

Radiologic Sciences

The radiologic sciences are the health care fields that involve the use of radiation in the diagnosis and treatment of human disease. Subspecialties in the radiologic sciences are radiography, radiation therapy, nuclear medicine, and diagnostic medical sonography (ultrasonography). Radiologic technologists use their knowledge of physics, human anatomy and physiology to create medical images. The radiologic sciences combine advanced technology with human compassion.

Radiography

Radiography is the allied health profession that uses x-radiation to produce images of the human body.

- The radiographer performs x-ray examinations.
- The radiographer provides patient care, comfort and education.
- The radiographer uses radiation safety and protection practices.
- The radiographer produces high quality diagnostic radiographs for physician interpretation.
- The radiographer assists in the performance of invasive and fluoroscopic procedures.

The profession of radiography requires technical skills related to proper use of x-ray equipment and radiation, as well as humanistic skills related to patient care. Pages 17-19 of this Catalog outline the *Essential Functions of a Radiographer*. Radiography serves as the background for further specialization in the medical imaging modalities of computed tomography, magnetic resonance imaging, mammography and angiography. Career opportunities are also available in education, management and technical sales.

SwedishAmerican Health System:

A subsidiary of SwedishAmerican Health System, SwedishAmerican Hospital is a 333-bed, full-service, non-profit hospital serving the greater Rockford region, northern Illinois and southern Wisconsin. SwedishAmerican was named one of the “Top 100 Hospitals” in the US. SwedishAmerican also won the “Lincoln Award” recognizing excellence in Illinois businesses. SwedishAmerican was recognized by JD Power as a “Distinguished Hospital for Service Excellence” and was the only hospital in Northern Illinois ranked among the Top 100 Hospitals by Total Benchmark Solutions in recognition of its superior clinical performance. SwedishAmerican sponsors two allied health educational programs, the School of Radiography and the School of Radiation Therapy.

Program Sponsorship:

SwedishAmerican Hospital sponsors the School of Radiography. The School is a hospital based, certificate program. As the program sponsor, SwedishAmerican Hospital has primary responsibility for the professional education program, and grants the terminal award -- the hospital certificate. SwedishAmerican Healthcare System provides a smoke-free environment for its patients, visitors, employees and students. (See Appendix A for more information).

SwedishAmerican Hospital Mission:

Through excellence in healthcare and compassionate service, we care for our community.”

School of Radiography Mission:

Through excellence in education and a quality-focused environment, we provide our healthcare community with competent and compassionate radiographers.

Program Goals:

1. Graduate competent radiographers.
2. Develop problem solving and critical thinking skills
3. Practice effective communication skills
4. Demonstrate the values and ethics of a radiographer
5. Provide our healthcare community with radiographers.

Program Accreditation:

The JRCERT (Joint Review Committee on Education in Radiologic Technology) accredits the SwedishAmerican School of Radiography. Accreditation ensures that the School meets or exceeds national standards regarding the quality of the program. Program accreditation also guarantees that graduates are eligible for national certification and state licensure. The School posts a copy of the *JRCERT Standards for an Accredited Educational Program in Radiologic Sciences* on the bulletin board outside the School classroom for applicant or student review. For more information about the School's accreditation status, contact the JRCERT at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-2901 (phone: 312-704-5300, E-mail address: mail@jrcert.org, or the JRCERT website: www.jrcert.org).

Admissions:

Admission into the School of Radiography is competitive. The school receives approximately 50+ applications each year and from those, accepts up to ten qualified applicants. Applicants admitted to the program must meet academic and professional admission standards. SwedishAmerican Hospital School of Radiography offers applicants two options: **A Certificate Track and a Baccalaureate Track.**

The difference between these options is in:

- the number of college courses completed **before** admission to the hospital program,
- the cost of tuition, and
- the availability of financial aid.

Another difference is whether or not the student earns academic credit. **While enrolled in the School of Radiography, certificate track students and baccalaureate track students complete the same courses. Both tracks satisfy the educational requirements for registration and employment as a radiographer.**

Pages 9 - 13 of this *Program Catalog* outline the School's admission policy and procedures.

Certificate or Baccalaureate Track - Which is right for you?

Certificate Track:

Applicants that select the certificate track will attend the School of Radiography at SAH for 24 months. The certificate track is for students who do not wish to complete the requirements for a four-year baccalaureate degree; however applicants must complete seven prerequisite college courses to qualify for admission into the program. (see Admission Policy on pages 9-13 of this *Catalog* for details). Certificate track students do not earn an academic (college) degree and are not eligible for financial aid, although there are some scholarships available through the Rockford Health Career Foundation, SwedishAmerican Hospital and the Guminski Scholarship. Most scholarship opportunities fund tuition for the second-year only. Certificate track students pay tuition directly to SwedishAmerican Hospital, and earn a radiography certificate upon successful completion of the program. Successful completion of the program qualifies the graduate to sit for the ARRT national certification examination and for eligibility for Illinois State licensure.

Baccalaureate Track:

The baccalaureate track is for students seeking a four year degree. **Baccalaureate track students must complete two years of pre-requisite college courses BEFORE enrolling in the School of Radiography.** SwedishAmerican does not grant academic credit; however the School has a baccalaureate degree affiliation with the University of St. Francis. This affiliation provides students with an option to earn a Bachelor of Science in Radiography. The University of St. Francis provides pre-professional education, grants academic credit for the hospital-based curriculum, and awards the baccalaureate degree upon successful completion of the hospital certificate program. USF will accept transfer credit from Rock Valley College -- or another accredited college of your choice -- to meet the pre-professional requirements. While enrolled in the SwedishAmerican School of Radiography, the baccalaureate-track student pays tuition to USF and is eligible for the University's financial aid programs. Upon successful completion of the two-year program at SwedishAmerican and the two years of pre-requisite college courses, baccalaureate track students earn a radiography certificate from SwedishAmerican Hospital **and** a Bachelor of Science degree in Radiography -- awarded by the University of St. Francis. Successful completion of the pre-professional courses and the radiography curriculum qualifies the graduate to sit for the ARRT national certification examination and for eligibility for Illinois State licensure.

Students interested in pursuing the baccalaureate degree option should contact the Coordinator of Allied Health Enrollment, University of St. Francis, 1-800-735-7500. Students may also apply to USF online at www.stfrancis.edu/admissions/apply.htm

Transfer Students / Advanced Standing:

A student previously enrolled in another JRCERT accredited radiography program or who has received certification in another country, may apply for advanced standing. An applicant for advanced standing must complete the regular admissions process, and provide official transcripts from the previous radiography program. The Admission Committee approves admission of a student with advanced standing, and also determines student placement within the program. The School reserves the right to require placement testing.

Program Calendar:

The School of Radiography covers two academic years, beginning in the summer term of the junior (first) year. Classes begin in mid May. Divisions of the two-year calendar are Professional Phases I, II, III and IV. While enrolled, the student attends 32 to 40 hours per week at SwedishAmerican Hospital, in a combination of classroom, laboratory and clinical experiences. The student must attend during the summer when the program begins and the summer term between the first and second years in the program to complete all required clinical experiences. The program concludes at the end of the spring semester of the senior (second) year. Students complete alternating weeks of didactic and clinical education. The 38 weeks of didactic education include classroom courses and laboratories. The student spends 45 weeks of clinical education in the hospital observing, assisting and performing patient procedures. The didactic and clinical education prepares students for success as practicing radiographers.

