oncologists, 4 Medical Physicists, 4 Medical Dosimetrists
- Treat about 75 patients per day
- No job available for students at Gundersen for internship.
- Type of learning environment: Fast paced environment on treatment machines with a variety of setups daily. Therapists are encouraged to set the bar high and push interns to their full potential. Great team to work with and extremely knowledgeable to go to for any questions. Other health professionals in the department very willing to teach as well, including the physicians whom are very approachable.

**Clinical Supervisor, Lead Radiation Therapist, Daina Drath BS, RT(T):**

- Education: BS from University of Wisconsin La Crosse (2012 Grad)
- Contact Information:
  - Email: [dmdrath@gundersenhealth.org](mailto:dmdrath@gundersenhealth.org)
  - Phone: 608-775-2158
  - Fun fact about me: I absolutely love the outdoors! Running, fishing, riding horse, and hiking the bluffs with my 3 kids are my happy place! A mix of my little family and fresh air saves my soul 😊.

**Education information:**

- In the fall and spring semesters, the majority of the course work will be taught online and the students will be given approximately 8 hours per week to complete. One course will be taught at the hospital by the physics and dosimetry staff each semester as well. In the summer sessions, 3-4 hours will be granted as course work time.
- Typical rotation on treatment machines: 6 weeks at each area, 3 different areas
- Can study at GHS library or each student has own cubical with computer access

Marshfield Clinic Health System  
Marshfield, WI



Marshfield Clinic  
HEALTH SYSTEM

**About the Facility**

- Marshfield Clinic Health System is a rural academic and research health system with over 80 medical specialties. There are approximately 800 physicians that provide care over 50 locations throughout Wisconsin. Marshfield Clinic is the largest private group medical practice in Wisconsin.
- One of four children's hospitals in the state of WI, the only one in Northern WI
- At the Marshfield Center:
  - Pediatric and Adult populations
  - Inpatients
  - Varian TrueBeam with Advanced Imaging and FFF Features, Rapid Arc technology
  - Varian PerfectPitch 6 degrees of freedom couch
  - Vision RT
    - Deep Inspiration Breath Hold
    - Respiratory Gating
  - Stereotactic Body Radiotherapy
  - Eye plaque Brachytherapy
  - High Dose Rate Brachytherapy
  - Space OER for prostate patients
  - Aria Record and Verify
  - Pinnacle planning system
  - Philips Big bore CTs
  - Perfexion Gamma Knife

## Radiation Therapy Program Student Handbook

- Staff:
  - o 4 Radiation Therapists, 1 Radiation Oncologist, 1 Medical Physicist, Remote Dosimetrists, 2 nurses, 1 MA
- Treat about 20-25 patients a day
- Therapists take call
- Rotate to Marshfield Clinic-Stevens Point or Marshfield Clinic- Eau Claire Centers

### Education information

- Educational department located within the Clinic
  - o Library and study spots open to students, badge access 24/7
  - o Desktop computers and copier/printer for student use
  - o Laptop rental
- Class times will be somewhat flexible depending on staffing and treatment schedules.
- Students will need to be flexible and take an active role in their clinical education.

### Educational Director: Mindy Kren BS, RT(T)

- Education: BS from University of Wisconsin La Crosse (2011 Grad)
- Contact info
  - o Email: [Kren.mindy@marshfieldclinic.org](mailto:Kren.mindy@marshfieldclinic.org)
  - o Phone: Rad. Onc Front desk (715) 389-3339
- Fun Fact about Me: I am a big Taylor Swift fan! I've seen her in concert many times and even met her and got her autograph.

University of Wisconsin Hospitals and Clinics  
Madison, WI



### About the Facility:

- # of and description of treatment machines
  - o At the main campus, we have 2 Linear Accelerators (Varian TrueBeam machines), 2 Tomotherapy machines and a ViewRay treatment machine. Our East Clinic department has one linear accelerator (Varian TrueBeam), which is identical to those at the main campus. All of our linear accelerators have comprehensive IGRT capabilities, respiratory gating, and surface tracking. We offer several special procedures, including Stereotactic Radiosurgery, Stereotactic Body Radiosurgery, Fractionated Stereotactic Radiation Therapy, Pulsed-Reduced Dose Rate Radiation Therapy, IMRT, IGRT (on tomotherapy and using cone-beam CT), TBI and many different types of brachytherapy procedures.
  - o We have a Siemens wide-bore CT scanner for simulation. There is a portable CT scanner in the brachytherapy suite for those procedures.
  - o A diagnostic MRI machine is also in the department and used for diagnostic and simulation procedures.
  - o We use electronic charting for all aspects of clinic and treatment.

- # of physicians, therapists, average # of patients treated per day
  - We have 12 physicians and 8 residents. Each of our physicians have their own specialties and many are considered experts in their fields. A lot of our patients are on clinical trials because of this. Our residents teach all of our cancer lectures and also help teach the students while they are in their dosimetry rotation. Everything we do has a teaching component to it.
  - We have 24 therapists. The therapists rotate every six months- year, so there is consistency amongst the staff members on the treatment machines from day to day.
  - We treat around 100 patients each day on the five machines. We treat patients from 7:30 – 6 each day, so we have an early and late shift of therapists.
- Job for students' availability
  - We currently offer limited hours for work in our department, just two hours every three weeks for stocking. However, this does put you in the system so it you can receive employee perks (bus passes, library use, etc), but do not offer many hours. It is also a great way to show the therapists your work ethic!
  - As a UW System student, you are eligible for many student positions within UW Madison and elsewhere in the hospital. There is a website for these jobs, as well as others outside the system that students have used to find jobs in the past. It's a great service because most of the positions are flexible since they are looking for student help.
- Type of learning environment
  - This is a large, teaching hospital. In addition to residents and radiation therapy students, we also have medical students, physics students and residents, and many many more. Our philosophy is to jump right in and go! We let everyone go at their own pace, but encourage students to do things as they are comfortable. But don't worry- the therapists are always right at your side and won't let you do anything wrong. In the beginning, we try to have labs on the machines. Once you are in the swing of things, we leave it up to you but encourage you to take an active role in the clinical process.

Education Director: Amy Heath MS, RT(T)

- Education
  - MS in Clinical Leadership from George Washington University
  - BS in Radiation Therapy from UWL.
- Contact Information
  - Email: [ah Heath@uwhealth.org](mailto:ah Heath@uwhealth.org)
  - Phone: 608-263-8517
- Teaching Philosophy (Style)
  - I work Monday – Thursday and try to keep organized but am flexible. I am always willing to try new things. I like to take advantage of working in a teaching hospital and try to get as many outside lecturers and tours as I can. I like to link what we are doing in class to the patients we are treating in clinic. While I'm not working on the treatment machines, you'll see a lot of me throughout the week.
- Personal Fact
  - I love to garden, camp and spend time outside.

Education information:

- Days and times of class
  - We typically have one full day of class and one-half day of class midweek. We also go to chart rounds every Thursday and Cancer Grand Rounds as applicable. This cuts down on the driving back and forth from the hospital to East Clinic if you are on that rotation. Students often ride the bus to and from the hospital but drive to East Clinic. Having class scheduled like this really cuts down on transportation headaches.
- Typical rotations and length of rotations
  - Our rotations are 3-4 weeks in length. In the fall semester, you rotate on each Linac (2 here and 1 at East Clinic) and one Tomotherapy, and CT. The CT and Simulation rotation are together. In the spring, you rotate on each Linac, tomotherapy, CT and dosimetry. During the final summer, your rotations are shorter, and you also go to other hospitals for externships.
  - It's great that we have a clinic for students to rotate to. The pace is much different than the hospital. Students get great one-on-one attention, get to communicate with all members of the treatment team more, have more contact with patients and get an idea of what it is like to work in a smaller center.
  - Clinical hours are 8 – 4:30, but we move as clinic volume dictates.
- Study areas, library, etc.
  - The students have a computer in the department that they can use at breaks and lunches, as well as a printer to use for course materials. In addition, one of the adjoining buildings to the hospital has a very large medical library. We use their computers for exams, and also their journals and books for class assignments. The library is open until 11 pm most nights, so students find it useful to use this area when they are working on projects or studying for exams.

