

***UNIVERSITY OF ST. FRANCIS
SCHOOL OF RADIATION THERAPY***

PROGRAM CATALOG

RADIATION ONCOLOGY*

The complex nature of the cancer disease process involves multiple treatment modalities, with surgery, medical oncology and radiation oncology among the most common. Depending on the location, pathology and state of disease, these methods may be used singularly, in combination or in sequence. Radiation oncology employs ionizing radiation to destroy cancerous tumors while sparing surrounding tissue. An interdisciplinary team of radiation oncologists, radiation physicists, medical dosimetrists, radiation therapists, nurses and support staff plan and deliver the course of treatment. While each team member plays a critical role in the delivery of health services, it is the radiation therapist who administers the radiation to the patient throughout the treatment process.

RADIATION THERAPIST*

Radiation therapist assist in localizing tumors, participate in treatment planning and deliver high doses of ionizing radiation prescribed 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 therapy often involves daily treatments extending over several weeks. This treatment method uses highly sophisticated equipment and requires a great deal of initial planning as well as constant patient care and monitoring. Radiation therapists must maintain a high degree of accuracy and an awareness of safety issues. They also must remain sensitive to the physical and emotional needs of patients.

Radiation therapists must demonstrate an understanding of cancer, radiation biology, radiation therapy techniques, equipment technology, radiation safety and the psychosocial aspects of cancer. The radiation therapist uses professional judgment and critical thinking when assisting with treatment planning, recognizing and resolving equipment problems and treatment discrepancies, anticipating patient needs and concerns and determining when treatment should be withheld until a physician can be consulted.

*(These statements are taken from the American Society of Radiologic Technology's Radiation Therapy Professional Curriculum Guide.)

SCHOOL OF RADIATION THERAPY:

Program Accreditation:

The School of Radiation Therapy is accredited by the JRCERT (the Joint Review Committee on Education in Radiologic Technology.) This certifies that the School meets or exceeds national standards regarding the quality of the program. Further information about accreditation of radiologic science educational programs may be obtained from the JRCERT, 20 N. Wacker Dr., Suite 2850, Chicago, IL 60606-2901, phone (312) 704-5300, www.jrcert.org, or by e-mail: mail@jrcert.org. Program accreditation also insures that graduates are eligible for national certification and state licensure.

Graduate Certification and Licensure:

Successful completion of professional education makes the student eligible to sit for the national certification examination of the American Registry of Radiologic Technologists (ARRT) for radiation therapy. Successful completion of the ARRT certification exam entitles graduates to use the professional designation of their specialty: R.T. (T) "Registered Technologist - Radiation Therapy". For more information about the certification exam or eligibility requirements, contact ARRT 1255 Northland Drive, St. Paul, MN 55120-1155, telephone (612) 687-0048. Many states also require that radiologic science professionals be licensed. ARRT certification is a prerequisite to state licensure in most states, including Illinois. Information on radiation therapy licensure may be obtained by contacting the Illinois Emergency Management Association (IEMA), 1035 Outer Park Dr., Springfield, IL 62704.

Program Sponsorship and Academic Affiliation:

The School of Radiation Therapy is sponsored by the University of St. Francis and is a certificate and/or baccalaureate degree granting program. The certificate/baccalaureate track with the University of St. Francis, is established such that all prerequisite coursework is taken at the University of St. Francis or transferred from an accepted institution of higher education. Upon completion of pre-requisite courses, the student must apply to the radiation therapy professional course sequence. The baccalaureate track is optional for radiographers, *not* a requirement. The certificate track is only open to certified, Associate degreed and/or board eligible radiographers.

Professional Course Sequence and Clinical Affiliation:

The 3-4 semesters of professional education consists of didactic and clinical components. Each student will be given objectives, clinical evaluations and competencies in order to monitor clinical progression through the program.

All students will rotate, by clinical assignment, through a minimum of two affiliated radiation oncology departments.

Graduation Requirements

Students will be eligible for graduation only when all of the following conditions exist:

- ◆ The student has successfully met or surpassed the minimum academic standards of the program which is at least an 80% average in all areas of academic and clinical studies.
- ◆ All time lost over and above the allotted sick/personal days due to tardiness or absence has been made up.
- ◆ The student has successfully completed all objectives and competencies that are required.
- ◆ Any or all probation requirements have been met before completion of the program.
- ◆ Returned all departmental items such as film badge, keys and borrowed texts from the school's library.
- ◆ All additional academic requirements have been successfully completed prior to the graduation date of the program.

All program policies and curriculum are available to all applicants on request. The complete program handbook will be distributed and reviewed with all enrolled students at the start of the program.

***Mission and Goals
For the
School of Radiation Therapy***

School of Radiation Therapy Mission:

Providing academic, clinical and professional education of exceptional value to students, and graduating radiation therapy students with required and desirable entry-level employment skills.

Toward fulfillment of our program mission there are 4 main goals with focus toward student learning and 4 main goals focused toward program effectiveness

Core Goals:

1. Facilitate clinical competence
2. Foster and develop critical, analytical and problem solving skills
3. Foster and develop oral and written communication skills
4. Instill ideals supportive of professional growth and development
5. Maintain an optimal teaching and learning environment
6. Employ admissions processes with the greatest potential for academic success and program completion
7. Facilitate professional practice preparedness as perceived by graduates and employers
8. Demonstrate successful certification and favorable job placement

The Certificate/Bachelor of Science Track

This program is a 2 + 2 program for the traditional college student. The student completes the first two years of the program at the University of St. Francis, at Rock Valley College, or at any articulated community college. During the first two years, the student completes liberal education courses and pre-professional science courses, chooses radiation therapy as the major, and applies for admission to the professional program to complete the degree. During the final two years of the program, the student completes professional courses and clinical experience at the school's affiliated clinical sites and on the University campus.

Transfer credit, tuition costs, application process and financial aide services at the University of St. Francis; should be referred to the current transfer credit coordinator at the university. You may reach the credit coordinator by phone at the main University number- (815)740-3360. For questions at Rock Valley College about these same issues please contact a credit evaluator or advisor at (815)654-4322.

Advanced Standing for Radiographers

This track is designed for students who are graduates of a JRCERT accredited Radiography Program. Eligible applicants must be ARRT Certified in Radiography or board eligible upon entry into the program and hold an Associate's level degree. Board eligible applicants must successfully complete the ARRT certification examination by the first month of the program. The length of the program for this track is 17-22 months. Some credit may be given for imaging related coursework. Upon successful completion of the program, students graduate with a certificate of completion and are eligible to take the ARRT examination in Radiation Therapy.

Admission to Professional Education:

Applicants in either track who apply to the school of radiation therapy are required to submit an application and all required materials for review by the advisory committee on or before December 15th, to qualify for the following year's school term. Baccalaureate track applicants are encouraged to send their application to the program director of the school at the beginning of their freshman year at the college.

The difference between the two tracks is in the number of college courses completed before admission to the professional coursework, earning academic credit, availability of financial aid, tuition cost and previous professional background in the radiologic sciences. Both tracks satisfy the educational requirements for registration and employment as a radiation therapist. Each completed application will be reviewed for possible placement within the program. Policies and procedures for admission to professional education are outlined in this catalog.

Program Calendar:

Professional education is completed in two academic years, beginning in the fall semester of the junior year. The calendar is divided into Professional Phases/Semesters I, II, III and IV, during which the student attends 32 to 40 hours per week in the classroom, laboratory or clinical site(s). The student is required to attend classes during the summer between the third and fourth years in the program in order to complete all required clinical experiences. The program concludes at the end of the spring semester of the fourth year. The radiography/certificate track students will take a limited course load during Phase/Semester I of the program.

Copies of upcoming years' program calendars are included at the end of this brochure. Students complete alternating weeks of didactic and clinical education. The 38 weeks of didactic education include classroom courses and laboratories. The 45 weeks of clinical education are spent in the hospital observing, assisting and performing patient procedures and treatments. Together, didactic and clinical education prepares students for success as practicing radiologic science professionals.