Program Curriculum:

The professional curriculum of the SwedishAmerican School of Radiography follows the standardized *ASRT Curriculum Guide for Radiography Programs*. This document is available for review on the ASRT's website at www.asrt.org. Due to the potential for changes in the ASRT requirements, the School of Radiography reserves the right to modify the professional curriculum as necessary to insure the quality of the program and its continued accreditation. A course listing is on page 17, and course descriptions are on pages 19 - 32 of this *Catalog*.

****The Radiography Program will be offering some of its courses in an online format using Blackboard software in conjunction with the University of St. Francis. The only difference between an online course and a traditional course is with Blackboard you can “attend” your class at a time that is convenient for you. Like any class, you will read texts and supplemental materials, participate in class discussions, write papers, complete projects and take exams. The radiography student enrolled in the program must have access to the following: Please use the link below to view system requirements.**

<https://www.stfrancis.edu/admissions/online-students/computer-requirements/>

Academic Credit:

SwedishAmerican Hospital does not award academic credit. The School of Radiography uses a credit hour system to calculate student grade point averages and determine student eligibility for graduation. For clinical courses at SwedishAmerican, students earn 1 credit hour per 100 contact hours. For didactic courses, students earn 1 credit hour per 20 contact hours.

For information on how a student may earn academic credit for completion of SwedishAmerican courses, please contact the University of St. Francis Office of Transfer Student Admissions at 1-800-735-7500.

Tuition:

Certificate track students pay tuition directly to SwedishAmerican Hospital. Total tuition cost for the program is \$4,000. Tuition payments of \$1,000 and any additional online fees are due on the first day of classes for each Phase.

Phase/Term	Tuition Paym't Due	Due Date
Phase I/Summer	\$ 1,000	May 17, 2010
Phase I/Fall		Aug 16, 2010
Phase II/Spring	\$ 1,000	Jan 3, 2011
Phase III/Summer	\$ 1,000	May 16, 2011
Phase III/Fall		Aug 15, 2011
Phase IV/Spring	<u>\$ 1,000</u>	Jan 9, 2012
	\$ 4,000	

Baccalaureate track students pay tuition directly to the University of St. Francis. Through a tuition sharing agreement, the student does not pay additional tuition to SwedishAmerican.

***Note:** Online course fees are \$50/1 or 2 credit hour course \$100/3 credit hour course and \$125/4 credit hour course for both certificate and baccalaureate track students.

Book Fees:

The student is responsible for the purchase and cost of required textbooks. Book fees will vary depending on current publisher pricing and instructor textbook selection. Estimated total book costs for both years is approximately \$1800.

Housing and Board:

Effective August 2006, students may reside in Terrace Apartments, hospital-owned 1-bedroom apartments within walking distance to the hospital at a cost of approximately \$500/month. Rent excludes electric and cable/internet/phone service. Each apartment has one bedroom, private bath, living room, and a small kitchenette with stove and refrigerator. Laundry facilities are available in the basement of the building. Parking will be provided on hospital property across the street from the apartments (on the same side of the street as the hospital). **For additional information about apartment availability contact the SwedishAmerican Medical Foundation at 815-489-4347.**

Meals are available to students in the hospital cafeteria, "The Commons", at the employee rate with ID badge. No special board plan or meal tickets are necessary.

Other Student Expenses:

Students are responsible for the purchase of uniforms (see Dress Code – Appendix B), school patch for uniform, school supplies, books, cost of a pre-entrance physical examination, criminal background check, drug screens and educational conference expenses. Costs will vary year to year.

Pre-entrance Physical Exam and Criminal Background Check:

Once an applicant has been accepted, s/he must complete a physical examination prior to enrollment. This certifies the student's health status, and documents the student's ability to fulfill the essential functions of the radiographer. The School provides each student with a pre-placement physical examination form. The student then has the exam done by the physician of his or her choice. Once completed, the student must contact **SwedishAmerican Employee Health Services at 815-489-4112** to schedule an appointment to review records and get a TB test before starting the program. Successful completion of the pre-entrance physical is a prerequisite to enrollment in the program. Students

In addition, applicants must submit to a criminal background check prior to enrollment. The School will provide instructions on how to submit the criminal background check. The student is responsible for all fees. The Hospital reserves the right to disqualify applicants based on criminal history. (see Appendix C) Students with a questionable history are advised to complete the pre-application process with the ARRT (American Registry of Radiologic Technologists) prior to applying to the program. Applicants can review this process by accessing the ARRT website: www.arrt.org and clicking on "Ethics" and then "pre-application process".

Financial Aid:

SwedishAmerican Hospital **does not** administer student financial aid programs. Certificate track students in the School of Radiography are not eligible for financial aid, however once enrolled, may apply for scholarships as available. Baccalaureate track students are eligible for the University of St. Francis financial aid programs. For more information, contact the USF Financial Aid Office at 815-740-3403.

Refund Policies:

Admission testing fees, and book fees are non refundable. Current University policies govern refund of baccalaureate track tuition -- please consult the USF Catalog for more information. Refund of certificate track tuition follows the schedule below. A student dismissed from the School of Radiography is not eligible for a tuition refund. The student is responsible for applying for all refunds.

Number of weeks attended in Phase:	% Tuition refunded
1-3 weeks	75%
4 weeks	50%
5 weeks	25%
6 weeks	0 %

Student Handbook:

The School of Radiography *Student Handbook* is available for review by all applicants. Applicants may access the *Student Handbook* on the School's website www.swedishamerican.org, Careers, Educational Opportunities, and School of Radiography. *The Handbook* contains the policies and procedures of the Program. An applicant may review a copy of the *Student Handbook* by contacting the Program Director. All students admitted to the School of Radiography receive a *Student Handbook*.

Academic Policies:

The School of Radiography employs the following grading scale:

93 - 100%	A
86 – 92	B
80 - 85%	C
79% and below	F

Each student must 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 to the minimum 80% following probation results in student dismissal from the program. Student probation may also result from clinical deficiencies or unprofessional behavior. Depending on the seriousness of the infraction, the School may allow each student three probation periods during enrollment. Dismissal from the School will result when it becomes necessary to issue a fourth probation.

Disciplinary Procedures:

While enrolled in the School of Radiography, all students must conduct themselves professionally. Students must abide by the *American Registry of Radiologic Technologists' Code of Ethics*. Applicants can review this document by accessing the ARRT website: www.arrt.org. Students must also comply with the policies and procedures of SwedishAmerican Hospital, the Medical Imaging Department, and the School of Radiography. Any student who does not comply with policies and standards is subject to disciplinary action.

Due Process:

A student with a grievance or a complaint related to the School's operation or compliance with educational standards -- should follow the School's Grievance or Student Complaint Procedure. These procedures can be found in the *Student Handbook*.

Graduation Requirements:

In order to be eligible for graduation from the School of Radiography, the student must:

- Complete all required didactic and clinical courses.
- Attain a minimum of a C grade (80%) in all required didactic and clinical courses.
- Attain a minimum of 80% average score on all mock registry examinations.
- Complete all required clinical education requirements, including clinical rotation objectives, clinical competency evaluations, and final competencies.
- Complete any make up clinical hours.
- Pay all tuition and fees payable to SwedishAmerican Hospital.
- Return all hospital property, including ID badges, markers, and dosimeter.
- Have required 2 step TB test.