## D-2 Internship Site Placement

### Internship Site Interviews

In order to meet the best interest of the students and the internship sites, the following system is used for internship site placement:

- By accepting a position in the program, the student agrees to be placed at any one of the seven internship sites. Each student will be placed according to what would be best for his or her learning style.
- Students will schedule an interview at each site with the Education Director. Please use your class of 2024 Canvas site to click on directions for scheduling your visits this summer or fall. Due to remaining COVID-19 restrictions, the visits may be conducted in a virtual environment. This will become available to you at the program orientation on April 12.
- While we will do our best to consider personal reasons for placement, we reserve the right to assign each student to a site where we think you will learn best.
- Students will be notified on their placement prior to Spring Break, prior to the beginning of their internship year.

### D-3 Affiliated Externship Sites

During the final summer of the clinical internship, students can gain clinical experience at a site other than their assigned hospital. Students may choose to spend time at another clinical site or at one of the program's affiliated externship sites. An update list of affiliates will be sent during the spring semester of the internship year.

### D-4 Clinical Internship Attendance Policies

#### I. General information

- The clinical internship is scheduled for approximately 13 months beginning in early July, 2023 and ending the last Friday in July, 2024.
- Breaks during the internship will be arranged between the Clinical supervisor and the students and may not correspond to the University's academic calendar. But students at each site will take their breaks during the same periods.
- During the clinical internship, students will be present at the clinical affiliate for a 40-hour week. When not in didactic classes, students will be assigned to clinical rotations. Students are not expected to be in attendance more than 40 hours in a week's time.
- The purpose of time use regulation is to maximize the clinical education of students, ensure fairness and equity between students, and foster good work habits for future job success.

#### II. Daily Hours

- Students will be expected to report for an 8-hour day with beginning and ending times designated by the Clinical Supervisor. Variations of these hours must be made in advance and approved by the Clinical Supervisor.
- Students are to log their hours on the designated time keeping record (Trajecsys or other), kept in their clinical rotation sites and signed daily by their clinical instructor. Time reports are to be submitted to and as specified by the Clinical Supervisor.
- One, fifteen- minute break, given in the morning and one in the afternoon may be taken as approved by the appropriate clinical instructor.
- Lunch break will be 30-45 minutes long and is arranged between the clinical instructor and the individual student.
- Early or late hours: Should a patient treatment situation of particular interest arise, that would necessitate attendance beyond normal hours, one or more students may volunteer to stay to observe and assist.
  - The student(s) must submit documentation of the time that they spent and the reason, signed by a therapist, to the program director.
  - Time spent over 40 hrs./week in this manner will be compensated to the student with equal time off at a time arranged between the student and the Clinical Supervisor.
  - Students will not be allowed to "bank" excess comp time beyond 8 hours.
- Breaks may not be used to make up time.
- If a clinical instructor tells a student that she/he may leave early, the student may use time and do so and note the time on his/her record of time using personal time to compensate.



### **III. Personal Days off (*Sick Leave & Vacation*)**

- A. Each student will be granted 10 days for personal use when sick or for vacation. As of the Spring of 2022, this policy is currently under review and may be updated prior to the start of internship for the Classes of 2023 and 2024.
- B. Vacation or personal days are to be scheduled in advance and approved by the Educational Director of the internship site.
- C. When students are sick and unable to come to classes and/or clinical, they are required to call their Educational Director or Clinical Supervisor or to leave a message at the front desk by the start of the class day. Sick days are to be used for illness or doctor's appointments and not for other purposes. Students found in violation will be subject to disciplinary action.
- D. A student who misses three consecutive school days because of illness must bring a doctor's clearance upon returning to school.

### **IV. Scheduled Breaks**

- A. A wellness long weekend is scheduled according to UWL's extended wellness weekend.
- B. Students are granted a semester break after fall semester, until mid-January of 2024. This is subject to change at the discretion of program officials, but will be roughly three to four weeks.
- C. A Spring Break will be scheduled as per University of Wisconsin-La Crosse unless the students and Education Director/Clinical Supervisor at an internship agree to change the break to another week.
- D. A week break around the time of commencement in May will be scheduled.

### **IV. Holidays.**

Holidays observed are: Labor Day, Thanksgiving (& Friday following), Martin Luther King Day, Memorial Day and the Fourth of July.

### **V. Funeral attendance/Bereavement time**

1. Students are allowed up to three days of time upon the death of a close family member for bereavement and funeral attendance.
2. Students may have time to attend the funeral of a friend or other significant person upon the discretion of the Educational Director/Clinical Supervisor.
3. For any use of time for this purpose the Clinical Coordinator is to be consulted.

### **VI. Incomplete (Insufficient Time)**

If a student uses more time than allowed for personal holiday, sick leave, etc. and becomes deficient in the standard amount of time required by the clinical affiliate for graduation, the student will be required to spend the appropriate amount of time to be made up in the department during a normal work day under the supervision of a therapist. Upon completion of the deficient time the student will receive his/her diploma and will be declared a graduate. Students may voluntarily "makeup" time used in excess for sick leave or other reasons by:

1. Starting early or staying late in the clinic, involved in valuable clinical experiences; beyond the eight hour day or on weekends (supervised by a staff radiation therapist).
2. Above time must be noted on the time report and initialed by the supervising clinical instructor.
3. Excessive absenteeism may be brought by the Educational Director/Clinical Supervisor of the student's internship site to the Student Progress Committee which will recommend action to be taken. Actions can include probation and dismissal from the program.

## **VII. Mandatory Attendance Requirements**

### **A. General**

1. All students are required to attend classes, unless ill or on approved leave.
2. Classes are pre-scheduled by the Education Director/Clinical Supervisor and the individual instructors. The instructor or Education Director/Clinical Supervisor will inform students of classes which are to be cancelled and will reschedule them.
3. Students absent on the day of an exam are to make up the exam on the next day of attendance. (An exception would be a student who also missed, by vacation or extended illness, lecture material covered on the exam. That student would have an additional day to obtain notes covering that material.) Failure to take the exam as required will necessitate a lowering of the achieved grade by one full step.

### **B. Conferences**

1. All students will attend clinical conferences (chart rounds, tumor boards) within the clinical affiliate as scheduled by the Clinical Supervisor.
2. Students will join the state professional society: Radiation Therapists of Wisconsin (RTOW) and attend the fall and spring meetings as possible.
3. Students are also encouraged and will be excused from clinical internship to attend the annual ASRT Radiation Therapy conference in the fall. Students will be responsible for all costs associated with attending the conference.

## **D-5 Inclement Weather Policy**

Living and going to school in Wisconsin and Illinois can sometimes be challenging due to the weather. There are times that attendance may be affected by snow, ice or extreme cold. The policy regarding attendance during those times is as follows.

1. If the University of Wisconsin (La Crosse, Madison, or Milwaukee as pertinent), Midstate Technical College, Northcentral Technical College or Northeastern Illinois University announces that its classes are cancelled for the day due to the weather:
  - a. Classes will also be cancelled for our program. It will be considered a snow day and no time will be deducted.
  - b. Should one or more students feel that they can safely attend, they may do so, spend the day in clinical assignments and they will be given "comp" time equivalent to the number of hours spent in attendance.
2. On days of inclement weather, in which the University remains in session:
  - a. The student(s) must make a decision whether they are able to safely attempt to come to school, based on their best judgment.
  - b. Classes will be held as scheduled as much as possible.
  - c. Students who elect not to come in, must call in to communicate that decision. They will be able to use vacation or personal holiday time and will be allowed to make up the time at a later date.

**D-6 Responsibilities of Student Radiation Therapists**

The student radiation therapist is a member of a health professions team dedicated to the diagnosis and treatment of disease. Under the supervision of qualified radiation oncologists, certified radiation therapists, and other related professionals such as RN's, physicists and medical dosimetrists, the student receives didactic and clinical education in the art and science of radiation therapy.

**Students' Responsibilities Are:****1. Contributing to the department and hospital in such a way as to promote the highest quality patient care by:**

- Treating all patients with the utmost care and respect.
- Protecting confidential information of any and all patients.
- Being sensitive to the special needs and concerns of patients and their families.
- Ensuring the safety of patient, staff, personnel and students. Carelessness cannot and will not be tolerated.
- Accurately setting up patients according to the specifications and orders of the physicians and radiation therapists.
- Maintaining a high quality of work in both clinical and didactic areas.