Registration and Tuition:

Certificate/Baccalaureate Track

While enrolled in the program, the student registers for the required professional courses at the University of St. Francis. The student pays full time tuition to USF for the four semesters (phases) of Professional Education. For information about tuition rates, please consult the most current edition of the University of St. Francis Catalog or by contacting USF at 1-800-735-7500.

Certificate/Radiographer Track

At the time of this catalogue publication, tuition costs have not yet been determined for certificate applicants for the academic year 2016-2017.

Academic Credit:

Clinical courses are awarded 1 credit hour per 100 contact hours, and didactic courses are awarded 1 credit hour per twenty contact hours.

Students enrolled in the certificate/baccalaureate track earn academic credit from the University of St. Francis for all courses in each of the four professional phases (semesters) of enrollment, totaling 64 semester hours. Radiography/Certificate track students may not receive academic credit for these courses from the University of St. Francis. The certificate / baccalaureate track is optional for the certificate / radiography track. For more information on how a student may earn academic credit for completion of all courses, please contact the University of St. Francis Office of Transfer Student Admissions at 1-800-735-7500.

Transfer Credit:

For transfer credit with the University of St. Francis, information may be obtained from the USF Admissions and Registrar departments.

Book Fees:

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1/01; 11/01, 3/02, DRM.rev.3/03,1/05,3/06LL,4/07,7/08, 06/10, 04/11,5/12, 2/16

The student is responsible for the cost of required textbooks that are for their professional library. Book fees will vary depending on current publisher pricing and instructor textbook selection. Estimated total book fees for the two years of professional education is \$1000-\$1500. Students are required to purchase the texts at the beginning of each phase/semester. Certain texts required by the student will be used for more than one course. Select texts are available for rental.

Housing and Board:

The student is responsible for locating suitable housing while enrolled in the professional portion of the program. There are several options for lodging including University dormitories or privately owned, local rental units. Accepted students are encouraged to secure housing immediately following acceptance.

Other Student Expenses:

Students are responsible for the purchase of uniforms, the cost of a pre-entrance physical examination and the cost of a **criminal background check and drug screening**. As some courses are offered in an online format, students need access to a computer with internet access (minimum 56K Modem).

Pre-entrance Physical Exam and Health Information:

A pre-entrance physical and magnetic field safety questionnaire (for observations in Magnetic Resonance Imaging suites) are required prior to enrollment in professional education. This serves to certify the student's health status, and to provide documentation of the student's ability to fulfill the essential functions of the radiologic sciences professional. Additional needed components of the physical are: **Negative TB skin test, documentation of 2 MMR vaccinations or documentation of positive measles, mumps and rubella titers, positive Hepatitis B titer or documentation of Hepatitis B vaccination series, documentation of varicella (chickenpox) immunity: disease history or one dose of varicella vaccine prior to age 13 or positive varicella titer, and a copy of CBC blood test.** Those students seeking a baccalaureate degree from the University of St. Francis must also comply with the University's student health policy. A copy of the essential functions is contained in this catalogue and may be helpful for the examining physician to view at the time of your appointment. The student will be provided with a pre-placement physical form, which can be completed by the examining physician. The forms must be submitted to the University student health department. During the program orientation period, students will present the department of student health with all necessary health information for review and also submit to **urinary drug screen**.

Enrolled students may utilize the Student Health Services Office.

All enrolled students must complete at least one hospital safety fair, which reviews infection control, universal precautions, HIPAA privacy policy and general hospital safety.

Health and Dental Plan

Health and dental insurance for the school year is the responsibility of the student. The students are covered under professional liability insurance during school hours only.

The primary insurance company of the student is to cover medical expenses for long term care if needed.

Student Assistance Program

The Student Assistance Program is designed to help students who are experiencing personal or family problems that may have an adverse effect on their academic performance.

Students can make appointments directly with the program or may be referred there by school faculty if they see the need.

Students who have been referred to the assistance office must keep appointments there and follow through on any counselor recommendations. If the student does not abide by the guidelines of such counselors the Program Director may consider non-compliance as grounds for dismissal.

Financial Aid:

Students of the School of Radiation Therapy, who are enrolled as full time students at the University of St. Francis, are eligible for all available USF student financial aid programs. For financial aid information, please consult the current USF Catalog, or call the USF Financial Aid Office at (815) 740-3403 for assistance. Radiographers enrolled in the certificate track are not eligible for financial aid through the University while enrolled in the radiation therapy program.

Policy and Procedures:

All enrolled students will receive a copy of the program handbook at the start of classes. Any applicant who would like a current student handbook may inquire by calling the program office or writing the current Program Director of the school.

Academic Policies:

The School of Radiation Therapy employs the following grading scale:

A= 94-100

B= 93-87

C=80-86

F=79 or Below

Students are required to maintain an 80% grade average in all required didactic and clinical courses. A student who fails to maintain the minimum required grade average is subject to probation. Failure to improve the grade during probation to the minimum 80% would result in student dismissal from the program.

A student may also be placed on probation for clinical deficiencies or unprofessional behavior. Each student is allowed only two probation periods during enrollment and dismissal from the program results when a third probation would be issued.

Disciplinary Procedures:

While enrolled in the School of Radiation Therapy, all students must conduct themselves professionally. Students must abide by the Professional Code of Ethics that are enclosed at the end of this catalog, and comply with the policies and procedures of affiliated hospitals and cancer centers. Any student who does not comply with policies and standards is subject to disciplinary action. The School of Radiation Therapy Executive Committee is responsible for all decisions regarding student dismissal. The Executive Advisory Committee consists of the Program Director, Clinical Coordinator, a radiation oncology department manager, a program alumni, medical physicist, College of Arts and Sciences faculty member and dosimetrist. The School of Radiation Therapy also has a Grievance Committee that is responsible for student grievances and appeals of disciplinary procedures.

Due Process

The following procedure should be used if the student has any complaints relative to their status in the school. When the student initiates this process, they are informed that their student file may need to be reviewed by members of advisory, grievance and/or appeals committees. All documents and meetings regarding the student will be confidential. The student is counseled on why their file may need reviewed and on the due process policy. Original documents relevant for each process will be kept in the student's file for documentation.

All student complaints must initially be made by the student in writing. The deadlines will be discussed with the student at the initial counseling session discussing the disciplinary actions. The student will sign the document with the deadlines for the due process, which will document they are acknowledging the date and time restrictions for the next step(s) in the process.

The Executive Advisory Committee and Grievance Committee are the individuals involved in due process procedures. In the event that the student is not satisfied with decisions made by these committee members, they may request an appeals hearing. Steps in the procedure are as follows:

1. Initial communication and discussion regarding the complaint, may be done verbally with the instructor. If after meeting with the instructor, the student's issue is not satisfactorily resolved; the student must submit a written grievance to the program director within three business days of the first meeting.
2. The Program Director will schedule a meeting with the Executive Advisory Committee to evaluate the grievance. The Executive Advisory Committee will provide the student with a written response within five working days from the date of the written grievance.
3. Executive Advisory Committee Members:
 - Radiation Oncology Center Manager
 - Program Alumni
 - Radiation Oncology Center Physicist
 - Radiation Oncology Center Dosimetrist
 - School of Radiation Therapy Program Director
 - School of Radiation Therapy Clinical Coordinator
 - USF, College of Arts and Sciences faculty member

4. If the response of the Executive Committee does not resolve the grievance, the student may request a hearing before the Grievance Committee. This request must be in writing and within three working days of receipt of the Executive Committees decision.
5. The Grievance Committee, consisting of five members who are external to the Executive Advisory Committee. A meeting of the Grievance Committee will be scheduled within five working days of receipt of the written request for a hearing. All student records are available for review by this committee.
6. **Grievance Committee Members:**
 - ◆ Risk Management department representative
 - ◆ Manager of the Student Learning Center
 - ◆ Human Resources department representative
 - ◆ USF Marketing department representative
 - ◆ Dean, College of Arts and Sciences
7. The Grievance Committee hearing is the last phase of the process. All decisions made by this entity will be final. A certified letter will be sent to the student with the decision of the Grievance Committee within 5 business days of the hearing.