The School of Radiography holds a graduation ceremony at the completion of the program, and awards graduates a diploma and a school pin. The graduate must meet all of the above requirements for graduation.

Graduate Certification and Licensure:

Successful completion of the SwedishAmerican School of Radiography makes the graduate eligible for the national certification examination of the American Registry of Radiologic Technologists (ARRT). Successful completion of the ARRT certification exam entitles graduates to use the professional designation: R.T. (R) "Registered Technologist - Radiography". More information about the certification exam or the technologist registry is available from the ARRT, 1255 Northland Drive, St. Paul, MN 55120-1155, phone (651) 687-0048. Information can also be found at the ARRT website at www.arrt.org. 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 radiographer licensure is available from the Illinois Emergency Management Agency - Division of Nuclear Safety (IEMA-DNS), 1035 Outer Park Drive, Springfield, IL 62704, and online at www.iema.illinois.gov.

SwedishAmerican Hospital School of Radiography Admission Policy

Non-Discrimination Statement

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

Academic Admission Standards

1. The applicant must be a high school graduate (or equivalent).
2. Admission procedures favor applicants who have completed college science and math course work with a "C" or better.
 - The applicant must have earned a 2.5 minimum cumulative grade point average in college. Admission procedures favor applicants with superior academic achievement.
3. ***Required College Courses:***
 - a. The applicant must complete the 8 prerequisite college courses before enrolling in the School of Radiography. A grade of "C" or better is required in all prerequisite courses. The applicant may take these courses at Rock Valley College, the University of St. Francis or another regionally accredited college or university.
 - b. The applicant may submit an application for admission before completing all required courses. The Admission Committee may admit an applicant conditionally, pending completion of the required prerequisites. The applicant must verify successful completion of summer courses by providing an updated official transcript before classes start in May.

- **Human Anatomy and Physiology I & II** –
For baccalaureate track AND certificate track applicants, the two Rock Valley College courses BIO 281 “Human Anatomy and Physiology I” **AND** BIO 282 “Human Anatomy and Physiology II” satisfy this requirement
CHM 120 is a prerequisite for these courses
OR
the student may complete BIOL 02.221 “Human Anatomy” **AND** BIOL 02.252 “Human Physiology” at the University of St. Francis. Baccalaureate students must take the USF prerequisite course BIOL 124/5 “Principles of Biology I” prior to enrollment in “Human Anatomy” and “Human Physiology.”
- **Speech** --
For baccalaureate track AND certificate track applicants, the Rock Valley College course SPH 131 “Fundamentals of Speech”
OR
University of St. Francis course ACAF 01.101 “Core I Speech” both satisfy this requirement.
- **Composition or College Writing I** –
For baccalaureate track AND certificate track applicants, the Rock Valley College course ENG 101 “Composition”
OR
University of St. Francis course ENGL 06.111 “College Writing I” satisfy this requirement.
- **College Algebra** --
For baccalaureate track AND certificate track applicants, the Rock Valley College course MTH 120 “College Algebra” or MTH 220 “Elements of Statistics”
OR
Completion of the University of St. Francis course MATH 13.105 “Introduction to Statistics” also satisfies this requirement.
- **Chemistry** –
For baccalaureate track applicants, students must complete CHM 120 “General Chemistry I” at Rock Valley College.
***Prerequisite for this course is College Algebra
OR
CHM 120 “Foundations of Chemistry” at USF.
- **Basic Computer Skills**
For baccalaureate track AND certificate track applicants, students must complete the Rock Valley College course CIS 102 “Introduction to Computers & Information Systems”
OR
COMP 101 “Computer Concepts and Applications” at USF.
- **General Psychology**
For baccalaureate track AND certificate track applicants, students must Complete the Rock Valley College course PSY 170 “General Psychology”
OR
PSYC 111 “General Psychology” at USF.
- **Medical Terminology**
For baccalaureate track AND certificate track applicants, students must Complete the Rock Valley College HLT 110 “Medical Terminology “
OR
RADG 320 “Medical Terminology” at USF

Required College General Education / Liberal Arts Courses:

For baccalaureate track applicants ONLY

Admission to the baccalaureate track requires completion of all of these additional courses.

- College Writing II *or* Composition and Literature
- Introduction to Literature *or* a Literature Elective
- Fine Arts Elective
- Foundations of Western Thought *or* Humanities Elective
- Approved History Elective
- Human Behavior & the Social Environment II
- Introduction to Philosophical Thinking
- Approved Philosophy Elective
- Introduction to Theology
- Approved Theology Elective
- Introduction to Radiologic Sciences

Additional College Mathematics/ Science/Healthcare-related Courses:

For baccalaureate track AND certificate track applicants:

Although it is not required, the program recommends the applicant complete additional college math, science, and healthcare-related courses that are above the minimum requirements. Admissions procedures favor those applicants who have completed such courses.

Professional Admission Standards

1. The applicant must be 18 years of age by May 17, 2011. This is to comply with radiation protection regulations.
2. Due to the nature of employment as a radiologic science professional, the applicant must be able to perform the *Essential Functions of a Radiographer*, as outlined on pages 17 - 19.
3. Students admitted to the program must complete the required SwedishAmerican pre-placement physical examination to verify ability to perform *Essential Functions*. The program will not enroll an accepted student who fails to complete the required physical form and have an appointment at Employee Health Services by May 1, 2011.
4. The applicant must be of good moral character, as verified through applicant references. The School requires a criminal background check on each applicant before admission to the program. The applicant must complete the criminal background check before May 1, 2011. Many employers require such checks prior to employment -- including SwedishAmerican Hospital. Additionally, a person with a criminal conviction may not be eligible for ARRT certification.

To apply for admission to the School of Radiography:

1. The applicant must submit a completed **electronic** application found on our school's webpage **by December 15, 2010**. The electronic application software will be available by June 1st 2010. Due to the competitive nature of admission to the Program, the applicant is encouraged to apply early. The application must include the names, complete addresses and e-mail addresses of three academic or professional references (No family). It is the responsibility of the applicant to call and make sure all references application material have been received.
2. **There is a \$35 application fee.** All fees must be sent in the form of a **money order** or **certified check** made payable to "SwedishAmerican School of Radiography". Mail the check to the address listed at the bottom of this page. Applications will not be reviewed until the application fee has been received.
3. The applicant must provide official high school and ALL college transcripts. The high school and college attended must forward official copies of transcripts directly to the Program Director at SwedishAmerican School of Radiography.
4. The applicant must complete the *PSB Health Occupations Aptitude Examination* after application submission. There is a \$30 testing fee for this exam to be paid in cash. Testing is scheduled by appointment. Applicants are responsible for contacting the School to schedule the testing (815-489-4966 or 815-489-4959). Applicants who have completed the exam as part of the application process for another program may have their scores forwarded to SwedishAmerican, rather than repeat the exam. Applicants may take the examination up to 4 times per application cycle. The applicant is responsible for contacting the other program to have the scores sent to SwedishAmerican. All admission testing must be completed **by January 31, 2010**.
5. All applicants will be scheduled for an 8-hour day of clinical observation in the SAH Medical Imaging Department as part of the admissions process. **It is the applicant's responsibility to call the school to schedule the observation after the application has been submitted. (815-489-4966 or 815-489-4959)**
6. Based on an admission points system, selected applicants who have successfully completed the above requirements will be contacted for an interview with the School's Admissions Committee.
7. Applicants seeking admission to the baccalaureate track must contact the University of St. Francis. Call the Director of Allied Health Enrollment at 815-740-5037 for additional information.
8. **Application Fee**

**Mail Certified Checks or Money Order of \$35 to:
SwedishAmerican School of Radiography
Program Director
1250 E. State St.
Rockford, IL 61104**

Admission Procedures

The School of Radiography admits a maximum of ten students per year. Limiting enrollment assures the quality of the student clinical experience. Admission is competitive, and the School of Radiography Admissions Committee makes all admission decisions.