**2. Obtaining proficiency in all areas of didactic and clinical education by:**

- Attending all classes and clinical assignments as scheduled.
- Completing didactic and clinical assignments on time.
- Participating in clinical activities under the direction of clinical instructors. Students are not allowed to treat patients on their own. They must be supervised by a certified radiation therapist. Students can be assured that they will not be used in place of paid technological staff.
- Using clinical time wisely and practicing skills when patients are not scheduled.
- Accepting instruction and constructive feedback in a professional and positive manner.
- Utilizing all opportunities to improve skills and knowledge in the field of radiation therapy.

**3. Demonstrating personal conduct indicative of a mature health care professional by:**

- Being prompt for classes, conferences and clinical rotations.
- Being dependable, accepting tasks and responsibilities as they are delegated.
- Students may not drink alcoholic beverages or use drugs that affect sensory or motor skills during school hours. Nor will students be allowed to let such use on personal time affect their performance during school hours.
- Treating the equipment with respect. Informing proper personnel of problems that may arise with equipment.
- Reporting any clinical mistakes to the proper authorities.
- Maintaining high ethical and moral standards in clinical and didactic experiences.
- Following policies and procedures of the clinical affiliate.
- Not using electronic devices in the clinical setting.

**D-7 Clinical Rotations**

Students will rotate through the following clinical areas to receive training and experience:

- a. **CT Simulator:** Patients are initiated into the treatment process in these areas where planning of the best approach to treatment is combined with determination of patient position and reference markings on the patient, design of treatment accessories and devices and documentation of the same.
- b. **Treatment Machines:** Linear Accelerators of various energies and with several ancillary pieces of equipment such as record & verify systems, electronic medical record systems and imaging capabilities will give students the opportunity to learn how radiation treatments are accurately and precisely delivered on a daily basis for a variety of cancer types and stages.
- c. **Dosimetry:** Rotations will give students training in the measurement, calculation and optimization of dose delivery for treatments. During these rotations, students will also learn to fabricate shielding and beam modification devices, such as blocks, bolus and compensators.
- d. **Radiation Therapy and Oncology Clinics:** Give students the opportunity to work with and observe the Radiation Oncologist and Oncology nurse in examination, education and follow-up of radiotherapy patients. Basic nursing skills are practiced and enhanced, including vital signs, patient transfer and oxygen administration.
- e. **Brachytherapy:** involves the delivery of a high dose of radiation to a very local area, using a radio-isotope as a source. Certain types of GYN, prostate, lung and other cancers are particularly well suited to this treatment. Students will learn to assist and film for verification in either a low dose rate or high dose rate remote system.
- f. **Special Procedures- Stereotactic radiosurgery, Gamma Knife, Cyberknife, MRI Linacs and/or Orthovoltage** treatments will be introduced as specialty areas and may be scheduled as a one-time experience.
- g. **Radiology:** Students will have the opportunity to spend time observing in a radiology department. This will strengthen their understanding of the diagnostic procedures utilized for cancer patients and allow them to apply what they have learned in their imaging course.

**Students Are Responsible To:**

1. Educational Director/Clinical Supervisor of the clinical affiliate.
2. Clinical Coordinator
3. Program Director
4. Clinical Manager or Director of the clinical affiliate.
5. Clinical Instructors
6. Didactic (Classroom) Instructors

**D-8 The Clinical Education Component**

The officials of the University of Wisconsin La Crosse Radiation Therapy program support a philosophy that a strong clinical emphasis is essential in training radiation therapists. The academic or didactic area is very important but unless the individual therapist can take what he/she has learned in class and put it to practice in the clinical arena he/she will not be able to function adequately in the field. Trained and certified radiation therapists constantly supervise students in their clinical rotations. They not only provide the student with information on techniques and procedures, but also with background material and rationale for what is done. Staff and resident radiation oncologists as well as nursing staff, dosimetrists, and physicists are available for further explanations and assistance.

The plan for clinical education includes the following points:

1. All activities are designed to be educational.
2. Students will always be supervised by qualified personnel. (Radiation therapists, nurses, physicians, medical dosimetrists, medical physicists, or radiographers as appropriate.)
3. Students will rotate through all clinical areas at least twice during the internship.
4. Students will complete a "safety checklist" and "imaging checklist" during the first rotations through the treatment units and simulator.
5. Clinical assignments will be given to check cognitive learning in regard to the clinical objectives.
6. Students will demonstrate psychomotor learning by competency testing on setups listed in syllabi for the clinical practicum courses, as required by the ARRT.
  - a. If a student fails in an attempt to document competency, the setup must be repeated. Failed competencies must be turned in, and may be counted against the student's grade.
  - b. The student is observed during the competency testing by a clinical instructor who completes the competency form.
  - c. This instructor will give students ample time to complete the setup and may help in lifting or three pointing as directed by the student.
  - d. He/she will give the student an opportunity to self-correct any errors in setup but will not allow the patient to be treated incorrectly. A limited number of competencies may be obtained with the use of a phantom or patient model, rather than a real patient.
  - e. The list of required clinical competencies follows in this handbook, as per the ARRT requirements
7. Clinical Affective Evaluation forms, addressing affective learning objectives, will be filled out by two radiation therapists (whenever possible) who have worked closely with the student during their rotation.
8. The clinical instructor or the Clinical Supervisor will review the evaluations with the student within two weeks of the end of each rotation, whenever possible.
9. Objectives for each clinical practicum course, competency testing forms, evaluation forms, clinical assignments, professional development evaluations, and exams will be given the student at the beginning of the term, via the course syllabus and Canvas.

**D-9 Checklist of Required Clinical Competencies**

**UNIVERSITY OF WISCONSIN LA CROSSE RADIATION THERAPY  
CHECKLIST OF REQUIRED CLINICAL COMPETENCIES: RT 471-474**

Student Name: \_\_\_\_\_ Internship Site: \_\_\_\_\_

Completion Date: \_\_\_\_\_

Clinical Supervisor Signature: \_\_\_\_\_

*\*All competencies must be completed on patients unless otherwise noted*

*\*Multiple field competencies may include treatments using IMRT, 3D conformal, and/or Arc Therapy unless otherwise noted*

- |  |  |
|--|--|
| <input type="checkbox"/> Safety checklist for Simulation                     | <input type="checkbox"/> Patient transfer from wheelchair to table |
| <input type="checkbox"/> Safety checklist for Treatment Unit                 | <input type="checkbox"/> Patient transfer from cart to table       |
| <input type="checkbox"/> Vital Sign Measurement (done in clinic rotation)    | <input type="checkbox"/> 3-point patient                           |
| <input type="checkbox"/> Pulse <input type="checkbox"/> Respiration          | <input type="checkbox"/> 3-point patient with mold or belly board  |
| <input type="checkbox"/> Blood Pressure <input type="checkbox"/> Temperature | <input type="checkbox"/> 3-point patient with a mask               |
| <input type="checkbox"/> Oxygen Administration                               |  |
| <input type="checkbox"/> CPR and BLS training/certification                  |  |
| <input type="checkbox"/> Programming and Running Machine (console)           |  |
| <input type="checkbox"/> Field & Table Settings (pendant)                    |  |

**Treatment-Required competencies  
(3 of these may be completed on a phantom)**

- Metastatic Brain
- Primary Brain
- Multiple Field Head and Neck
- Multiple Field Chest (non-IMRT)
- IMRT and/or Arc Therapy Chest
- Tangential Breast Fields
- Tangential Breast with Supclav
- Tang Breasts with Supclav and PAB
- Special Set-Up Breast (Photon or Electron Bst, Prone, IMRT, Gating)
- Single Electron Field
- Photon or electron abutting fields
- Spine (Multi-field)
- Extremity
- Multiple Field Abdomen
- Multiple Field Supine Pelvis
- Multiple Field Prone Pelvis

**Participatory Procedures (complete all 6)**

- Craniospinal
- Total Body Irradiation (TBI)
- Brachytherapy

**Dosimetry/Physics**

- Calculations**
- Single open field
  - Parallel Opposed field w/blocks
  - Computer Generated Isodose Plan
  - Weighted Fields
  - Wedged Fields
  - Electron Field

**Simulation-Required Competencies**

- Custom Immobilization Device for Chest, Abdomen/Pelvis
- Custom Immobilization Device-Mask
- Chest
- Breast
- Skeletal (ie. Spine or Extremity)
- Brain-Primary or Metastatic
- Head and Neck
- Pelvis (Non-Skeletal)

**Imaging Competency Checklist (or n/a; differs per site)**

- CBCT
- MV imaging
- KV/KV match
- KV/MV pair
- MV match
- Tomotherapy
- Surface guided imaging (synchrony, Vision RT, etc)
- CTOR

- SRS/SBRT Treatment
- Special Sim Procedure (4D CT, SBRT, Gating, or brachytherapy)
- Custom block cutting

**Treatment Accessory Devices**

- Fabrication of Custom Bolus

**Quality Control**

- Linac
- Simulator

6/22/21

## D-10 Dress and Appearance Standards for Radiation Therapy Students During Clinical Internship

Dress and appearance standards depend upon policies at the clinical internship sites and will be shared with students during Orientation (RT 401). Examples of dress codes are included below to give students guidance in preparing for the internship. *Our clothing communicates to fellow staff and patients who we are in part and connotes professionalism or its lack. This should be considered in selection of apparel for school.*

SCRUBS: Are usually acceptable and would consist of the following:

- Types of scrubs and colors differ between clinical sites. Your clinical supervisor will educate you on appropriate scrub clothing for your assigned clinical internship site.