Refund Policies:

Book fees are non-refundable. Students who are dismissed from the School of Radiation Therapy are not eligible for total tuition refunds. The student enrolled in the cert. / bachelors track is responsible for initiating and applying for all refunds with USF. All other students are responsible for initiating the process with the program director of the school. The schedule for refunds for the certificate track only goes as follows:

<i>NUMBER OF WEEKS ATTENDED IN THE CURRENT PHASE:</i>	<i>% TUITION REFUNDED</i>
1-3 weeks	50%
4 weeks	25%
5 weeks	0%

School of Radiation Therapy Program Admission Policy

Non-Discrimination Statement

The School of Radiation Therapy provides equal opportunity for admission to all individuals regardless of race, color, religion, gender, age, disability or national origin.

Academic Admission Standards

I. Certificate / Radiographer Track

- A. Associate's level degree with a GPA of 2.7 or greater
- B. The applicant must be a registered radiologic technologist by the ARRT or the graduate of a JRCERT accredited radiography program and registry eligible before starting the school term.
- C. If registry eligible, the student shall take and pass the ARRT examination by the first month in the program or will be dismissed from the program.
- D. Additional required academic requirements at the college level with a 2.7 GPA are (courses must have been taken at an institution for higher education):
 1. **Introduction to Computers** (The radiography school computer course will be evaluated on an individual basis by the program director, i.e. course syllabus and outlines from course. The course content will be compared to the ASRT curriculum guide for Radiation Therapy)
 2. **College Algebra**
 3. **Pre-calculus Mathematics**
 4. **Speech/Verbal Communication**
 5. **Composition or College Writing I**
 6. **Human Anatomy**
 8. **Human Physiology**
 9. **Written Communication**

E. Completion of Academic requirements:

1. Students who have not completed the additional academic requirements in section D, prior to being admitted into the program, will be required to complete these course(s), concurrently while enrolled in the program at the discretion of the program director. Students, who do not complete all of the additional academic requirements prior to the scheduled program completion, will not be eligible to graduate from the School of Radiation Therapy.
2. Students needing to complete the academic requirements will sign a letter upon admissions documenting that they are aware of the requirements to graduate from the program.
3. It is the student's responsibility to confirm the availability of the needed courses with area colleges/universities. Regular school hours will not be adjusted to complete the additional academic requirements; these courses will need to be completed after regularly scheduled school hours. The student's ability to complete both the programs didactic and additional academic requirements concurrently is at their own discretion. Students are advised of the full didactic load during the length of the

program and evaluate their own ability to successfully complete the outside requirements at the college level.

4. The academic courses listed in section D, must be successfully completed with a C average to fulfill the requirements of the program.

E. **Recommended but no required:** The following courses are recommended, but not required:

- ◆ Principles of Biology
- ◆ Foundations of Chemistry or General Inorganic Chemistry
- ◆ General Physics I or Mechanics & Heat
- ◆ General Physics II or Waves, Electricity, Light and Modern Physics

F. **Recommended but not required:** College General Education/Liberal Arts courses for the Certificate/Radiographer Track: The following Courses are recommended, but not required.

- ◆ College Writing II or Composition and Literature
- ◆ Introduction to Literature or a Literature Elective
- ◆ Foundations of Western Thought or Humanities Elective
- ◆ Non Western History Elective
- ◆ General Psychology
- ◆ Human Growth & Development or Developmental Child Psychology
- ◆ Introduction to Philosophical Thinking or a Philosophy Elective
- ◆ Contemporary Issues in Ethics
- ◆ Introduction to Theology or A Theology Elective
- ◆ Death and Dying

II. Certificate / Baccalaureate Track

- A. Completion of the University of St. Francis pre-professional curriculum for the Bachelor of Science in Radiation Therapy. - OR- Completion of the equivalent curriculum at Rock Valley College (or any articulated community college) with acceptance of transfer credit by the University of St. Francis. Refer to the section of the catalog-titled course listing of pre-requisites.
- B. A 2.7 minimum cumulative grade point average is required.

Professional Admission Standards

1. The applicant must be 18 years of age before the date of enrollment in the professional education, in order to comply with radiation protection regulations.

2. Due to the nature of employment as a radiologic sciences professional, the applicant must be able to perform the “Essentials Functions of a Radiation Therapist”, as outlined within this catalog.
3. The applicant must complete the required pre-placement physical examination to verify ability to perform “Essential Functions”. The physical examination form will be supplied to the student but the examination will be at the student’s expense. An accepted cert/bachelors student, who fails to provide the required physical form by August 1, before the scheduled fall term, will not be enrolled in the program. The deadline for the cert/radiography track is December 15th.
4. The applicant must be of good moral character, as verified through applicant references. Criminal background checks are required for admission to the program, and are often required by employers. Additionally, a person with a criminal conviction may not be eligible for ARRT certification. For questions on eligibility for the ARRT examination contact: ARRT 1255 Northland Drive, St. Paul, MN 55120-1155, telephone (612) 687-0048.
5. The school also requires students, to abide by all Drug and Alcohol Free institutional policies within the organization.

Admission Procedures

The Executive Advisory Committee makes all admission decisions for the School of Radiation Therapy. Although the completion of the pre-professional course work will satisfy the *academic* admission requirements for both the baccalaureate track and the certificate radiography track, it does not guarantee admission. Past academic performance, recommendation and interview results are considered when making decisions regarding admissions.

Application Process

To apply for admission, the applicant must submit:

1. A completed application form on or before December 15th, for the next school term, directly to the School of Radiation Therapy.
2. The applicant must provide official college transcripts as required by the University Registrar. Transcripts from hospital-based radiography programs should be submitted to the program director.
3. The applicant needs to submit three current letters of recommendation and have them sealed and sent directly to the School. At least two letters of reference must come from faculty members of the previous radiography program or faculty from the college/university.
4. The Executive Advisory Committee evaluates applications, and qualified applicants are invited to an interview.

Selection Process:

The Executive Advisory Committee reviews completed applications. Selection is based on review of the following criteria:

1. Initial Application Contents: (completed application, references, academic standing with regard to Ave. GPA, completion of pre-requisites, and performance in Math and Science courses.)
2. Overall academic performance especially at the post-secondary level.
3. Required academic pre-requisites completed for either track, before coming into program
4. Academic performance in math and science in Post-Secondary Education
5. Math-Physics Test
6. Personal Interview scores
7. Reference letter scores

The committee reserves the right to select candidates at their discretion, based on characteristics other than the ones listed above. The committee will not discriminate based on race, religion, ethnic background, age or color.

Interviews are typically conducted during the late winter and selections are made by March 30th. Candidates will receive letters of acceptance/denial at this time.

Advanced Standing

The School of Radiation Therapy offers advanced placement to well-qualified students after individualized case review. The school recognizes the radiography student's professional background. These applicants will have a limited course load during Phase I, but must complete all courses in Phases II-IV of the program. Non-radiography advanced standing applicants will be required to submit application and undergo review by executive advisory board members before being considered for admission.

Essential Functions of a Radiation Therapist

Description of Profession of Radiation Therapy:

(Taken from the Scope of Practice for the Radiation Therapist by the ASRT)

Radiation therapy is the art and science of treatment delivery to individuals to restore, improve, and enhance performance; diminish or eradicate pathology; facilitate adaptation to the diagnosis of malignant disease; and promote and maintain health. Since the major focus of radiation therapy is the delivery of prescribed dosages of radiation to individuals from external beam and/ or brachytherapy radiation sources or hyperthermia units, the radiation therapist's concern is with those factors that influence radiation dose delivery, individual well-being, and responsiveness to treatment, as well as those factors serving as barriers or impediments to treatment delivery.