The Admissions Committee employs an admission points system. The Committee scores each applicant on the following criteria, assigning each criterion a score, and then calculating an average score and sum score for each applicant. An applicant with a high average and sum score will have **preference** in admissions.

1. GPA of prerequisites courses
2. Additional college science, math and/or healthcare-related course grade average
3. Number of additional college science, math and/or healthcare-related courses completed
4. College cumulative grade point average
5. PSB Non Verbal Academic Aptitude Score
6. PSB Academic Aptitude Score
7. PSB Reading Comprehension Score
8. PSB Natural Science Score
9. PSB Vocational Adjustment Score
10. Average of Observation Evaluation scores
11. Average of scores from 3 References
12. Average of scores from Interview
13. Healthcare experience bonus points
14. Multiple applicant Points

The Admissions Committee will consider only fully completed applications. The Committee will make final admission decisions and notify all applicants of their status **by March 31, 2011**. Students accepted for admission must complete the required pre-entrance physical and appointment with Employee Health Services **and** criminal background check by **May 1, 2011**.

- ***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.***

CRIMINAL BACKGROUND CHECK ON SCHOOL OF RADIOGRAPHY APPLICANTS

The SwedishAmerican Hospital School of Radiography is required by the Illinois Health Care Workers Background Check Act to perform criminal background checks on program applicants who have been accepted, in compliance with Human Resources policy 10-951.058.8 – Criminal Background Checks (See Appendix C). Applicants that are Illinois-state residents must complete the Uniform Conviction Information Act (UCIA) (or appropriate state agency for out-of-state applicants) application provided along with a check to cover the expense of performing the background check. Acceptance and continuation in the program are contingent upon the results of the background check consistent with HR Policy 10-951.058.8.

SwedishAmerican Hospital School of Radiography STUDENT GRIEVANCE POLICY and PROCEDURE

Students, as consumers of the educational program offered by the SwedishAmerican Hospital School of Radiography, have the right to file a grievance about issues with which they feel require a response and/or resolution. The SAH School of Radiography prefers to solve problems by internal procedures within the School if at all possible before the formal Student Grievance Procedure is activated.

I. Purpose

This policy provides a procedure for any radiography student who has a problem, question or complaint regarding any aspect of their enrollment, to have the complaint reviewed by appropriate authorities. This procedure also applies to terminated students. Other issues include:

- A. Alleged discrimination on the basis of age, sex, race, handicap or other conditions, preferences or behavior, excluding sexual harassment complaints.
- B. Sexual harassment complaints should be directed to the HR Business Partner. Because of the sensitive nature of this kind of complaint, a conference with the HR Director will replace the first step of the grievance procedure. The HR Director will counsel with the student to determine the appropriate action that is required.
- C. Academic matters, except where the conditions in item A above apply.
- D. Disciplinary actions, including termination, which may be imposed on a student.
- E. Other

II. Definition

A problem, question, or complaint may become a formal grievance if the results of a conference with the student's instructor or Program Director are not satisfactory to him/her.

III. Procedure

A. First Step

The student must go to the instructor where the alleged problem originated. An attempt will be made to resolve the matter equitably and informally at this level. The conference must take place within 5 working days of the incident which generated the complaint. **If the matter cannot be resolved at the adjournment of the meeting or within 3 working days, the student should move to the second step in the process.**

B. Second Step

In cases where the instructor is not the Program Director, a meeting with the Program Director may be requested after the student's initial meeting with the instructor if resolution to the complaint is not reached. This meeting must take place within 3 days of the initial meeting. **The Program Director's decision should be communicated to the student within 3 days of their meeting.**

C. Third Step

If a satisfactory outcome is not possible after the second step, the student may file a formal grievance in writing to the Program Director within 5 days of the meeting, requesting a hearing with the Executive Committee. A meeting with the Executive Committee must take place within 10 days of receipt of the formal letter. The Executive Committee consists of the Program Director, the Director of Medical Imaging, the Manager of Medical Imaging and the Medical Director. **Notification of the outcome of the meeting should be within 3 days of the meeting.** If student feels a satisfactory resolution has not be reached, then the "Last Step" of the procedure may be implemented.

D. Last Step

If the student is not satisfied with the response of the Executive Committee, the student has one last opportunity for appeal. A written notice of appeal must be received within 5 days of the meeting of the Executive Committee. A meeting with the Appeal Committee must take place within 10 days of receipt of the notice of appeal. The Appeal Committee is composed of the Vice President of Human Resources, the Vice President of Clinical Services. **Notification of the outcome of the meeting should be within 3 days of the meeting.** The decision of the Appeals Committee is final.

Failure on the part of the student to comply with the steps as outlined in this process will result in termination of the process.

The Student Grievance Policy is available to students in the ***Student Handbook*** and a copy is available in the School office.

**SwedishAmerican Hospital
School of Radiography**

COMPLAINT RESOLUTION PROCEDURE

The Joint Review Committee on Education in Radiologic Technology accredits the SwedishAmerican Hospital School of Radiography. This accreditation is important because it indicates that the program is committed to academic excellence, health care quality and patient and professional safety. JRCERT accreditation demonstrates that a program adheres to the national educational standards that have been accepted by the profession. **The Standards for an Accredited Educational Program in Radiologic Sciences (STANDARDS) are available upon request in the Program Director's office.** Students who have concerns regarding the program's compliance with the **STANDARDS** should follow the procedures outlined in the program's Grievance Procedure. If the student does not feel that the program and the Hospital have satisfactorily addressed the complaint, the student may contact the JRCERT with the concern. The JRCERT can be contacted at:

Joint Review Committee on Education in Radiologic Technology
20 N. Wacker Drive
Suite 2850
Chicago, IL 60606-3182

Phone: 312-704-5300

Email: mail@jrcert.org

SwedishAmerican Hospital
School of Radiography
Essential Functions of a Radiographer

Description of the Profession of Radiography:

Radiography is the art and science of performing x-ray examinations for medical diagnosis. The radiographer obtains medical images upon the request of a physician, for diagnostic interpretation by a radiologist. The radiographer operates high voltage equipment and applies x-radiation to the patient's body to produce a radiograph – a medical image of patient anatomy and physiology. The radiographer exercises professional judgment in the performance of procedures and maintains the ethical standards of the profession. The radiographer provides patient care and adapts the exam as appropriate to patient condition. The radiographer selects the x-ray equipment, exposure factors and accessory devices necessary for the exam. The radiographer provides radiation protection for self, the patient, and other health care workers.