LAB COATS:

- Lab coats are to be worn at all times when scrubs or uniform are not worn.
- Lab coats are to be neat and clean, white in color, and without holes.

CLOTHING

- Clothing worn beneath a lab coat should be neat and clean. Clothing usually associated with leisure activities is not appropriate. (No blue jeans, shorts, leggings, capris, yoga pants, collarless T shirts or shirts with writing, halters, cropped tops or sweatpants may be worn.) No skin of midsection should be visible.
- Clothing that restricts movement, inhibiting ability to do clinical duties, is revealing or is offensive to patients in any other way is prohibited.

FOOTWEAR:

- Shoes, any color, clean and polished may be worn. Tennis or athletic shoes are acceptable if they are kept clean and in good condition.
- Sandals may not be worn for safety reasons.
- Socks are to be worn at all times.

GROOMING:

Because the condition and treatment of our patients make them sensitive to odors in many cases, good grooming is essential. Use of an effective deodorant which doesn't have a strong aroma of its own is required. Perfumes and after shaves must also be selected with care as these too may be difficult for our patients to tolerate. Hair, beards and mustaches must be neatly groomed and clean. Body piercing, other than ears may not be allowed, depending on the site.

MASKING:

Students should follow the clinical internship site's policies on mask requirements.

IDENTIFICATION:

Name tags will be worn regardless of type of uniform worn.

**A student who does not comply with these standards may be sent home to change. During the absence he/she will have to use personal time. If further incidents occur, additional disciplinary action will take place.**

## D-11 Radiation Protection Policy and Procedures in the Clinical Internship

### **Patient safety:**

1. During simulation images, the CT scan volume pertains to the area of interest and according to simulation orders, and exposure factors utilized must produce the minimum amount of patient exposure needed to obtain diagnostic images. ALARA guidelines should be followed at all times.
2. Calculations or treatment plans done by students in the dosimetry rotation must be double-checked by the dosimetrists.
3. Students rotating on the treatment units and simulator are to be supervised at all times by staff radiation therapists to assure that proper treatments are given.
4. Any errors in set-up or treatment must be reported by the student to the supervising or radiation oncology professional in charge of that patient's care.
5. During treatments the patients must be monitored at all times via the closed circuit television monitors.

### **Student Radiation Safety:**

1. Students who are new to clinical internship must receive orientation to radiation safety practices and requirements by the Radiation Safety Officer or designated personnel.
2. A radiation monitoring badge must be worn by the student at all times while in the department.
3. When rotating through brachytherapy, if the student is loading or unloading sources, a ring badge must also be worn.
4. Students and therapists working in the simulator and treatment units must never be in the room during exposures or treatments.
5. The students upon beginning each clinical rotation must be made aware of emergency "off" locations and other safety factors.
6. Should the treatment machines malfunction or the beam turn on while a student or therapist is in the room an emergency "off" must be activated immediately.
7. Students working in brachytherapy must remember and put to use ALARA techniques of time, distance and shielding.
8. The student must be aware of the procedure to follow should the linear accelerator or simulator fail to turn off the beam.
9. Radiation exposure levels will be monitored by the dosimetry and physics departments and if necessary reported to the student and Education Director/Clinical Supervi.

### **Radiation Monitoring & Excessive Doses:**

1. Radiation Dosimeter reports are reviewed by the Radiation Safety Officer at the clinical internship sites. The reports are made available to students within 30 days of receipt.
2. Monthly/quarterly radiation exposures for students must not exceed 50 mRem to occupationally exposed persons as established by the state and federal agencies for radiologic health.
3. If abnormal (high) readings are present (125-250 mrem), the radiation safety officer, clinical supervisor/education director and program officials will investigate the cause. This may include interviews with students, clinical instructors and other relevant individuals. The objective of this investigation will be to learn why the student received the excessive dose and to determine what type of corrective action may be needed.
4. A report of the information obtained and subsequent corrective action will be provided to the student. This action will be enforced and the results of the investigation and corrective action will be placed in the student's file and program files for future reference.



5. The Radiation Safety Officer and Program Officials will counsel the student to include the risk from radiation exposure, the reason for the exposure (if possible to determine), and changes in work habits, procedures, and equipment as appropriate. The student will be monitored closely to ensure they are following the corrective action plan.

#### **D-12 MRI Safety Policy**

In MRI, the magnetic field is always on. Students working with or observing in an MRI area will comply with each site's policies and procedures regarding metallic objects being introduced into the MRI scanning area. This will largely be accomplished by completing the MRI Module in RT 390 and completing a screening survey, as detailed below. Carrying ferromagnetic articles or introducing them to the MRI scanning area is strictly prohibited. These objects can become projectiles within the scanning room causing serious injury or death and/or equipment failure. This would include but not be limited to: oxygen tanks, wheelchairs, carts, monitors, IV poles, laundry hampers, tools, furniture, personal ferromagnetic items (eg. Cell phones, iPods, Fitness tracking watches, underwire bras). Students will be screened according to patient screening protocols at the respective hospital, to assure MRI compatibility. The MRI safety screening is performed on each student by their assigned clinical site. This will be completed when they visit the MRI department during a diagnostic radiology rotation or when working with MRI simulation or treatment machines. An example of such screening form is available in Appendix D (F-4) as recommended by the ACR. Students should notify the clinical supervisor immediately if their safety status should change after screening due to a surgical implant, personal injury or other event during their time in the program.

#### **D-13 Policy Regarding Employment of Students in Radiation Therapy**

1. Students may be employed in a clinical radiation oncology facility outside educational hours provided the work does not interfere with the educational program.
2. The student should not be involved in unsupervised treatment of patients.
3. The work must be non-compulsory, paid, and subject to employee regulations.
4. The student employed during training is not covered during hours worked in that employment for liability by the University of Wisconsin-La Crosse or the clinical affiliate hospital.

## Section E- Information about Assessment and Evaluation

### Evaluation and Assessment Plan

1. Students will evaluate didactic courses and instructors at the end of the course both on campus and at internship. The evaluations will be prepared by the Clinical Coordinator via the Trajecsyst electronic recordkeeping system. The results will be tabulated within the system and shared with the respective instructors.
2. Students will evaluate clinical instructors at the end of each clinical rotation, also via Trajecsyst. The Clinical Supervisor/Education Director of the internship site will share the evaluations with the clinical instructors.
3. Student evaluations may be done anonymously.
4. An evaluation form will be sent to graduates and their employers six months following graduation via email or social media. A survey will be sent to each graduate and an additional survey will be sent to be filled out by the employer, Chief Radiation Therapist or Radiation Oncologist, at the former student's request.
5. Students are strongly urged to participate in evaluation exercises to assist the program officials in outcome assessment and improvement of the program.
6. Outcome Assessment will be conducted on a continuous basis. The Program Officials will gather information and do initial analysis. The information will be shared with the Radiation Therapy Advisory Committee.
7. Outcome measures that do not meet benchmarks will signal a need for revision which will be addressed by the Program Officials and Advisory Committee.
8. The University of Wisconsin-La Crosse seeks accreditation from the Joint Review Committee on Education in Radiologic Technology. Evaluation from the accrediting body will be reviewed by the Advisory Committee and Program Officials and discussion and decisions based on findings may bring about change in the program.