The practice of radiation therapy is performed by competent radiation therapists who deliver care to the patient in the therapeutic setting and are responsible for the simulation, treatment planning, and administration of a prescribed course of radiation therapy and/ or hyperthermia. Additional related settings where radiation therapists practice include education, management, industry, and research.

Persons contemplating educational preparation to enter this profession should be aware of the essential functions of the radiation therapist in order to guide their career decision making and estimate their success in the field. According to the Scope of Practice, the following are essential functions of the profession, which are further defined by the specific activities and abilities, which underlie them.

Scope of Practice of the Radiation Therapist:

1. Providing radiation therapy services by contributing as an essential member of the radiation oncology treatment team through provision of total quality care of each patient undergoing a prescribed course of treatment by:

- Communicating effectively with patients, their families and other members of the radiation oncology team.
- Being physically, intellectually and emotionally able to respond to emergency situations, providing first aid, CPR and other patient care until a physician or nurse arrives.
- being capable of handling stressful situations, making informed decisions and giving emotional support to patients and their families
- Listening and responding to auditory warnings such as Geiger counter, alarms in the treatment room, hospital fire announcements and monitoring of patient sounds during treatment.
- performing required mathematical calculations
- documenting accurately and legibly, treatment setups, doses and calculations
- Using good judgment in regard to situations in which treatment should be held until consultation with the radiation oncologists.

2. Evaluating and assessing treatment delivery components by:

- manually performing quality assurance and quality control checks
- observing monitors and scales to not diverge from expected readings
- detecting equipment malfunctions and taking appropriate action

3. Providing radiation therapy treatment delivery services to cure or improve the quality of life of patients by accurately delivering a prescribed course of treatment by:

- Assisting patients in transferring from a wheelchair or cart to the treatment couch and becoming correctly positioned for treatment, at times including lifting.
- Operating, handling and manipulating equipment necessary to administer radiation therapy.
- using strength, coordination and dexterity to lift and position cerrobend blocks, electron cones, wedges and other accessories, up to 40 pounds in weight
- visually observing patients before, during and after treatment, setting field size and monitor unit settings, aligning treatment fields and blocks, and reviewing radiographs and port films
- constructing immobilization devices

4. Evaluating and assessing daily, the physiologic and psychological responsiveness of each patient to treatment delivery by:

- Communicating effectively with patients and their families.
- listening carefully to patient and family concerns
- observing patients for signs of radiation side effects and psychological change
- using good judgment in referring patients to other members of the radiation oncology team appropriately
- providing appropriate care specific to the age of the patient
- providing effective patient education

5. Maintain values congruent with the profession's code of ethics and scope of practice as well as adhering to national, institutional and / or departmental standards, policies and procedures regarding treatment delivery and patient care. As a health care professional, the radiation therapist:

- Advances the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
 - * strictly maintain confidentiality of patient information
 - * respecting and acting appropriately toward all patients, families and fellow colleagues
 - * assuming responsibility for personal actions and reporting errors in patient treatment
 - * Supporting patient rights, particularly those of informed consent and advance directives.
- Delivers patient care and service unrestricted by concerns of personal attributes of the nature of the disease or illness and nondiscriminatory with respect to race, color, creed, sex, age, disability, or national origin.
- assesses situations; exercises care, discretion, and judgement; assumes responsibility for professional decisions; and acts in the best interest of the patient

- adheres to the tenets and domains of the scope of practice for radiation therapists
- Actively engages in lifelong learning to maintain improve, and enhance professional competence and knowledge.

***Program Courses During Phase I - IV
for the
School of Radiation Therapy***

Professional Education:

The professional curriculum in the School of Radiation Therapy is also designed according to the standardized ASRT Curriculum Guide for Radiation Therapy. Due to anticipated changes in the ASRT

requirements, the program reserves the right to modify its professional curriculum as necessary to insure the quality of the program and its continued accreditation. Any changes will be promptly communicated to all students, and will be accomplished within the professional education.

The School of Radiation Therapy's didactic curriculum, in combination with the clinical education acquired, will provide the student with a solid background in all areas of radiation therapy. The student should gain from these courses the information necessary to become a competent radiation therapy technologist. A course listing is on page 22 and course descriptions are on pages 23-35 of this *Catalog*.

***School of Radiation Therapy
Course Numbers and Credits***

Professional Phase/Semester I

Course Number	Course Title	Credits
RADT 305	Radiotherapy Clinical Experience I	3

RADT 310	Introduction to Clinical Radiologic Science *	2
RADT 330	Methods of Patient Care *	3
RADT 350	Radiation Physics I *	2
RADT 380	Radiographic Procedures I *	3
RADT 370	Radiographic Imaging*	3
Total Credits	* online delivery	16

Professional Phase/Semester II

Course Number	Course Title	Credits
RT 43. 306	Radiotherapy Clinical Experience II	4
RT 43. 312	Principles & Practices of Radiation Therapy I	1
RT 43. 335	Ethics and Law in the Radiologic Sciences *	2
RT 43. 360	Radiobiology/Radiation Protection *	2
RT 43. 341	Oncology I	2
RT 43. 356	Treatment Planning I	2
RT 43. 357	Radiation Therapy Physics I	2
RT 43. 381	Simulator Procedures I	1
Total Credits	* online delivery	16

Professional Phase/Semester III

Course Number	Course Title	Credits
RT 43. 405	Radiotherapy Clinical Experience III	4
RT 43. 420	Sectional Anatomy *	2
RT 43. 412	Principles & Practices of Radiation Therapy II	2
RT 43. 441	Oncology II	2
RT 43. 457	Radiation Therapy Physics II	2
RT 43.461	Introduction to Health Administration I *	1
RT 43. 456	Treatment Planning II	2
RT 43.470	Computed Tomography and Digital Imaging	2
RT 43. 481	Simulator Procedures II	1
Total Credits	* online delivery	18

Professional Phase/Semester IV

Course Number	Course Title	Credits
RT 43. 406	Radiotherapy Clinical Experience IV	4
RT 43. 462	Intro to Health Services Administration II *	1
RT 43. 416	Radiation Therapy Senior Seminar	1
RT 43. 442	Oncology III	2
RT 43. 450	Quality Management*	2
RT. 43. 490	Radiation Therapy Registry Review	3
RT. 43. 482	Simulator Procedures III	1
Total Credits	* online delivery	14

Total Credits for Radiation Therapy Professional Education

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School of Radiation Therapy Course Descriptions

PHASE I COURSES

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COURSE NAME: Radiation Therapy Clinical Experience I
COURSE NUMBER: RADT 305
PHASE: I
CREDIT HOURS: 3
RECOMMENDED
PREREQUISITES: RT43.101 Introduction to Radiologic Sciences

COURSE DESCRIPTION

This course is designed within the Clinical Education Plan of the School of Radiation Therapy. It is a step by step progression of the student through a series of increasingly complex clinical rotation assignments within the Radiation Oncology Department. It begins with the student observing in assigned areas within the Medial Imaging Department on the Fridays of class weeks during the initial 8 weeks of the program. This allows the student to gain an introductory understanding of the functioning of the healthcare setting while completing the initial portions of the Phase I curriculum in Patient Care, Introduction to Radiologic Sciences and Radiographic Procedures courses. Following fall break, each student is assigned to a series of clinical rotations that allows the student to progress from observing to assisting in performance of radiation therapy procedures. Emphasis is placed on familiarization of departmental procedures and patient interactions. The observation during this time will acquaint the certificate/baccalaureate student with the hospital setting.