The practice of radiography is performed by persons proven competent through completion of an approved educational program that includes clinical experience. Following entry into the profession, areas of specialization for a radiographer include the modalities of computed tomography, ultrasonography, cardiovascular and interventional angiography, mammography, nuclear medicine, magnetic resonance imaging and radiation therapy.

Persons contemplating educational preparation to enter this profession should be aware of the *Essential Functions* of the radiographer. Applicants to the program should use the *Essential Functions* to guide their career decision-making and to estimate their potential for success in the field.

Scope of Practice of the Radiographer:

- 1. The radiographer performs radiographic procedures and assists in performance of fluoroscopic and invasive procedures, for the purpose of medical diagnosis or interventional treatment. As a medical imaging specialist, the radiographer performs the following duties and responsibilities.**
 - The radiographer operates handles and manipulates radiographic and fluoroscopic equipment and accessories.
 - The radiographer uses strength, coordination and dexterity to transport portable radiographic equipment, manipulate the overhead x-ray tube, operate machine controls and locks, and lift cassettes, grids or other devices weighing up to 50 lb.
 - The radiographer assists the radiologist in the performance of fluoroscopic and invasive procedures. The radiographer may perform non-interpretive fluoroscopic procedures as appropriate and consistent with state statutes.
 - The radiographer performs quality assurance and quality control checks.
 - The radiographer visually evaluates images for image quality, exposure factors and proper patient positioning.
 - The radiographer uses critical thinking skills and sound judgment in decisions to repeat poor quality images. The radiographer is able to accurately correct technical errors and overcome clinical problems.

- The radiographer detects equipment malfunctions and takes appropriate actions.
 - The radiographer listens and responds appropriately and timely to auditory warnings – patient sounds, alarms in the exam room, equipment sounds, fire alarms and PA announcements.
 - The radiographer efficiently and accurately performs required mathematical calculations for x-ray technique selection and contrast media dosing.
 - The radiographer uses good judgment in situations where the procedure should be delayed or modified – or where the ordering physician or the radiologist should be consulted.
 - The radiographer applies principles of radiation protection in clinical practice, recognizing the professional responsibility to reduce the risk of unnecessary radiation exposure to patients and self. The radiographer uses radiation protection apparel appropriately (lead gloves, aprons, and shields).
 - The radiographer shows a dedication to obtain only high quality medical images – allowing for appropriate therapy to improve the patient’s health through accurate and timely medical diagnosis.
- 2. The radiographer performs diagnostic services while also providing for the physical and psychological needs of the patient. As a patient care provider, the radiographer performs the following duties and responsibilities.**
- The radiographer communicates effectively with patients, their families, other health care workers and physicians.
 - The radiographer obtains a patient clinical history as required for the procedure. The radiographer documents all pertinent information, and makes this information available to the radiologist.
 - The radiographer provides patient education and instruction – to allow informed patient consent, to minimize patient anxiety, and to ease the performance of the procedure.
 - The radiographer documents information accurately and legibly in the written and electronic patient record.
 - The radiographer assists the radiologist in the administration of contrast media and drugs to patients during procedures.
 - The radiographer obtains and records vital signs – temperature, pulse, respiration and blood pressure.
 - The radiographer performs venipuncture and administers intravenous contrast as allowed by department protocol and state law. The radiographer monitors the patient for signs of contrast reaction and provides appropriate patient care if anaphylaxis occurs.
 - The radiographer has the physical, intellectual, and emotional ability to recognize and respond to emergency situations – providing first aid, patient care and CPR as necessary.
 - The radiographer is capable of handling stressful situations, making informed decisions and giving emotional support to patients and their families.
 - The radiographer uses strength to lift, move, position and transport patients – without causing undue pain or discomfort to the patient or self. This includes moving patients from bed to wheelchair or cart, from wheelchair or cart to radiographic table, moving the patient while on the radiographic table, transporting patients in wheelchairs and on carts, and assisting patients while walking.

- The radiographer uses coordination and dexterity in handling patient care equipment and accessories such as intravenous pumps, venipuncture supplies, urinary catheters, enema supplies, and immobilization devices.
 - The radiographer provides appropriate care specific to the age of the patient.
 - The radiographer applies principles of infection control, aseptic technique and standard precautions to protect the patient and self from risk of infectious disease.
- 3. The radiographer maintains values congruent with the *ARRT Code of Ethics* and the profession's scope of practice – and adheres to national, institutional and departmental standards and policies regarding procedural protocol and patient care. As a health care professional, the radiographer performs the following duties and responsibilities.**
- The radiographer conducts herself or himself professionally, responds to patient needs and supports colleagues and associates in providing quality patient care.
 - The radiographer acts to advance the principle objective of the profession – to provide patient services with full respect for human dignity.
 - The radiographer delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, and without discrimination on the basis of sex, race, creed, religion or socioeconomic status.
 - The radiographer practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with their designed purposes, and employs procedures and techniques appropriately.
 - The radiographer assesses situations; exercises care, discretion and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
 - The radiographer acts as an agent through observation and communication. The radiographer obtains pertinent information for the physician to aid in the diagnosis and treatment of the patient. The radiographer recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
 - The radiographer uses equipment and accessories, employs techniques and procedures, and performs services in accordance with an accepted standard of practice. The radiographer demonstrates expertise in minimizing radiation exposure to the patient, self and other members of the health care team.
 - The radiographer practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
 - The radiographer respects confidences entrusted in the course of professional practice. The radiographer respects the patient's right to privacy and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
 - The radiographer continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues and investigating new aspects of professional practice.

SwedishAmerican Hospital School of Radiography Course Listing:

Professional Phase I

Summer Session

RADG 42.301	Radiography Clinical Orientation	2
RADG 42.310	Intro. To Clinical Radiologic Science	2
RADG 42.320	Medical Terminology (self-study)	1
RADG 42.331	Methods of Patient Care	3

Fall Session

RADG 42.350	Radiographic Physics	3
RADG 42.380	Radiographic Procedures I	5
RADG 42.430	Radiographic Pharmacology	2
RADG 42.305	Radiography Clinical Experience I	3
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Professional Phase II – Spring Session

RADG 42.371	Radiographic Imaging	3
RADG 42.381	Radiographic Procedures II	5
RADG 42.440	Radiographic Pathology I	2
RADG 42.335	Ethics and Law (online)	2
RADG 42.307	Radiography Clinical Experience II	3
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Professional Phase III

Summer Session

RADG 42.481	Special Procedures	3
RADG 42.372	Digital Radiography and PACS	2
RADG 42.421	Sectional Anatomy	2
RADG 42.407	Radiography Clinical Experience III	3

Fall Session

RADG 42.410	Radiographic Critique I	2
RADG 42.460	Health Care and Radiology Administration I (online)	1
RADG 42.441	Pathology II	2
RADG 42.360	Radiobiology and Radiation Protection	2
RADG 42.408	Radiography Clinical Experience IV	5
		22

Professional Phase IV – Spring Session

RADG 42.411	Radiographic Critique II	2
RADG 42.461	Health Care and Radiology Administration II (online)	1
RADG 42.450	Quality Management	2
RADG 42.491	Radiography Registry Review	3
RADG 42.409	Radiography Clinical Experience V	4
		12

Total Credits for Radiography Professional Education: 70

Phase I Courses:

Summer Session

COURSE NAME: Radiography Clinical Orientation
COURSE NUMBER: RADG 42.301
PHASE: I
CREDIT HOURS: 2.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
RECOMMENDED PREREQUISITES: RADG 42.101 Introduction to Radiologic Sciences
COREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.320 Medical Terminology, RADG 42.331 Methods of Patient Care

COURSE DESCRIPTION:

This course provides an orientation to the imaging department and clinical environment. The student will complete seven 6-hour observations (Fridays of the didactic week) in assigned radiographic areas within the Medical Imaging department to gain an introductory understanding of the functioning of the department and radiographic process. During six-weeks of clinical experience, the student will also complete rotations in the non-radiographic areas in the department (patient transport, file room, reception desk and darkroom) to integrate knowledge and skills acquired in the co-requisite courses, Methods of Patient Care, Introduction to Radiologic Sciences and Medical Terminology.