## Section F: Appendices



U.S. NUCLEAR REGULATORY COMMISSION

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# REGULATORY GUIDE

OFFICE OF NUCLEAR REGULATORY RESEARCH

## REGULATORY GUIDE 8.13

(Draft was issued as DG-8014)

### INSTRUCTION CONCERNING PRENATAL RADIATION EXPOSURE

#### A. INTRODUCTION

The Code of Federal Regulations in 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," in Section 19.12, "Instructions to Workers," requires instruction in "the health protection problems associated with exposure to radiation and/or radioactive material, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed." The instructions must be "commensurate with potential radiological health protection problems present in the work place."

The Nuclear Regulatory Commission's (NRC's) regulations on radiation protection are specified in 10 CFR Part 20, "Standards for Protection Against Radiation"; and 10 CFR 20.1208, "Dose to an Embryo/Fetus," requires licensees to "ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv)." Section 20.1208 also requires licensees to "make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman." A declared pregnant woman is defined in 10 CFR 20.1003 as a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

This regulatory guide is intended to provide information to pregnant women, and other personnel, to help them make decisions regarding radiation exposure during pregnancy. This Regulatory Guide 8.13 supplements Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure" (Ref. 1), which contains a broad discussion of the risks from exposure to ionizing radiation.

Other sections of the NRC's regulations also specify requirements for monitoring external and internal occupational dose to a declared pregnant woman. In 10 CFR 20.1502, "Conditions Requiring Individual Monitoring of External and Internal Occupational Dose," licensees are required to monitor the occupational dose to a declared pregnant woman, using an individual monitoring device, if it is likely that the declared pregnant woman will receive, from external sources, a deep dose equivalent in excess of 0.1 rem (1 mSv). According to Paragraph (e) of 10 CFR 20.2106, "Records of Individual Monitoring Results," the licensee must maintain records of dose to an embryo/fetus if monitoring was required, and the records of dose to the embryo/fetus must be kept with the records of dose to the declared pregnant woman. The declaration of pregnancy must be kept on file, but may be maintained separately from the dose records. The licensee must retain the re-

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This guide was issued after consideration of comments received from the public. Comments and suggestions for improvements in these guides are encouraged at all times, and guides will be revised, as appropriate, to accommodate comments and to reflect new information or experience.

Written comments may be submitted to the Rules and Directives Branch, ADM, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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quired form or record until the Commission terminates each pertinent license requiring the record.

The information collections in this regulatory guide are covered by the requirements of 10 CFR Parts 19 or 20, which were approved by the Office of Management and Budget, approval numbers 3150-0044 and 3150-0014, respectively. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

## **B. DISCUSSION**

As discussed in Regulatory Guide 8.29 (Ref. 1), exposure to any level of radiation is assumed to carry with it a certain amount of risk. In the absence of scientific certainty regarding the relationship between low dose exposure and health effects, and as a conservative assumption for radiation protection purposes, the scientific community generally assumes that any exposure to ionizing radiation may cause undesirable biological effects and that the likelihood of these effects increases as the dose increases. At the occupational dose limit for the whole body of 5 rem (50 mSv) per year, the risk is believed to be very low.

The magnitude of risk of childhood cancer following in utero exposure is uncertain in that both negative and positive studies have been reported. The data from these studies "are consistent with a lifetime cancer risk resulting from exposure during gestation which is two to three times that for the adult" (NCRP Report No. 116, Ref. 2). The NRC has reviewed the available scientific literature and has concluded that the 0.5 rem (5 mSv) limit specified in 10 CFR 20.1208 provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers associated with radiation exposure during pregnancy.

In order for a pregnant worker to take advantage of the lower exposure limit and dose monitoring provisions specified in 10 CFR Part 20, the woman must declare her pregnancy in writing to the licensee. A form letter for declaring pregnancy is provided in this guide or the licensee may use its own form letter for declaring pregnancy. A separate written declaration should be submitted for each pregnancy.

## **C. REGULATORY POSITION**

### **1. Who Should Receive Instruction**

Female workers who require training under 10 CFR 19.12 should be provided with the information contained in this guide. In addition to the information

contained in Regulatory Guide 8.29 (Ref. 1), this information may be included as part of the training required under 10 CFR 19.12.

### **2. Providing Instruction**

The occupational worker may be given a copy of this guide with its Appendix, an explanation of the contents of the guide, and an opportunity to ask questions and request additional information. The information in this guide and Appendix should also be provided to any worker or supervisor who may be affected by a declaration of pregnancy or who may have to take some action in response to such a declaration.

Classroom instruction may supplement the written information. If the licensee provides classroom instruction, the instructor should have some knowledge of the biological effects of radiation to be able to answer questions that may go beyond the information provided in this guide. Videotaped presentations may be used for classroom instruction. Regardless of whether the licensee provides classroom training, the licensee should give workers the opportunity to ask questions about information contained in this Regulatory Guide 8.13. The licensee may take credit for instruction that the worker has received within the past year at other licensed facilities or in other courses or training.

### **3. Licensee's Policy on Declared Pregnant Women**

The instruction provided should describe the licensee's specific policy on declared pregnant women, including how those policies may affect a woman's work situation. In particular, the instruction should include a description of the licensee's policies, if any, that may affect the declared pregnant woman's work situation after she has filed a written declaration of pregnancy consistent with 10 CFR 20.1208.

The instruction should also identify who to contact for additional information as well as identify who should receive the written declaration of pregnancy. The recipient of the woman's declaration may be identified by name (e.g., John Smith), position (e.g., immediate supervisor, the radiation safety officer), or department (e.g., the personnel department).

### **4. Duration of Lower Dose Limits for the Embryo/Fetus**

The lower dose limit for the embryo/fetus should remain in effect until the woman withdraws the declaration in writing or the woman is no longer pregnant. If a declaration of pregnancy is withdrawn, the dose limit for the embryo/fetus would apply only to the time from the estimated date of conception until the time the declaration is withdrawn. If the declaration is

not withdrawn, the written declaration may be considered expired one year after submission.

### **5. Substantial Variations Above a Uniform Monthly Dose Rate**

According to 10 CFR 20.1208(b), "The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section," that is, 0.5 rem (5 mSv) to the embryo/fetus. The National Council on Radiation Protection and Measurements (NCRP) recommends a monthly equivalent dose limit of 0.05 rem (0.5 mSv) to the embryo/fetus once the pregnancy is known (Ref. 2). In view of the NCRP recommendation, any monthly dose of less than 0.1 rem (1 mSv) may be considered as not a substantial variation above a uniform monthly dose rate and as such will not require licensee justification. However, a monthly dose greater than 0.1 rem (1 mSv) should be justified by the licensee.

## **D. IMPLEMENTATION**

The purpose of this section is to provide information to licensees and applicants regarding the NRC staff's plans for using this regulatory guide.

Unless a licensee or an applicant proposes an acceptable alternative method for complying with the specified portions of the NRC's regulations, the methods described in this guide will be used by the NRC staff in the evaluation of instructions to workers on the radiation exposure of pregnant women.

### **REFERENCES**

1. USNRC, "Instruction Concerning Risks from Occupational Radiation Exposure," Regulatory Guide 8.29, Revision 1, February 1996.
2. National Council on Radiation Protection and Measurements, *Limitation of Exposure to Ionizing Radiation*, NCRP Report No. 116, Bethesda, MD, 1993.

## APPENDIX

### QUESTIONS AND ANSWERS CONCERNING PRENATAL RADIATION EXPOSURE

#### 1. Why am I receiving this information?

The NRC's regulations (in 10 CFR 19.12, "Instructions to Workers") require that licensees instruct individuals working with licensed radioactive materials in radiation protection as appropriate for the situation. The instruction below describes information that occupational workers and their supervisors should know about the radiation exposure of the embryo/fetus of pregnant women.

The regulations allow a pregnant woman to decide whether she wants to formally declare her pregnancy to take advantage of lower dose limits for the embryo/fetus. This instruction provides information to help women make an informed decision whether to declare a pregnancy.

#### 2. If I become pregnant, am I required to declare my pregnancy?

No. The choice whether to declare your pregnancy is completely voluntary. If you choose to declare your pregnancy, you must do so in writing and a lower radiation dose limit will apply to your embryo/fetus. If you choose not to declare your pregnancy, you and your embryo/fetus will continue to be subject to the same radiation dose limits that apply to other occupational workers.