COURSE NAME: Radiographic Procedures I
COURSE NUMBER: RADT 380
PHASE: I
CREDIT HOURS: 3
RECOMMENDED
PREREQUISITE: RT 43.101 Intro. to Radiologic Sciences

COURSE DESCRIPTION:

Through anatomy review, positioning demonstrations, and presentation of radiographs of the human body, the student learns the routine examinations and selected non-routine radiographic examinations of the following body segments: chest, abdomen, upper extremity, digestive system and urinary system. Appropriate positioning terminology will also be discussed. This course is integrated with the Radiotherapy Clinical Experience course and is designed to promote student clinical competence in all assigned simulations as well as a thorough knowledge of related anatomical and positioning theory and concepts. This course utilizes online delivery.

COURSE NAME: Introduction to Clinical Radiologic Sciences
COURSE NUMBER: RADT 310
PHASE: I
CREDIT HOURS: 2
RECOMMENDED
PREREQUISITE: RADT 101 Intro to Radiologic Sciences

COURSE DESCRIPTION:

This course provides the student with an overview of radiography and radiation therapy, and their roles in health care delivery. The structure of the health system and roles of various departments and health professionals are outlined. Other introductory topics are included to ease the student's transition into clinical experience, including: introduction to quality customer service, dynamics of learning, the history of medicine and radiologic technology, imaging equipment and examinations, ethics, law and professional development in radiologic technology, economics of radiology, quality assurance, and radiation safety. The professional organizations involved in the certification of radiologic professionals and accreditation of educational programs are presented. This course is delivered online.

COURSE NAME: Medical Terminology (pre-requisite course effective fall 2008)

COURSE NUMBER: RADT 102

PHASE I

CREDIT HOURS 1

REQUIRED

PREREQUISITES BIO 185 Foundations of Anatomy and Physiology

RECOMMENDED

PREREQUISITES: Human Anatomy and Physiology I & II

COURSE DESCRIPTION:

This course provides the student with the elements of the language of health care and radiologic technology. The origins of medical terms, the system of word building and the use of abbreviations and symbols are presented. Emphasis is placed on terminology pertinent to the radiologic sciences and patient care, and the application of this knowledge in the interpretation of orders and reports. A body systems approach is used, and a review of the structure and function of each system is included. This course is an independent study.

COURSE NAME: Methods of Patient Care

COURSE NUMBER: RADT 330

PHASE: I

CREDIT HOURS: 3

RECOMMENDED

PREREQUISITES: General Psychology
Human Growth and Development

COURSE DESCRIPTION:

This course provides the student with the basic concepts of patient care, including consideration for the physical, developmental and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as: infection control, patient assessment, patient education, venipuncture and contrast injection, pharmacology, and interacting with the terminally ill. The course includes certification in cardiopulmonary resuscitation and clinical demonstration of patient care skills. This course is delivered in online format.

COURSE NAME: Radiation Physics I

COURSE NUMBER: RADT 350

PHASE: I

CREDIT HOURS 2

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REQUIRED PREREQ: Math pre-requisites for Statistics
RECOMMENDED PREREQUISITES: General Physics I and II
Found. Of Inorganic, Organic, & Biological Chemistry

COURSE DESCRIPTION:

Building on the concepts of atomic structure and electromagnetism, this course covers the nature of radiation, the equipment used to produce radiation and the medical applications of radiation. Covered topics include: the electromagnetic spectrum, radioactivity and half life, x-ray production and characteristics, the effects of technique selection on beam quality and quantity, the interaction of radiation with matter, and the circuitry and design of radiologic equipment. Emphasis is placed on clinical applications of physics concepts in the safe operation of high voltage radiologic equipment. This course is offered in online format

COURSE NAME: Radiographic Imaging
COURSE NUMBER: RADT 370
PHASE: II
CREDIT HOURS: 3
REQUIRED PREREQ: RT 43. 350 Radiologic Physics I
Or Graduate of Accredited Radiography program

COURSE DESCRIPTION:

This course provides the student with the knowledge of radiographic films and processing, factors that govern and influence the production of the radiographic image, and the use of accessory radiographic devices. Covered topics include film construction and characteristics, film processing chemistry and equipment, beam filtration, beam restriction, intensifying screens, the control of scattered radiation, radiographic grids, technique formulation and exposure calculations. The radiographic quality factors of density, contrast, recorded detail and distortion – and their contributions to production of radiographs of high diagnostic quality are emphasized. The course includes laboratories and demonstrations. The student must integrate radiographic imaging concepts with procedural concepts in the performance of radiologic procedures. This course is offered in online format.

COURSE NAME: Radiation Therapy Clinical Experience II
COURSE NUMBER: RADT 306
PHASE: II
CREDIT HOURS: 4
REQUIRED PREREQUISITES: RT43.305 Radiotherapy Clinical Experience I or Graduate of Accredited Radiography program

COURSE DESCRIPTION

This course is a continuation of Radiotherapy Clinical Experience I and includes several clinical rotations in the following areas: Physics, Patient Care, Linear accelerators, Simulator. The student must meet the clinical objectives of each assignment in order to progress to the next phase. Emphasis is placed on student attainment of clinical competency in the performance of treatment procedures, the synthesis and application of concepts learned in all segments of the curriculum, and the continuing professional development of the student Radiation Therapist.

COURSE NAME: Principles and Practices of Radiation Therapy I
COURSE NUMBER: RADT 312
PHASE: II

CREDIT HOURS 1
REQUIRED PREREQ: **RADT 330 Methods of Patient Care**
RADT 310 Introduction to Clinical Radiologic Sciences
Or Graduate of Accredited Radiography program

RECOMMENDED
PREREQUISITES **College Algebra or math prerequisite**
Principles of Biology

COURSE DESCRIPTION:

Principles and Practices of Radiation Therapy present an introduction to the unifying themes that underlies Radiation Therapy as a treatment modality with the central theme is an introduction to the concepts of Radiation Therapy. This course is designed to instruct student radiation therapists on the fundamental theories of radiation oncology: orientation to the field of radiation therapy; historical perspectives in the practice of radiation therapy; treatment modalities in the cure or palliation of cancer; cancer statistics; cancer overview; cancer management team; carcinogens and its process; etiology and epidemiology; external radiation therapy equipment; brachytherapy applications; methods of detection and diagnosis; patient care and psychological needs in radiation oncology. Additionally the student will gain knowledge in principles of pathology, surgical oncology, medical oncology and pharmacology.

COURSE NAME: **Ethics and Law**
COURSE NUMBER **RADT 335**
PHASE **II**
CREDIT HOURS **2**
REQUIRED PREREQ: **RADT 330 Methods of Patient Care or**
Graduate of Accredited Radiography program

RECOMMENDED
PREREQUISITES: **Introduction to Philosophical Thinking**
Contemporary Issues in Ethics
Death and Dying

COURSE DESCRIPTION:

This course is designed to provide the student with foundation and parameters of professional practice and the legal and ethical responsibilities of health care and the radiologic sciences. Covered topics include a discussion of the radiation therapist's major areas of responsibility in the delivery of health care, patient rights, patient autonomy, diversity, sociological conditions, informed consent, ethical theories and behaviors, inter-relatedness of standards of care, law, ethical standards and importance of competence will be examined. Additionally, law and regulations affecting health care and the radiation therapist in employment, employment contracts, liability and the litigation process will be examined. The course will also cover extensively the topic of death and dying. The topic of death and dying will be explored by studying past philosophers, research, studying Elizabeth Kubler-Ross's work, group participation by discussing psychosocial behavior on death and dying, observation during support groups, guest lectures, field trip to local funeral home and in the clinical area observe patients and families dealing with death and dying. This course is offered in online format.

COURSE NAME: **Radiobiology and Radiation Protection**
COURSE NUMBER: **RADT 360**

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PHASE: II
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.350 Radiologic Physics I or
Graduate of Accredited Radiography program

RECOMMENDED

PREQUISITES: Principles of Biology

COURSE DESCRIPTION:

The radiation biology segment of this course provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on biological molecules and organisms and factors affecting biological response are presented. Covered topics include: early and late effects of radiation exposure, epidemiological studies of radiation effects, and the acute radiation syndromes.