COURSE NAME: Introduction to Clinical Radiologic Sciences
COURSE NUMBER: RADG 42.310
PHASE: I
CREDIT HOURS: 2
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITE: RADG 42.101 Introduction to Radiologic Sciences
COOREQUISITES: RADG 42.301 Radiography Clinical Orientation, RADG 42.320 Medical Terminology, RADG 42.331 Methods of Patient Care

COURSE DESCRIPTION:

This course provides the student with an overview of radiography and radiation therapy, and their roles in health care delivery. It includes orientation to the SwedishAmerican Health System, departmental orientation and program orientation. The course outlines student responsibilities through a review of all pertinent policies and procedures. The course outlines the structure of the health system and roles of various departments and health professionals. The course includes other introductory topics to ease the student's transition into clinical experience. These topics include: 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 course also covers the professional organizations involved in the certification of radiologic professionals and accreditation of educational programs.

COURSE NAME: Medical Terminology
COURSE NUMBER: RADG 42.320
PHASE: I
CREDIT HOURS: 1
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
REQUIRED PREREQ: BIO 281 and 282 Anatomy and Physiology I & II
COREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Science, RADG 42.331 Methods of Patient Care, RADG 42.301 Radiography Clinical Orientation.

COURSE DESCRIPTION:

This course provides the student with the elements of the language of health care and radiologic technology. Presentations include the origin of medical terms, the system of word building and the use of abbreviations and symbols. The course emphasizes terminology pertinent to the radiologic sciences and patient care -- and the application of this knowledge in the interpretation of orders and reports. The course employs a body system approach, including a review of the structure and function of each system.

COURSE NAME: Methods of Patient Care
COURSE NUMBER: RADG 42. 331
PHASE: I
CREDIT HOURS: 3.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
RECOMMENDED PREREQUISITES: RADG 42.101 Introduction to Radiologic Sciences
COREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.320 Medical Terminology, RADG 42.301 Radiography Clinical Orientation

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. The course covers routine and emergency patient care procedures including: basic EKG, infection control, patient assessment, patient education, venipuncture and contrast injection, introduction to pharmacology, and interacting with the terminally ill. The course includes certification in cardiopulmonary resuscitation and clinical demonstration of patient care skills.

Phase I Courses

Fall Session

COURSE NAME: Radiologic Physics
COURSE NUMBER: RADG 42.350
PHASE: I
CREDIT HOURS: 2
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: College Algebra or Statistics, General Inorganic Chemistry, RADG 42.310 Intro to Radiologic Sciences

COURSE DESCRIPTION:

This course reviews the concepts of atomic structure and electromagnetism, and study of radiation -- its nature, production and medical applications. 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. The course emphasizes clinical applications of physics concepts in the safe operation of high voltage radiologic equipment.

COURSE NAME: Radiographic Procedures I
COURSE NUMBER: RADG 42. 380
PHASE: I
CREDIT HOURS: 5
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
REQUIRED PREREQ: BIO 281 & 282 Anatomy & Physiology I & II, RADG 42.331 Methods of Patient Care

COURSE DESCRIPTION:

This course employs 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. The curriculum integrates the Radiographic Procedures course and the Radiographic Clinical Experience course. It promotes student clinical competence in all assigned radiographic procedures as well as a thorough knowledge of related anatomy and positioning theory and concepts. As the course progresses, it integrates clinical applications of radiation protection and technique selection as appropriate. This course includes laboratory experiences

COURSE NAME: Pharmacology
COURSE NUMBER: RADG 42. 430

PHASE: I
CREDIT HOURS: 2
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: RADG 42. 330 Methods of Patient Care, RADG 42.320 Medical Terminology, RADG 42.310 Intro to Radiologic Science

COURSE DESCRIPTION:

This course explores the role of the radiographer in the administration of contrast media and related medications. Covered topics include: the radiographer scope of practice, legal implications, pharmacology overview, drug measurements and dose calculations, contrast media, preventive care and emergency response to contrast media reactions, imaging pharmaceutical compatibility, select drug administration techniques, and documentation requirements.

COURSE NAME: Radiography Clinical Experience I
COURSE NUMBER: RADG 42.305
PHASE: I
CREDIT HOURS: 3.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: RADG 42. 331 Methods of Patient Care, RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.320 Medical Terminology, RADG 42.301 Radiography Clinical Orientation

COURSE DESCRIPTION:

In this course, the student progresses through a series of clinical rotation assignments which reinforce and provide opportunities for observation, assistance and participation in radiographic procedures which are covered in the Radiographic Procedures I course and patient care skills covered in the Methods of Patient Care course. Emphasis is placed on application of concepts in the actual performance of procedures. Students will complete 300 hours of clinical experience in general and fluoroscopic radiographic procedures under direct supervision of a radiographer. The student will begin documenting competency in radiographic and patient care procedures.

Phase II Courses
Spring Session

COURSE NAME: Radiographic Imaging
COURSE NUMBER: RADG 42.371
PHASE: II
CREDIT HOURS: 3.0
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences RADG 42.301 Radiography Clinical Orientation, RADG 42.320 Medical Terminology, RADG 42.331 Methods of Patient Care, RADG 42.350 Radiographic Physics, RADG 42.430 Radiographic Pharmacology

COURSE DESCRIPTION:

This course provides the student with the knowledge of x-ray generation and the prime factors that govern and influence the production of x-rays, radiographic films, sensitometry, intensifying screens, automatic processing and processor quality control and artifact identification. It is designed to develop the student's understanding of radiographic quality, the photographic and geometric properties which control and influence radiographic quality (density, contrast, detail, and distortion), technical factor selection systems including automatic exposure control, and accessory radiographic devices (beam restriction, filtration, grids). This course includes demonstrations and laboratory activities to reinforce concepts. Problem solving and critical thinking skills will be emphasized in technique formulation and exposure calculations.