#### 3. If I declare my pregnancy in writing, what happens?

If you choose to declare your pregnancy in writing, the licensee must take measures to limit the dose to your embryo/fetus to 0.5 rem (5 millisievert) during the entire pregnancy. This is one-tenth of the dose that an occupational worker may receive in a year. If you have already received a dose exceeding 0.5 rem (5 mSv) in the period between conception and the declaration of your pregnancy, an additional dose of 0.05 rem (0.5 mSv) is allowed during the remainder of the pregnancy. In addition, 10 CFR 20.1208, "Dose to an Embryo/Fetus," requires licensees to make efforts to avoid substantial variation above a uniform monthly dose rate so that all the 0.5 rem (5 mSv) allowed dose does not occur in a short period during the pregnancy.

This may mean that, if you declare your pregnancy, the licensee may not permit you to do some of your normal job functions if those functions would have allowed you to receive more than 0.5 rem, and you may

not be able to have some emergency response responsibilities.

#### 4. Why do the regulations have a lower dose limit for the embryo/fetus of a declared pregnant woman than for a pregnant worker who has not declared?

A lower dose limit for the embryo/fetus of a declared pregnant woman is based on a consideration of greater sensitivity to radiation of the embryo/fetus and the involuntary nature of the exposure. Several scientific advisory groups have recommended (References 1 and 2) that the dose to the embryo/fetus be limited to a fraction of the occupational dose limit.

#### 5. What are the potentially harmful effects of radiation exposure to my embryo/fetus?

The occurrence and severity of health effects caused by ionizing radiation are dependent upon the type and total dose of radiation received, as well as the time period over which the exposure was received. See Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Exposure" (Ref. 3), for more information. The main concern is embryo/fetal susceptibility to the harmful effects of radiation such as cancer.

#### 6. Are there any risks of genetic defects?

Although radiation injury has been induced experimentally in rodents and insects, and in the experiments was transmitted and became manifest as hereditary disorders in their offspring, radiation has not been identified as a cause of such effect in humans. Therefore, the risk of genetic effects attributable to radiation exposure is speculative. For example, no genetic effects have been documented in any of the Japanese atomic bomb survivors, their children, or their grandchildren.

#### 7. What if I decide that I do not want any radiation exposure at all during my pregnancy?

You may ask your employer for a job that does not involve any exposure at all to occupational radiation dose, but your employer is not obligated to provide you with a job involving no radiation exposure. Even if you receive no occupational exposure at all, your embryo/fetus will receive some radiation dose (on average 75 mrem (0.75 mSv)) during your pregnancy from natural background radiation.

The NRC has reviewed the available scientific literature and concluded that the 0.5 rem (5 mSv) limit

provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers.

If this dose limit is exceeded, the total lifetime risk of cancer to the embryo/fetus may increase incrementally. However, the decision on what level of risk to accept is yours. More detailed information on potential risk to the embryo/fetus from radiation exposure can be found in References 2-10.

**8. What effect will formally declaring my pregnancy have on my job status?**

Only the licensee can tell you what effect a written declaration of pregnancy will have on your job status. As part of your radiation safety training, the licensee should tell you the company's policies with respect to the job status of declared pregnant women. In addition, before you declare your pregnancy, you may want to talk to your supervisor or your radiation safety officer and ask what a declaration of pregnancy would mean specifically for you and your job status.

In many cases you can continue in your present job with no change and still meet the dose limit for the embryo/fetus. For example, most commercial power reactor workers (approximately 93%) receive, in 12 months, occupational radiation doses that are less than 0.5 rem (5 mSv) (Ref. 11). The licensee may also consider the likelihood of increased radiation exposures from accidents and abnormal events before making a decision to allow you to continue in your present job.

If your current work might cause the dose to your embryo/fetus to exceed 0.5 rem (5 mSv), the licensee has various options. It is possible that the licensee can and will make a reasonable accommodation that will allow you to continue performing your current job, for example, by having another qualified employee do a small part of the job that accounts for some of your radiation exposure.

**9. What information must I provide in my written declaration of pregnancy?**

You should provide, in writing, your name, a declaration that you are pregnant, the estimated date of conception (only the month and year need be given), and the date that you give the letter to the licensee. A form letter that you can use is included at the end of these questions and answers. You may use that letter, use a form letter the licensee has provided to you, or write your own letter.

**10. To declare my pregnancy, do I have to have documented medical proof that I am pregnant?**

NRC regulations do not require that you provide medical proof of your pregnancy. However, NRC regulations do not preclude the licensee from requesting medical documentation of your pregnancy, especially if a change in your duties is necessary in order to comply with the 0.5 rem (5 mSv) dose limit.

**11. Can I tell the licensee orally rather than in writing that I am pregnant?**

No. The regulations require that the declaration must be in writing.

**12. If I have not declared my pregnancy in writing, but the licensee suspects that I am pregnant, do the lower dose limits apply?**

No. The lower dose limits for pregnant women apply only if you have declared your pregnancy in writing. The United States Supreme Court has ruled (in *United Automobile Workers International Union v. Johnson Controls, Inc.*, 1991) that "Decisions about the welfare of future children must be left to the parents who conceive, bear, support, and raise them rather than to the employers who hire those parents" (Reference 7). The Supreme Court also ruled that your employer may not restrict you from a specific job "because of concerns about the next generation." Thus, the lower limits apply only if you choose to declare your pregnancy in writing.

**13. If I am planning to become pregnant but am not yet pregnant and I inform the licensee of that in writing, do the lower dose limits apply?**

No. The requirement for lower limits applies only if you declare in writing that you are already pregnant.

**14. What if I have a miscarriage or find out that I am not pregnant?**

If you have declared your pregnancy in writing, you should promptly inform the licensee in writing that you are no longer pregnant. However, if you have not formally declared your pregnancy in writing, you need not inform the licensee of your nonpregnant status.

**15. How long is the lower dose limit in effect?**

The dose to the embryo/fetus must be limited until you withdraw your declaration in writing or you inform the licensee in writing that you are no longer pregnant. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.



**16. If I have declared my pregnancy in writing, can I revoke my declaration of pregnancy even if I am still pregnant?**

Yes, you may. The choice is entirely yours. If you revoke your declaration of pregnancy, the lower dose limit for the embryo/fetus no longer applies.

**17. What if I work under contract at a licensed facility?**

The regulations state that you should formally declare your pregnancy to the licensee in writing. The licensee has the responsibility to limit the dose to the embryo/fetus.

**18. Where can I get additional information?**

The references to this Appendix contain helpful information, especially Reference 3, NRC's Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure," for general information

on radiation risks. The licensee should be able to give this document to you.

For information on legal aspects, see Reference 7, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children—What Can the Employer Do?" which is an article in the journal *Radiation Protection Management*.

You may telephone the NRC Headquarters at (301) 415-7000. Legal questions should be directed to the Office of the General Counsel, and technical questions should be directed to the Division of Industrial and Medical Nuclear Safety.

You may also telephone the NRC Regional Offices at the following numbers: Region I, (610) 337-5000; Region II, (404) 562-4400; Region III, (630) 829-9500; and Region IV, (817) 860-8100. Legal questions should be directed to the Regional Counsel, and technical questions should be directed to the Division of Nuclear Materials Safety.

## REFERENCES FOR APPENDIX

1. National Council on Radiation Protection and Measurements, *Limitation of Exposure to Ionizing Radiation*, NCRP Report No. 116, Bethesda, MD, 1993.
2. International Commission on Radiological Protection, *1990 Recommendations of the International Commission on Radiological Protection*, ICRP Publication 60, Ann. ICRP 21: No. 1-3, Pergamon Press, Oxford, UK, 1991.
3. USNRC, "Instruction Concerning Risks from Occupational Radiation Exposure," Regulatory Guide 8.29, Revision 1, February 1996.<sup>1</sup> (Electronically available at [www.nrc.gov/NRC/RG/index.html](http://www.nrc.gov/NRC/RG/index.html))
4. Committee on the Biological Effects of Ionizing Radiations, National Research Council, *Health Effects of Exposure to Low Levels of Ionizing Radiation (BEIR V)*, National Academy Press, Washington, DC, 1990.
5. United Nations Scientific Committee on the Effects of Atomic Radiation, *Sources and Effects of Ionizing Radiation*, United Nations, New York, 1993.
6. R. Doll and R. Wakeford, "Risk of Childhood Cancer from Fetal Irradiation," *The British Journal of Radiology*, 70, 130-139, 1997.
7. David Wiedis, Donald E. Jose, and Timm O. Phoebe, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children—What Can the Employer Do?" *Radiation Protection Management*, 11, 41-49, January/February 1994.
8. National Council on Radiation Protection and Measurements, *Considerations Regarding the Unintended Radiation Exposure of the Embryo, Fetus, or Nursing Child*, NCRP Commentary No. 9, Bethesda, MD, 1994.
9. National Council on Radiation Protection and Measurements, *Risk Estimates for Radiation Protection*, NCRP Report No. 115, Bethesda, MD, 1993.
10. National Radiological Protection Board, *Advice on Exposure to Ionising Radiation During Pregnancy*, National Radiological Protection Board, Chilton, Didcot, UK, 1998.
11. M.L. Thomas and D. Hagemeyer, "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities, 1996," Twenty-Ninth Annual Report, NUREG-0713, Vol. 18, USNRC, 1998.<sup>2</sup>