The radiation protection segment of this course provides the student with an overview of the principles and practices of radiation protection. The responsibility of the radiologic sciences professional in providing radiation protection to the patient, personnel and the public is emphasized. The concepts covered include: ALARA (As Low As Reasonably Achievable), the dose limiting standards, radiation detection and measurement, radiation protection regulations, advisory and regulatory agencies and their roles, and clinical applications of radiation protection principles. This course is delivered in on line format.

COURSE NAME: Oncology I
COURSE NUMBER RADT 341
PHASE II
CREDIT HOURS 2
REQUIRED PREREQ: Anatomy and Physiology
RT 43.320 Medical Terminology or
Graduate of Accredited Radiography program

RECOMMENDED

PREREQUISITE: Principles of Biology
Human Growth and Development

COURSE DESCRIPTION:

This course will provide the student with the fundamentals of clinical applications in Radiation Oncology and Pathology. Malignant & benign conditions by individual tumor sites will be covered during this course. Topics to be covered in each tumor site are: etiology & epidemiology, histopathology pathogenesis, presenting symptoms, patterns of growth, metastatic behavior, staging & grading systems, prognosis, and methods of treatment.

COURSE NAME: Treatment Planning I
COURSE NUMBER RADT 356
PHASE II
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.350 Radiologic Physics I /or
Graduate of Accredited Radiography program

COURSE DESCRIPTION:

Treatment planning course is designed to establish factors that influence and govern clinical planning of patient treatments. Encompassed are treatment machines, isodose descriptions, patient contouring, radiobiological considerations, dosimetric calculations, compensation, brachytherapy and clinical application of treatment beams. Optimal treatment planning is emphasized along with particle beams, calibration and related equipment. Stereotactic, brachytherapy and emerging technologies are presented. Class demonstrations/laboratories and projects are incorporated to complement specific content areas and are focused on clinical applications.

COURSE NAME: Radiation Therapy Physics I

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COURSE NUMBER: RADT 357
PHASE II
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.350 Radiologic Physics I /or
Graduate of Accredited Radiography program

COURSE DESCRIPTION:

Content is designed to review and expand concepts and theories in the radiation physics course. Fundamental physical units, measurements, and interaction with matter will be reviewed as needed from Radiation Physics I. Topics expanded on are: detailed analysis of the structure of matter, properties of radiation, nuclear transformation, treatment units used in external radiation therapy, measurement and quality of ionizing radiation produced, absorbed dose measurement, dose distribution and scatter analysis.

COURSE NAME: Simulator Procedures I
COURSE NUMBER: RADT 381
PHASE: II
CREDIT HOURS: 1
REQUIRED PREREQ: RT 43.380 Radiographic Procedures I
RT 43.310 Introduction to Clinical Radiologic Science
Or Graduate of Accredited Radiography program

COURSE DESCRIPTION:

Simulation Procedures provides the student with a concrete set of procedures with which to perform simulations and apply the fundamental theories of radiation therapy. The concepts covered are: equipment used for simulations, processors, film cassettes, magnification, positioning terminology, exposure techniques, anatomy review, anatomical body parts on diagnostic films, tumor localization, beam directional devices, patient immobilization devices, contouring methods, and patient positioning for each body site. The fundamental applications covered are: lung, brain, head and neck, pelvis, breast, extremities, and Hodgkin's. Course requirements include applying and performing fundamental applications that are necessary for simulations, class participation during classroom and laboratory demonstrations and written examinations.

COURSE NAME: Radiation Therapy Clinical Experience III
COURSE NUMBER: RADT 405
PHASE: III
CREDIT HOURS: 4
REQUIRED PREREQUISITES: RT43.305 Radiotherapy Clinical Experience II
RT 43.357 Radiation Therapy Physics I
RT 43.356 Treatment Planning I
RT 43.381 Simulator Procedures I

COURSE DESCRIPTION

This course is a continuation of the junior level Radiotherapy Clinical Experience, utilizing clinical rotation assignments. The course emphasizes the continued development of clinical competence and professional development.

COURSE NAME: Principles and Practices of Radiation Therapy II
COURSE NUMBER: RADT 43.412
PHASE III
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.312 Principles and Practices of Radiation Therapy I
RT 43.357 Radiation Therapy Physics I
RT 43.356 Treatment Planning I
RT 43.360 Radiobiology/Radiation Protection

COURSE DESCRIPTION:

This course is a continuation of Principles and Practices of Radiation Therapy I and includes calculations for TAR, PDD, Gap, Extended Field and Mayneords Formula. Included in the course are the components of radiobiology in radiation therapy, building on the radiobiology course in phase II.

COURSE NAME: Sectional Anatomy
COURSE NUMBER RADT 43.420
PHASE III
CREDIT HOURS 2
REQUIRED PREREQ BI 185 Foundations of Human Anatomy & Physiology
Or Graduate of Accredited Radiography program

COURSE DESCRIPTION:

This course provides the student with an understanding of anatomy from a three dimensional perspective. Student comprehension of gross anatomy and patient positioning is enhanced through the observation of anatomy from a transverse, sagittal, and coronal perspective. Clinical application of information to the cross sectional imaging modalities of Computed Tomography and Magnetic Resonance Imaging is provided. The course utilizes a body regions approach to sectional anatomy, and emphasizes the location and relative position of the structures studied. This course is an independent study.

COURSE NAME: Oncology II
COURSE NUMBER RADT 441
PHASE III
CREDIT HOURS 2
REQUIRED PREREQU: RT 43.341 Oncology I
RT 43.312 Principles and Practices of Radiation Therapy I

RECOMMENDED PREREQUISITE: Principles of Biology
Human Growth and Development

COURSE DESCRIPTION:

This course is a continuation of the phase II Oncology I. Fundamental theories covered are: etiology & epidemiology, histopathology pathogenesis, presenting symptoms, patterns of growth, metastatic behavior, staging & grading systems, prognosis, and methods of treatment.

COURSE NAME: Treatment Planning II
COURSE NUMBER: RADT 456
PHASE: III
CREDIT HOURS: 2
REQUIRED PREREQ: RT 43.356 Treatment Planning I
RT 43.357 Radiation Therapy Physics I

COURSE DESCRIPTION:

This course is a continuation of Treatment Planning I and will cover brachytherapy applications used in radiation therapy. Topics covered nuclear binding energy, radioactivity, brachytherapy applications and treatment planning considerations, units of activity, counting statistics and advanced technologies in brachytherapy.

COURSE NAME: Radiation Therapy Physics II
COURSE NUMBER: RADT 43.457
PHASE: III
CREDIT HOURS: 2
REQUIRED PREREQ: RT 43.356 Treatment Planning I
RT 43.357 Radiation Therapy Physics I
RT 43.360

COURSE DESCRIPTION:

This course is a continuation to Radiation Therapy Physics I course. Topics covered in this phase will encompass radiation protection guidelines, various radiation detection instruments, STP, and related lectures relevant to radiation protection in radiation therapy.

COURSE NAME: Introduction to Health Services Administration I
COURSE NUMBER: RADT 461
PHASE: III
CREDIT HOURS: 1
REQUIRED PREREQS: RT 43.310 Introduction to Clinical Radiologic Science
Or Graduate of Accredited Radiography program
RT 43.335 Ethics and Law in Radiologic Sciences

COURSE DESCRIPTION:

This course provides the student with a comprehensive overview of the history, development and features of the US health care delivery system. Presented topics include introductions to health care finance, economics, health insurance, quality of care, hospital administration, and medical imaging / radiation oncology department management. The course focuses on the forces and concepts driving health care today, and how these changes are likely to affect the future of the industry, the delivery of radiologic services, and the individual health care worker. Additionally, the student will understand the concepts of supply and demand and how this affects the delivery of health care today. This course is offered in online format.