COURSE NAME: Radiographic Procedures II
COURSE NUMBER: RADG 42. 381
PHASE: II
CREDIT HOURS: 5
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: Human Anatomy & Physiology I & II
RADG 42. 380 Radiographic Procedures I, RADG 42.350 Radiographic Physics, RADG 42.331 Methods of Patient Care, RADG. 42.430 Pharmacology

COURSE DESCRIPTION:

This course is a continuation of Radiographic Procedures I, and includes all routine and selected non-routine procedures of the: lower extremity, spine, bony thorax, cranium, facial bones and sinuses. The course includes laboratory, and is integrated with the Radiographic Clinical Experience course. Following completion of Procedures II, the student is able to perform all routine radiographic examinations. The student must integrate concepts from radiation protection and exposure technique to produce optimal quality diagnostic radiographs with minimal radiation exposure to the patient. This course is a continuation of the Junior level Radiography Clinical Experience, utilizing week long clinical rotation assignments. Emphasis is on continued development of clinical competency and professional development

COURSE NAME: Radiographic Pathology I
COURSE NUMBER: RADG 42. 440
PHASE: II
CREDIT HOURS: 2

INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: RADG 42.320 Medical Terminology, Human Anatomy & Physiology I & II, RADG 42.380 Radiographic Procedures I, RADG. 42.305 Radiographic Clinical Experience I, RADG 42.331 Patient Care

COURSE DESCRIPTION:

This course presents a body system approach to the demonstration of human diseases through medical imaging. The course emphasizes adaptations of routine positioning and radiographic technique to best demonstrate pathology and maximize diagnostic quality. Covered topics include patient care considerations relative to disease processes. Discussions include which imaging method or modality will best demonstrate each pathological condition. The course includes review of radiographs and films from Computed Tomography, Ultrasound, Magnetic Resonance, Mammography, Special Procedures and Nuclear Medicine. Systems covered include the respiratory, skeletal, gastrointestinal, and urinary

COURSE NAME: Ethics and Law in the Radiologic Sciences
COURSE NUMBER: RADG 42.335
PHASE: II
CREDIT HOURS: 2
INSTRUCTOR: Leia Levy, MEd., RT(R)(T)
PREREQUISITES: RADG 42.330 Methods of Patient Care, RADG 42.310 Introduction to Radiologic Sciences, RADG 42.350 Radiographic Physics, RADG 42.380 Radiographic Procedures I, RADG 42.430 Pharmacology

COURSE DESCRIPTION:

This course provides the student with an understanding of the parameters of professional practice and the legal and ethical responsibilities of the radiologic sciences professional. Covered topics include: elements of ethical behavior, ethical issues and dilemmas in health care, interacting with the terminally ill patient, the scope of practice of radiologic sciences professionals, sources of law, elements of malpractice, employment issues, and litigation. The course emphasizes the student's ability to apply concepts of ethics and law in the development of professional attributes. Course requirements include leading class discussions of issues and case studies.

COURSE NAME: Radiography Clinical Experience II
COURSE NUMBER: RADG 42.307
PHASE: II
CREDIT HOURS: 3.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)

PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.350 Radiographic Physics, RADG 42.380 Radiographic Procedures I, RADG 42.430 Pharmacology, RADG 42.331 Patient Care, RADG 42.305 Radiography Clinical Experience I

COURSE DESCRIPTION:

This course is a continuation of Radiography Clinical Experience I. Students complete clinical rotation assignments in which reinforce and provide opportunities for observation, assistance and participation in radiographic procedures which are covered in the Radiographic Procedures II course and patient care skills covered in the Methods of Patient Care course. Emphasis is placed on application of concepts in the actual performance of procedures.

Phase III Courses
Summer Session

COURSE NAME: Special Procedures
COURSE NUMBER: RADG 42.481
PHASE: III
CREDIT HOURS: 3.0
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.301 Radiography Clinical Orientation, RADG 42.305 & 42.307 Radiography Clinical Experience I & II, RADG 42.380 & 42.381 Radiographic Procedures I & II, RADG 42. 440 Radiographic Pathology I, RADG 42.350 Radiographic Physics, RADG 42.371 Radiographic Imaging

COURSE DESCRIPTION:

This course covers the advanced radiographic, fluoroscopic and invasive procedures, emphasizing patient care, procedural protocol, and equipment and accessories used. This course covers the following topic areas: trauma radiography, pediatric and geriatric radiography, special procedures (eg. Myelography, sialography etc.) and tomography. Opportunities to explore advanced imaging modalities (CT, MRI, and cardiovascular interventional procedures, Nuclear Medicine, Radiation Therapy, Ultrasound, Mammography and Bone Densitometry) are also provided in this course.

COURSE NAME: Digital Radiography and PACS
COURSE NUMBER: RADG 42.372
PHASE: III
CREDIT HOURS: 2
INSTRUCTOR: John R. Sole
PREREQUISITES: RADG 42.350 Radiographic Physics, RADG 42.371

**Radiographic Imaging, RADG 42.380 & 42.381
Radiographic Procedures I & II, RADG 42.305 & 42.307
Clinical Experience I & II**

COURSE DESCRIPTION:

This course provides the student with knowledge of how to acquire, process, and produce clear radiographic images using CR/DR equipment. How to work with CR/DR workstations, including advanced image processing and manipulation functions. The student will understand PACS workstations, archiving solutions, and system architectures. The course will cover the most effective techniques for digitizing film, printing images, and preparing image files. Comprehensive quality control and management guidelines for PACS, CR, and DR.

COURSE NAME: Sectional Anatomy
COURSE NUMBER: RADG 42.421
PHASE: III
CREDIT HOURS: 2.0
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
REQ'D Human Anatomy and Physiology I & II
PREREQUISITES: RADG 42.380 & 42.381 Radiographic Procedures I & II,
RADG 42.440 Radiographic Pathology I

COURSE DESCRIPTION:

This course provides the student with an understanding of anatomy from a three dimensional perspective. The study of anatomy in the transverse, sagittal, and coronal planes enhances the student's understanding of gross anatomy and patient positioning. The course provides clinical application of information to the cross sectional imaging modalities of Computed Tomography and Magnetic Resonance Imaging. The course utilizes a body region approach to sectional anatomy, and emphasizes the location and relative position of the structures studied.

COURSE NAME: Radiography Clinical Experience III
COURSE NUMBER: RADG 42.407
PHASE: III
CREDIT HOURS: 3.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences , RADG 42.301 Radiography Clinical Orientation, RADG 42.380 & 42.381 Radiographic Procedures I & II, RADG 42.305 & 42.307 Radiography Clinical Experience I & II,

COURSE DESCRIPTION:

This course is a continuation of Radiography Clinical Experience II. The course emphasizes the continued development of clinical competency and professional development. Senior students complete clinical rotation assignments which reinforce and provide opportunities for observation, assistance and participation in radiographic procedures which are covered in the Procedures and Special Procedures courses and

patient care skills covered in the Methods of Patient Care course. Emphasis is placed on application of concepts in the actual performance of procedures. Students will complete 300 hours of clinical experience in general radiographic and fluoroscopic procedures and trauma radiography under direct and/or indirect supervision of a radiographer as appropriate. The student will continue attaining, maintaining and documenting competency in radiographic procedures. Students are also provided an opportunity to observe in some of the advanced imaging modality departments.

Phase III
Fall Session

COURSE NAME: Radiographic Critique I
COURSE NUMBER: RADG 42. 410
PHASE: III
CREDIT HOURS: 2
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: RADG 42.380 Radiographic Procedures I, RADG 42. 381 Radiographic Procedures II, RADG 42. 371 Radiographic Imaging I, RADG 42.372 Radiographic Imaging II, 42.305 Radiography Clinical Experience I, RADG 42.307 Radiography Clinical Experience II, RADG 42.407 Radiography Clinical Experience III

COURSE DESCRIPTION:

Through the evaluation of radiographs, the student integrates concepts learned in previous course work to critique the diagnostic quality of radiographs at the viewbox. This course emphasizes critical thinking, synthesis of information from across the curriculum, and the application of theory in practice. Covered topics include guidelines for radiographic technique, and radiographic critique of the chest, abdomen, upper extremity, lower extremity, hip and pelvis.