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<sup>1</sup>Single copies of regulatory guides, both active and draft, and draft NUREG documents may be obtained free of charge by writing the Reproduction and Distribution Services Section, OCIO, USNRC, Washington, DC 20555-0001, or by fax to (301)415-2289, or by email to <DISTRIBUTION@NRC.GOV>. Active guides may also be purchased from the National Technical Information Service on a standing order basis. Details on this service may be obtained by writing NTIS, 5285 Port Royal Road, Springfield, VA 22161. Copies of active and draft guides are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW, Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202)634-3343.

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<sup>2</sup>Copies are available at current rates from the U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20402-9328 (telephone (202)512-1800); or from the National Technical Information Service by writing NTIS at 5285 Port Royal Road, Springfield, VA 22161. Copies are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW, Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202)634-3343.

## FORM LETTER FOR DECLARING PREGNANCY

This form letter is provided for your convenience. To make your written declaration of pregnancy, you may fill in the blanks in this form letter, you may use a form letter the licensee has provided to you, or you may write your own letter.

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### DECLARATION OF PREGNANCY

To: \_\_\_\_\_

In accordance with the NRC's regulations at 10 CFR 20.1208, "Dose to an Embryo/Fetus," I am declaring that I am pregnant. I believe I became pregnant in \_\_\_\_\_ (only the month and year need be provided).

I understand the radiation dose to my embryo/fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (5 millisievert) (unless that dose has already been exceeded between the time of conception and submitting this letter). I also understand that meeting the lower dose limit may require a change in job or job responsibilities during my pregnancy.

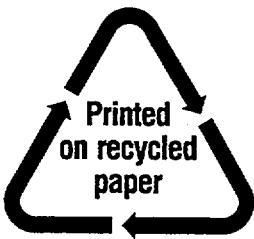
\_\_\_\_\_  
(Your signature)

\_\_\_\_\_  
(Your name printed)

\_\_\_\_\_  
(Date)

## **REGULATORY ANALYSIS**

A separate regulatory analysis was not prepared for this regulatory guide. A regulatory analysis prepared for 10 CFR Part 20, "Standards for Protection Against Radiation" (56 FR 23360), provides the regulatory basis for this guide and examines the costs and benefits of the rule as implemented by the guide. A copy of the "Regulatory Analysis for the Revision of 10 CFR Part 20" (PNL-6712, November 1988) is available for inspection and copying for a fee at the NRC Public Document Room, 2120 L Street NW, Washington, DC, as an enclosure to Part 20 (56 FR 23360).



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## Joint Review Committee on Education in Radiologic Technology (JRCERT) Process for Reporting Allegations

### I. Important Notes

1. The JRCERT cannot advocate on behalf of any student(s). An investigation into allegations of non-compliance addresses only the program's compliance with accreditation standards and will not affect the status of any individual student.
2. The investigation process may take several months.
3. The JRCERT will not divulge the identity of any complainant(s) unless required to do so through the legal process.

### II. Process

1. Before submitting allegations, the individual must first attempt to resolve the complaint directly with program/institution officials by following the due process or grievance procedures provided by the program/institution. Each program/institution is required to publish its internal complaint procedure in an informational document such as a catalog or student handbook (Standard One, Objective 1.1).
2. If the individual is unable to resolve the complaint with program/institution officials or believes that the concerns have not been properly addressed, he or she may submit allegations of non-compliance to the JRCERT:

Chief Executive Officer  
Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
PH: (312) 704 – 5300  
Fax: (312) 704 – 5304  
Email: [mail@jrcert.org](mailto:mail@jrcert.org)

3. The Allegations Reporting Form must be completed and sent to the above address with required supporting materials. All submitted documentation must be legible.
4. Forms submitted without a signature or the required supporting material will not be considered.
5. If a complainant fails to submit appropriate materials as requested, the complaint will be closed.

The Higher Education Opportunities Act of 2008, as amended, provides that a student, graduate, faculty, or any other individual who believes he or she has been aggrieved by an educational program or institution has the right to submit documented allegation(s) to the agency accrediting the institution or program.

The JRCERT, recognized by the United States Department of Education for the accreditation of radiography, radiation therapy, magnetic resonance, and medical dosimetry educational programs investigates allegation(s) submitted, in writing, signed by any individual with reason to believe that an accredited program has acted contrary to the relevant accreditation standards or that conditions at the program appear to jeopardize the quality of instruction or the general welfare of its students.



## Joint Review Committee on Education in Radiologic Technology (JRCERT) Allegations Reporting Form

I. General Information	
Name of Complainant	
Address	
Signature	
Date	

II. Institution Sponsoring the Program	
Name	
City and State	
Type of Program	<input type="checkbox"/> Radiography <input type="checkbox"/> Radiation Therapy <input type="checkbox"/> Magnetic Resonance <input type="checkbox"/> Medical Dosimetry

III. Required Information
<ol style="list-style-type: none"><li>1. Attach a copy of the program's publication that includes the due process or grievance procedure.</li><li>2. Provide a narrative that identifies what you did at each step of the due process or grievance procedure, copies of materials you submitted as part of your appeal, and copies of correspondence you received in response to your appeal.</li><li>3. List the specific objective(s) from the accreditation standards (available at <a href="http://www.jrcert.org/jrcert-standards">www.jrcert.org/jrcert-standards</a>) and indicate what the program is alleged to have done that is not in compliance with the cited objective(s).</li></ol> <p>Example</p> <p><u>Objective:</u> 5.4 direct supervision pre-competency</p> <p><u>Allegation:</u> Students often do patient exams without supervision before they have completed a competency check-off.</p>



**IV. Identify what was done at each step of the due process or grievance procedure (remember to attach copies of materials you submitted as part of your appeal and copies of correspondence you received in response to your appeal).**

**V. List the specific objective(s) from the accreditation standards (available at [www.jrcert.org/jrcert-standards](http://www.jrcert.org/jrcert-standards)) and indicate what the program is alleged to have done that is not in compliance with the cited objective(s).**

**University of Wisconsin – La Crosse  
 General Incident Report**  
 (Complete the following as applicable)

Name		Work Phone		Home Phone	
Home Address				Date of Incident	
City		State	Zip + 4	Hour AM PM	
Full Description of the incident including specific location and activity involved in at the time of the incident. (Use the back of this sheet if additional space is needed.)					
<b>Injuries</b>	Describe full extent of injuries, no matter how minor.				
<b>Witnesses</b>	Name		Full Mailing Address		Phone No. Including Area Code
<b>Property Damage</b>	Type of Property			Type of Damage	
If different than home address, address where damaged property may be seen				Estimated Repair Cost	
I certify that the information in this report is a complete and accurate description of the incident.			Signature		Date

**Return Completed Report To:**

**University of Wisconsin – La Crosse  
 Attn: Risk Manager  
 125 Graff Main Hall  
 La Crosse, WI 54601  
 sgreen@uwlax.edu**

**Or E-Mail Completed Report To:**

# Safety Screening Form for Magnetic Resonance (MR) Procedures

Date: \_\_\_\_\_

Name (first, middle, last): \_\_\_\_\_

Gender:  Male  Female Age: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Height: \_\_\_\_\_ Weight: \_\_\_\_\_

**If uncertain of any answer below, please circle and leave blank to discuss with the technologist.**

## Why are you having this examination (medical problem)?

\_\_\_\_\_

List current medications:

- None  
 \_\_\_\_\_  
\_\_\_\_\_

List all allergies:

- None  
 \_\_\_\_\_  
\_\_\_\_\_

Date of last menstrual period \_\_\_\_\_

Yes  No Is there a possibility that you are pregnant?