COURSE NAME: Simulator Procedures II
COURSE NUMBER: RADT 481
PHASE: III
CREDIT HOURS: 1
REQUIRED PREREQ: RT 43.381 Simulator Procedures I
RT 43.341 Oncology I

COURSE DESCRIPTION:

This course is a continuation of Simulation Procedure I in phase II. Fundamental applications in simulations, treatment sites, anatomical review and patient positioning are continued.

COURSE NAME: Radiation Therapy Clinical Experience IV
COURSE NUMBER: RADT 406
PHASE: IV
CREDIT HOURS: 4
REQUIRED PREREQUISITES: RT43.405 Radiotherapy Clinical Experience III
RT 43.457 Radiation Therapy Physics II
RT 43.456 Treatment Planning II
RT 43.481 Simulator Procedures II

COURSE DESCRIPTION

This course is a continuation of the Radiotherapy Clinical Experience III, and includes 9 weeks of clinical rotations. Phase IV clinical requirements include completion of clinical competencies and performing spot checks in specified areas of treatment delivery. Emphasis of this course is on student development of proficient performance of all radiation therapy procedures.

COURSE NAME: Introduction to Health Services Administration II
COURSE NUMBER: RADT 462
PHASE: IV
CREDIT HOURS: 1
REQUIRED PREREQ: RT 43.461 Introduction to Health Services Administration

COURSE DESCRIPTION:

This course is a continuation of Introduction to Health Services Administration from Phase III. The course provides the student with a comprehensive overview of the history, development and features of the US health care delivery system. Presented topics include introductions to health care finance, economics, health insurance, quality of care, hospital administration, and medical imaging / radiation oncology department management. The course focuses on the forces and concepts driving health care today, and how these changes are likely to affect the future of the industry, the delivery of radiologic services, and the individual health care worker. This course is offered in online format.

COURSE NAME: Radiation Therapy Senior Seminar
COURSE NUMBER: RADT 416
PHASE: IV
CREDIT HOURS: 1
COURSE DESCRIPTION:
REQUIRED PREREQS: College Composition or College Writing,
Oral Communications/Speech
All courses in Phase I, II & III

This course includes research papers and presentation of papers to peers, independent study, journal review, field trips, and attendance at educational seminars. Course requirements include weekly review and presentation of articles from the professional journals located in the classroom and research two topics of interest that will be sent to a professional journal of their choice for possible publication. Students will also be required to choose one of the research papers for submission into the Chicago Area Radiation Therapists Educational Tournament held each spring. The emphasis of the course is on the development of student skills in oral and written communication, life long learning, long term memory skills, and development of appropriate professionalism including affective attributes. The synthesis of information from across the curriculum is also emphasized. Additionally, scheduled field trips for hyperthermia, CART bowl, Neutron Therapy and the Byron Nuclear Plant are incorporated for the students overall knowledge of other uses of radiation.

COURSE NAME: Radiation Therapy Registry Review
COURSE NUMBER RADT 490
PHASE IV
CREDIT HOURS 3
REQUIRED PREREQ: All courses in Phase I, II & III
COURSE DESCRIPTION:

This course reviews each of the content areas of the ARRT examination, to prepare the student for certification. Emphasis is placed on assisting the student to organize review efforts, and the syntheses of information from across the curriculum. The course includes a registry review book developed internally through the program, a registry review book developed by the student, guest lectures from instructors for review of course content, simulated registry examinations, and review games. Successful completion of a computer based simulated registry examination is a prerequisite to graduation.

COURSE NAME: Quality Management
COURSE NUMBER RADT 450
PHASE IV
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.412 Principles and Practices in Radiation Therapy II
RT 43. 457 Radiation Therapy Physics II
RT 43.456 Treatment Planning II
RT 43.370 Radiographic Imaging

COURSE DESCRIPTION:

This course covers continuous quality improvement programs and the application of quality management concepts in radiation therapy. Covered topics include governmental impact on quality management and the JCAHO 10 step program. Also included are quality control and quality assurance for: measuring the radiation output and mechanical integrity of the treatment and simulator units and brachytherapy sources, as well as quality assessment programs to measure all aspects of the treatment deliver and patient care process. This course is offered in online format.

COURSE NAME: Simulator Procedures III
COURSE NUMBER: RADT 482
PHASE: IV
CREDIT HOURS: 1
REQUIRED PREREQ: RT 43.481 Simulator Procedures II
RT 43.441 Oncology II

COURSE DESCRIPTION:

This course is a continuation of Simulation Procedure II in phase III. Fundamental applications in simulations, treatment sites, anatomical review and patient positioning are continued. Emphasis of this course is on student development of proficient performance of all radiation therapy simulations and treatment setups.

COURSE NAME: Oncology III
COURSE NUMBER RADT 442
PHASE IV
CREDIT HOURS 2
REQUIRED PREREQ: RT 43.441 Oncology II

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RT 43.412 Principles and Practices of Radiation Therapy II

RECOMMENDED

PREREQUISITE:

Principles of Biology

Human Growth and Development

COURSE DESCRIPTION:

This course is a continuation of the phase III Oncology I. Fundamental theories in pathology are covered. Emphasis is placed on introduction to pathology, retrogressive disorders, inflammation and repair, progressive disorders (neoplasia) and radiation injury.

Pre-Requisite Courses

Program Curriculum:

The baccalaureate degree curriculum in radiation therapy is divided into two major segments: the pre-professional component completed in the freshman and sophomore years at the University of St. Francis, Rock Valley College or equivalent academic college and the professional component completed in the junior and senior years.

Pre-Professional Education:

The pre-professional curriculum is designed to fulfill the general education recommendations of the ASRT Curriculum Guide for Radiation Therapy Programs (2009). It includes course work in liberal education, biological sciences, behavioral sciences, physical sciences and mathematics. Course descriptions for the liberal education and pre-professional courses taken at the University of St. Francis in the freshman and sophomore years may be found in the current USF Catalog. Descriptions of the equivalent transfer credit courses at Rock Valley College may be found in the current RVC Catalog.

Transfer Credit

The student should consult with the University of St. Francis for transfer credit information or other questions pertaining to the coordination of this component of the education.

Program Requirements for the Bachelor of Science in Radiation Therapy

Pre-Professional Education: University of St. Francis

Liberal Education Courses:

AF 01 101	Core I: Speech	4
EN 06.111	College Writing I	3
AF 01.102	Core II: College Writing II	3
EN 06.200	Introduction to Literature	3
FA	Fine Arts Elective	3
AF 01.201	Core III: Foundations of Western Thought	3
MATH 13.105	Introduction to Statistics	3
MATH 13.111	College Algebra	See catalog
13.125	Pre-calculus level math	
BI 02.124/5	Principles of Biology	4
CH 03.120	Foundations of Inorganic, Organic & Biologic Chemistry	4
HI	Non Western History Elective	3
PY 26.111	General Psychology	3
SO 20.241	Human Growth and Development	3
PH 15.101	Introduction to Philosophical Thinking	3
PH 15.	Philosophy elective	3
TH 28.101	Introduction to Theology	3
TH 28.	Theology elective	3
	Electives to fulfill credit requirements	

Pre-Professional Courses:

BI 02.221	Human Anatomy	4
BI 02.222	Human Physiology	4
RD/RT 101	Introduction to the Radiologic Sciences	1
CS 84.103	Practical Computing for Scientists	1
	Medical Terminology	1

College prerequisites are coordinated and monitored by the University of St. Francis. Please contact the transfer coordinator for evaluation of academic requirements at the college level.