COURSE NAME: Health Care and Radiology Administration I
COURSE NUMBER: RADG 42. 460
PHASE: III
CREDIT HOURS: 1
INSTRUCTOR: Leia Levy, MEd., RT(R)(T)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences, RADG 42.335 Ethics and Law in the 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, and health insurance. The course focuses on the forces and concepts driving health care today. Course discussions include how these changes are likely to affect the future of the industry, the delivery of radiologic services, and the individual health care worker.

COURSE NAME: Radiographic Pathology II
COURSE NUMBER: RADG 42. 441
PHASE: III
CREDIT HOURS: 2
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: Human Anatomy & Physiology I & II, RADG 42. 320
Medical Terminology, RADG 42. 440 Radiographic
Pathology I, RADG 42.380 Radiographic Procedures I,
42.381 Radiographic Procedures II

COURSE DESCRIPTION:

This course is a continuation of RADG 42.440, covering pathology of the following body systems: cardiovascular, nervous, hematopoietic system, endocrine, reproductive, and miscellaneous disorders.

COURSE NAME: Radiobiology & Radiation Protection
COURSE NUMBER: RADG 42.360
PHASE: III
CREDIT HOURS: 2
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: Human Anatomy & Physiology I & II, RADG 42. 350
Radiologic Physics, RADG 42.371 Radiographic
Imaging I, RADG 42.372 Radiographic Imaging II

COURSE DESCRIPTION:

The radiation biology segment of this course provides an overview of the principles of the interaction of radiation with living systems. The course presents the effects of irradiation of biological molecules and organisms, and the factors affecting biological response. 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 course emphasizes the responsibility of the radiologic sciences professional in providing radiation protection to the patient, personnel and the public. The concepts covered include: ALARA (As Low As Reasonably Achievable) NID (Negligible Individual Dose), 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.

COURSE NAME: Radiography Clinical Experience IV
COURSE NUMBER: RADG 42.408
PHASE: III
CREDIT HOURS: 4.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic
Sciences, RADG 42.301 Radiography Clinical
Orientation, RADG 42.380 Radiographic Procedures I,
RADG 42.381 Radiographic Procedures II, RADG

**42.305 Radiography Clinical Experience I, RADG
42.307 Radiography Clinical Experience II, RADG
42.407 Radiography Clinical Experience III**

COURSE DESCRIPTION:

This course is a continuation of the Radiography Clinical Experience III. The course emphasizes the continued development of clinical competency and professional development. Senior students complete clinical rotation assignments which reinforce and provide opportunities for observation, assistance and participation in radiographic procedures which are covered in the Procedures and Special Procedures courses and patient care skills covered in the Methods of Patient Care course. Emphasis is placed on application of concepts in the actual performance of procedures. Students will complete 400 hours of clinical experience in general radiographic and fluoroscopic procedures and trauma radiography under direct and/or indirect supervision of a radiographer as appropriate. The student will continue attaining, maintaining and documenting competency in radiographic procedures. Students are also provided an opportunity to observe in some of the advanced imaging modality departments.

**Phase IV Courses
Spring Session**

**COURSE NAME: Radiographic Critique II
COURSE NUMBER: RADG 42. 411
PHASE: IV
CREDIT HOURS: 2
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
REQUIRED PREREQ: RADG 42.380 Radiographic Procedures I, RADG 42. 381 Radiographic Procedures II, RADG 42. 371 Radiographic Imaging I, RADG 42.372 Radiographic Imaging II, RADG 42. 410 Radiographic Critique I**

COURSE DESCRIPTION:

Critique II is a continuation of Critique I, covering radiographic critique of the spine, bony thorax, cranium and facial bones.

**COURSE NAME: Health Care and Radiology Administration II
COURSE NUMBER: RADG 42. 461
PHASE: IV
CREDIT HOURS: 1
INSTRUCTOR: Leia Levy, MEd. RT(R)(T)
REQUIRED PREREQS: RADG 42.460 Health Care and Radiology Administration I**

COURSE DESCRIPTION:

This course is a continuation of RADG 42.460. This portion will cover topics related to quality care and management issues in radiology and radiation therapy departments. During the course, students will take a closer look at current changes in health care and how they impact decisions regarding future planning and delivery of services. This course is also a Writing Intensive Course (WIC), which means that a significant amount of the learning activities have been designed to give students continued opportunity to further develop writing skills while meeting course objectives

COURSE NAME: Quality Management
COURSE NUMBER: RADG 42. 450
PHASE: III
CREDIT HOURS: 2
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
PREREQUISITES: RADG 42.350 Radiologic Physics I, RADG 42.371 Radiographic Imaging, RADG 42.372 Digital Radiography and PACS

COURSE DESCRIPTION:

This course covers continuous quality improvement programs and the application of quality management concepts in diagnostic radiology. Covered topics include governmental impact on quality management and the JCAHO 10 Step Program. Also included are quality control and quality assurance for darkroom, processors, silver recovery, radiographic equipment, ancillary equipment, fluoroscopic equipment, advanced imaging equipment, and repeat and artifact analysis.

COURSE NAME: Radiography Registry Review
COURSE NUMBER: RADG 42.491
PHASE: IV
CREDIT HOURS: 3.0
INSTRUCTOR: Steve L. Vogt MSRS, RT(R)(MR)(CT)(BD)
And
Stefanie K. Gardner BS, RT(R)
PREREQUISITES: All RADG courses

COURSE DESCRIPTION:

This course reviews each of the content areas of the ARRT examination, to prepare the student for certification. It assists the student in organizing review efforts, and emphasizes the synthesis of information from across the curriculum. The course includes developmental testing, simulated registry examinations, review of radiographs and review games. An average 80% score for all simulated registry examinations is a prerequisite to graduation.

COURSE NAME: Radiography Clinical Experience V
COURSE NUMBER: RADG 42.409
PHASE: IV
CREDIT HOURS: 4.0
INSTRUCTOR: Stefanie K. Gardner, BS RT(R)
PREREQUISITES: RADG 42.310 Introduction to Clinical Radiologic Sciences RADG 42.301 Radiography Clinical

Orientation, RADG 42.380 Radiographic Procedures I, RADG 42.381 Radiographic Procedures II, RADG 42.305 Radiography Clinical Experience I, RADG 42.307 Radiography Clinical Experience II, RADG 42.407 Radiography Clinical Experience III, RADG 42.408 Radiography Clinical Experience IV

COURSE DESCRIPTION:

This course is a continuation of Radiography Clinical Experience IV and provides opportunity for final student learning outcomes assessment. Phase IV clinical requirements include successful completion of final clinical competencies in all major areas of radiography including critical thinking and problem-solving. Successful completion of final competencies is a program graduation requirement. Emphasis in this course is on continued professional development and proficient performance of all radiographic procedures, with opportunity for continued exploration during of the advanced imaging modalities.