Yes  No Are you post-menopausal?

Yes  No Are you breast feeding?

## Please indicate if you have or have not had any of the following:

- Yes  No Previous MRI examination

Facility name and city: \_\_\_\_\_

Date of examination: \_\_\_\_\_

Body part imaging: \_\_\_\_\_ Reason for examination: \_\_\_\_\_

- Yes  No Surgery or medical procedure of any kind

If yes, list all prior surgeries and approximate dates: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

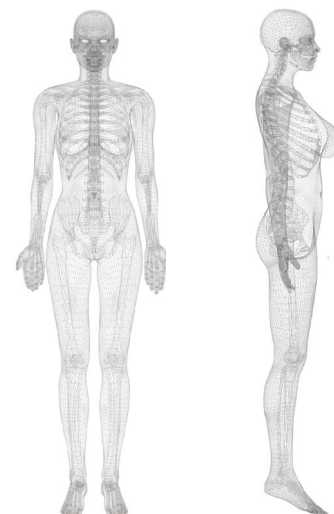
## MR Hazard Checklist

Please mark the location of any implant, device or metallic foreign body inside your body or site of surgical operation.

### Male:



### Female:



# Safety Screening for Magnetic Resonance (MR) Procedures

- Yes  No Injury by a metal object or foreign body (e.g., bullet, BB, shrapnel)  
If yes, explain: \_\_\_\_\_
- Yes  No Injury to your eye from a metal object  
 Yes  No If yes, did you see medical assistance?  
If yes, describe what was found: \_\_\_\_\_
- Yes  No Foreign body removed from eye  
If yes, describe what was taken out: \_\_\_\_\_
- Yes  No Asthma or other allergic respiratory disease
- Yes  No Kidney disease
- Yes  No Diabetes
- Yes  No Hypertension
- Yes  No Previously received contrast agent (dye) for a CT, MRI or other X-ray or study
- Yes  No Allergic reaction to CT, MRI, X-ray contrast agent (dye)  
If yes, explain: \_\_\_\_\_
- Yes  No Spinal fusion procedure
- Yes  No Endoscopy or colonoscopy in last three months

**The following items may be harmful to you during your MR scan and may interfere with the MR examination. You must provide a "Yes" or "No" answer for every item.**

**Please indicate if you CURRENTLY HAVE or HAVE EVER HAD any of the following:**

## Surgically implanted medical devices

- Yes  No Any type of electronic, mechanical or magnetic implant  
If yes, list type: \_\_\_\_\_
- Yes  No Cardiac pacemaker, defibrillator or other cardiac implant (in place or removed)
- Yes  No Aneurysm Clip
- Yes  No Neurostimulator, diaphragmatic stimulator, deep brain stimulator, vagus nerve stimulator, bone growth stimulator, spinal cord stimulator, or any biostimulator (in-place or removed)  
If yes, list type: \_\_\_\_\_
- Yes  No Any type of internal electrodes or wires
- Yes  No Cochlear implant
- Yes  No Implanted drug pump (e.g., insulin, baclofen, chemotherapy, pain medicine)

# Safety Screening for Magnetic Resonance (MR) Procedures

- Yes  No Spinal fixation device
- Yes  No Any type of coil, filter or stent  
If yes, list type: \_\_\_\_\_
- Yes  No Artificial heart valve
- Yes  No Any type of ear implant
- Yes  No Penile implant
- Yes  No Artificial eye
- Yes  No Eyelid spring and/or eyelid weight
- Yes  No Any type of implant held in place by a magnet
- Yes  No Any type of surgical clip or staple
- Yes  No Any IV access port (e.g., Broviac, Port-a-Cath, Hickman, PICC line)
- Yes  No Shunt  
If yes, type: \_\_\_\_\_
- Yes  No Artificial limb  
If yes, what and where: \_\_\_\_\_
- Yes  No Tissue Expander (e.g., breast)
- Yes  No IUD  
If yes, type: \_\_\_\_\_
- Yes  No Surgical mesh  
If yes, location: \_\_\_\_\_
- Yes  No Radiation seeds
- Yes  No Any implanted items (e.g., pins, rods, screws, nails, plates, wires)

## Removable medical devices

- Yes  No Hearing aid
- Yes  No Removable drug pump (e.g., insulin, Baclofen, Neulasta)
- Yes  No Any type of ear implant
- Yes  No Artificial eye
- Yes  No Any type of implant held in place by a magnet
- Yes  No Any type of surgical clip or staple
- Yes  No Medication patch (e.g., nitroglycerine, nicotine)
- Yes  No Artificial limb

# Safety Screening for Magnetic Resonance (MR) Procedures

If yes, what and where: \_\_\_\_\_

- Yes  No Removable dentures, false teeth or partial plate
- Yes  No Diaphragm, pessary

If yes, type: \_\_\_\_\_

- Yes  No Have you recently ingested a "pill cam?"

If yes, date "pill cam" was ingested: \_\_\_\_\_

## Personal

- Yes  No Body piercings

If yes, location: \_\_\_\_\_

- Yes  No Wig, hair implants
- Yes  No Tattoos or tattooed liner
- Yes  No Any hair accessories (e.g., bobby pins, barrettes, clips, extensions, weaves)
- Yes  No Jewelry
- Yes  No Metal-containing clothing material and/or underwear
- Yes  No Magnetic cosmetics and hair care (e.g., magnetic eyelashes, magnetic nail polish)
- Yes  No Electronic monitoring or tagging equipment (e.g., ankle monitor)
- Yes  No Fitness tracker/biometer (e.g., Fitbit)

Yes  No Any other type of surgically implanted medical devices, removable medical devices or personal items not covered above?

If yes, type: \_\_\_\_\_

# Instructions for Patients

1. You will be provided hearing protection during your scan. You are strongly urged to use the earplugs or headphones provided to you during your MR examination, since some patients find the noise levels unacceptable, and the noise levels may affect your hearing if these provided hearing protection devices are not utilized.
2. Remove all jewelry and piercings (e.g., necklaces, pins, rings)
3. Remove all body piercings
4. Remove all hair pins, bobby pins, barrettes, clips, etc.
5. Remove all dentures, false teeth, partial dental plates
6. Remove eyeglasses and hearing aids
7. Remove watches, cell phones and pagers
8. Remove all cards with magnetic strips (e.g., credit cards, bank cards, etc.)
9. Because some clothing may contain metal even when not apparent, the MR technologist will instruct you to remove all clothing and worn/removable items from your body. MR Safe clothing will be provided to you to wear during your MRI scan. This is being done to help ensure your safety during the examination.
10. If you are unable to remove any of the above items please notify the technologist.

**I have read and understand the entire content of this form.**

Patient signature: \_\_\_\_\_

MD/RN/RT signature: \_\_\_\_\_

MD/RN/RT printed name: \_\_\_\_\_

Date: \_\_\_\_\_



# Safety Screening for Magnetic Resonance (MR) Procedures

## FOR MR Office Use Only

Patient name: \_\_\_\_\_ Patient ID # \_\_\_\_\_

Referring Physician: \_\_\_\_\_

Procedure: \_\_\_\_\_ Diagnosis: \_\_\_\_\_

Clinical History: \_\_\_\_\_

### Hazard Checklist for Level 2 MR Personnel

- Yes  No Pulse oximetry device
- Yes  No EKG pads/leads
- Yes  No Endotracheal tube
- Yes  No Swan-Ganz catheter
- Yes  No Extra ventricular device
- Yes  No Arterial line transducer
- Yes  No Foley catheter with temperature sensor and/or metal clamp
- Yes  No Rectal probe
- Yes  No Esophageal Probe
- Yes  No Tracheotomy tube
- Yes  No Guidewires
- Yes  No Halo vest
- Yes  No Other

If yes, explain: \_\_\_\_\_

\_\_\_\_\_

**If any Level 2 MR Personnel checklist items are answered yes, this should be brought to the attention to the covering MR Physician.**

- Yes  No Patient screened with ferromagnetic detector
- Yes  No eGFR indicated for contrast

eGFR value: \_\_\_\_\_ Results date: \_\_\_\_\_

- Yes  No If required, the patient was provided the Medication Guide

### Cleared by:

MR Technologist: \_\_\_\_\_

Physician/Radiologist (if required) \_\_\_\_\_