Pre-Professional Education: Rock Valley College

Liberal Education Courses:

SPH 131	Fundamentals of Speech	3
ENG 101	Composition	3
ENG 103	Composition & Literature	3
LIT	Literature Elective	3
	Fine Arts Elective	3
	Humanities Elective	3
MTH 098 or 120	Intermediate Algebra or math prerequisite for statistics	See catalog
MTH 220	Statistics	3
BIO 105	Principles of Biology	4
CHM 101	General Inorganic Chemistry	4
HST	Non Western History Elective	3
PSY 170	General Psychology	3
PSY	Developmental Psychology	3
PHL	Philosophy Elective (153 or 256)	3
PHL 155	World Religions	3
*	300 - 400 Level Philosophy Course	3
*	300 - 400 Level Theology Course	3
	Electives to fulfill credit requirements	

* Two additional courses, which are not offered at Rock Valley College, are needed to complete the baccalaureate degree liberal education requirement. The student has two options to meet these course requirements: 1) Complete one USF course during the junior year, and one USF course during the senior year while enrolled in professional education at SwedishAmerican (at no additional tuition charge) - or - 2) Complete these two courses at USF or another four year college or university prior to admission to professional education. Students electing to complete the courses at another institution should consult their USF academic advisor prior to enrollment to insure acceptance of transfer credit.

Pre-Professional Courses:

BIO 281	Human Anatomy & Physiology I	4
BIO 282	Human Physiology & Physiology II	4
RD/RT 101	Introduction to the Radiologic Sciences **	1
CIS 102	Introduction to Computers & Information Systems	3
	Medical Terminology	1

**This University of St. Francis course is offered at SwedishAmerican Hospital. Students enrolled at RVC pay part-time tuition to USF for this course.

Program Calendar

Program Calendar:

Professional education is completed in two academic years, beginning in the fall semester of the junior year. The calendar is divided into Professional Phases I, II, III and IV, during which the student attends 32 to 40 hours per week at study, in a combination of classroom, laboratory and clinical experiences. The student is required to attend during the summer between the third and fourth years in the program in order to complete all required clinical experiences. The program concludes at the end of the spring semester of the fourth year. The radiography/certificate track students will only complete Phase II-IV. The first phase is radiography based and is not a requirement for these students.

Copies of coming years' calendars are included in this catalog on the next few pages. Students complete alternating weeks of didactic and clinical education. The 38 weeks of didactic education include classroom courses and laboratories. The 45 weeks of clinical education are spent in the hospital observing, assisting and performing patient procedures and treatments. Together, didactic and clinical education prepares students for success as practicing radiologic science professionals. During the end of phase II the student will be given two weeks for observation only, at a facility of their choice. The facility must be approved by the Program Director of the school.

Student Schedules

Class schedules and clinical schedules are distributed to students at the beginning of each Phase of the program. Attendance policies are outlined in the student handbook. Students enrolled in the program are not substituted as paid staff.

Breaks/Days Off

One-week student breaks are scheduled for the mid-term of each fall and spring semester, and over the Independence Day week. Students also have two breaks over the winter holidays. Additionally, students are given 3 personal days off per semester. All clinical and didactic assignments missed while on personal days off are the students' responsibility.

Holidays

The following legal holidays are observed, and no regular didactic or clinical instruction is scheduled on these days: Labor Day, Thanksgiving (2days), Christmas Day, New Year's Day, Good Friday, Memorial Day, and Independence Day. Holidays that fall during a scheduled break period are part of that break, and no additional compensatory day off is given.

Sample Calendar

Month	Dates (M - F)	Phase I	Phase III
August 2010	2-6	-----	Summer Break
	9-13	-----	Clinical -1
	16-20	-----	Clinical - 2
	23-27	Didactic - 1	Clinical - 3
	30- 3	Didactic - 2	Clinical - 4
September	6-10	Didactic - 3	Clinical - 5
	13-17	Didactic - 4	Clinical - 6
	20-24	Didactic - 5	Clinical -7
	27-1	Didactic - 6	Clinical - 8
October	4-8	Didactic - 7	Clinical - 9
	11-15	Didactic- 8	Clinical-10
	18-22	Fall Break	Fall Break
	25-29	Clinical -1	Didactic-1
November	1-5	Didactic-9	Clinical-11
	8-12	Clinical-2	Didactic-2
	15-19	Didactic-10	Clinical-12
	22-26	Clinical-3	Didactic-3
	29-3	Didactic-11	Clinical-13
December	6-10	Clinical-4	Didactic-4
	13-17	Didactic - 12	Clinical -14
	20-24	Break	Break
	27-31	Break	Break
January 2011	3-7	Break	break
		Phase II Begins	Phase IV Begins
	10-14	Didactic-1	Clinical-1
	17-21	Clinical-1	Didactic-2
	24-28	Didactic-2	Clinical-2
	31-4	Clinical-2	Didactic-3
February	7-11	Didactic-3	Clinical-3
	14-18	Clinical-3	Didactic-4
	21-25	Didactic-4	Clinical-4
March	28-4	Clinical-4	Didactic-5
	7-11	Spring Break	Spring Break
	14-18	Didactic-5	Clinical-5
	21-25	Clinical-5	Didactic-6
	28-1	Didactic-6	Clinical-6
April	4-8	Clinical-6	Didactic-7
	11-15	Didactic-7	Clinical-7
	18-22	Clinical-7	Didactic-8
	25-29	Didactic-8	Clinical-8
May	2-6	Clinical-8	Didactic -9
	9-13	Clinical-9	
	16-20	Didactic-9	
	23-27	Clinical-10	
	30-3	Didactic-10	
June	6-10	Clinical-11	
	13-17	Didactic-11	
	20-24	Clinical-12	
	27-1	Didactic-12	
July 2011	4-8	Clinical-13	
	11-15	Didactic-13	
	18-22	Clinical-14	
	25-29	Didactic 14	

STUDENTS RIGHTS AND RESPONSIBILITIES:

Students have the right to institutional policies and procedures safeguarding the freedom to learn. Students are responsible for knowledge of and application of the policies and procedures.

Students have the right to admission without discrimination on the basis of race, age, creed, sex, color, handicap, marital status or national origin. Students have the responsibility to accept others without discrimination on the basis of race, creed, color, handicap, sex, marital status, or national origin.

Students have the right to take reasonable exception to the data or view offered in any course of study and to reserve judgment. Students are responsible for knowing material offered in any course of study in which they are enrolled.

Students have the right to orderly procedures of academic evaluation without prejudice. Students are responsible for maintaining standards of academic performance for each course in which they are enrolled.

Students have the right to confidentiality by employees of the School of Radiation Therapy. Students have the responsibility for corresponding confidentiality.

Students have the right to a carefully considered policy regarding the information, which are part of the student's permanent educational and financial record and the conditions of record disclosure. Students are responsible for maintaining confidentiality of their records.

Students have the right to discuss appropriate issues and to express opinions. Students are responsible for maintaining positive public relations for the University.

Students have the right to printed institution clarification of standards of behavior, which are considered essential in appropriate situations. Students are responsible to know these policies and may be disciplined for violations of these policies.

Students have the right to adequate safety precautions within the hospital and its facilities. Students are responsible for practicing safety measures within the hospital.

Students have the right to participate with faculty in periodic review of grading system. Students are responsible for seeking clarification or assistance from faculty regarding academic status.

*For more information about the
School of Radiation Therapy contact:*

**Program Director, School of Radiation Therapy
University of St. Francis
500 Wilcox Street
Joliet, Illinois
800-735-7500**

*For Advisement on Transfer Credit and other Information
For the Certificate/Baccalaureate Track at the College Level Contact:*

For information on the University of St. Francis Contact:

**Coordinator of Allied Health Programs
University of St. Francis
500 Wilcox Street
Joliet, IL 60435
1-800-735-7500 extension 3451
(815) 768-8376**

For Information at RockValley College contact:

**Counselor
Rock Valley College
3301 North Mulford Road
Rockford, IL 61114-5699
(815) 654-4327**

This program catalog is valid through August 2013 unless otherwise edited. For current information or clarification, please contact the School of Radiation Therapy's Program Director.

