The Division of Health Professions
Radiography Program
Student Handbook

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Welcome Statement

Welcome to the Radiography Program sponsored by Bergen Community College! We are pleased to have you as a part of the Radiography Program. This program is one of eleven disciplines within The Division of Health Professions.

The Bergen Community College Radiography Program has a diverse number of clinical education centers that afford our students with extensive experience with a wide variety of patient conditions, imaging cases, and equipment. Presently, we have six clinical education centers located in the northern New Jersey area.

Our energized laboratory is located on the first floor of the Health Professions Building of Bergen Community College. It has state of the art imaging technology that consists of digital imaging, computed radiography. The x-ray laboratory affords the opportunity to learn, apply, and perfect skills that are essential for the clinical education aspect of the radiography curriculum. Our lab is equipped with an energized x-ray unit, computed radiography processor, digital portable X-ray machine, 6-computer stations with related software, and a large number of imaging phantoms.

It is crucial that these documents are placed orderly in a three-ring binder so that you will have access to, maintain all clinical, and program documents and forms for the duration of the two years.

We wish to welcome each of you to the program and hope for much success in all of your educational endeavors!

BCC Program Administration and Radiography Program Officials

The following are the program officials for the *Radiography Program:*

Susan Callahan-Barnard, DHSc
Dean
Division of Health Professions
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Radiography Program Mission Statement

The radiography program sponsored by Bergen Community College is committed to providing our students with a professional education in diagnostic imaging. The cooperative effort between our faculty and students creates an essential climate for the development of clinical competency and a multiplicity of other professional skills. Throughout the students' education in our program, the profession's ethical principles and practices are introduced and reinforced.

Program Goals and Outcomes

Upon completion of the program, our students will be prepared to:

Goal 1: Perform all clinical obligations competently.

- Outcome 1: Students will demonstrate proper use of imaging equipment when performing radiographic examinations.
- Outcome 2: Students will demonstrate competence when performing complex imaging cases in RAD 290.

Goal 2: To use principles of critical thinking in solving issues:

- Outcome 3: Students will use critical thinking to solve problems in the clinical education setting.

- Outcome 4: Students will use critical thinking in solving exposure related problems in the application of theory to practice.

Goal 3: Demonstrate competent and proficient communication skills.

- Outcome 5: Students will use professional communication effectively with other professionals in the health care setting.

- Outcome 6: Students will use effective communication with patients when performing cases in the clinical education setting.

Goal 4: Accomplish all tasks and pursue all such actions as a professional.

- Outcome 7: Students will demonstrate professional demeanor throughout all patient and professional interactions in class, laboratory and patient care experiences.

Curriculum Learning Objectives

- Use professional oral and written communication
- Demonstrate knowledge of human structure, function, and disease
- Provide patients with the proper level of care and comfort

<u>Radiography Program Chain of Command</u>

Below is the chain of command to be followed with regard to academic related issues:

1. The student meets with the faculty and attempts to solve the issue.
2. If the issue is unresolved, the student will meet with the program director (Prof. Amy Diaz)
3. Professor Diaz serves as the Chair of Health Professions; you need not elevate the issue to her again.
4. Lastly, the student makes an appointment to meet with Dr. Barnard, the Dean of the Division of Health Professions.

Professional and Technical Standards of Professional Practice

The applicant for admission to the Bergen Community College Radiography Program should have the following technical skills to perform procedures competently, proficiently and safely:

- The student must be able to read and interpret patient information in charts, electronic medical records or Doctor's orders.

- Corrective devices are permissible (if needed) to meet the minimum requirement standards. This includes hearing aids, glasses, etc.

- The student must be able to communicate in English in order to converse with and instruct the patient to relieve anxiety and gain their cooperation during procedures.

- The student must be able to hear a patient talk in a normal tone from a distance of 20 feet.

- The student must be able to observe the patient in order to assess the patient's condition and/or needs from a distance of at least 20 feet.

- The student must be able to render services and/or assistance to all patients depending on the individual patient's needs and ability in moving, turning, getting on and off the x–ray tables, etc.

- The student must be able to push, pull, and lift 40 pounds.

- The student must be able to stand for long periods, while also possibly wearing a lead apron, and be able to walk a distance of 2 miles during a normal clinical day.

Upon completion of the appropriate instruction, the student must be able to:

- Safely move a stretcher and/or wheelchair without injury to self, patient, or others.

- Safely manipulate mobile imaging units, turning corners, getting the unit on and off an elevator, and manipulating the unit inside the patient's room.

- Manually move the x–ray machine and manipulate the tube at standard and nonstandard heights and angles up to 7 feet.

- Draw up sterile contrast media and other solutions without contaminating the syringe and/or needle, etc.
- Select exposure factors by manipulating dials, buttons, and switches.
- Place an image receptor in Bucky trays and spot film devices and properly manipulate all locks.
- Physically administer emergency care including CPR.
- Evaluate radiographic images to make certain that radiographs contain proper identification and are of diagnostic value.

Radiography Professional Organizations

American Registry of Radiologic Technologists
1255 Northland Drive,
St. Paul, MN 55120-1155
Phone: 651-687-0048
Email: www.arrt.org

Joint Review Committee on Education in Radiologic Technology
20 N. Wacker Drive, Suite 2850,
Chicago, Illinois, 60606-3182
Phone 312-704-5300
Email: www.jrcert.org

New Jersey Department of Environmental Protection
Bureau of X-ray Compliance
Trenton, NJ
1-609-984-5890

American Society of Radiologic Technologists
15000 Central Ave. SE,
Albuquerque, NM 87123-3909
Phone: 800-444-2778
Phone: 505-298-4500
Email: www.asrt.org

Radiography Program Policies and Mandates

CPR Policy

Students must be certified in "CPR-BLS for Healthcare Professional/Providers" or equivalent prior to the beginning of clinical education. Copies of the card will be made and placed on file. The cards are maintained as a part of the student's clinical folder.

Course and Lesson Objectives Policy

All academic course objectives are published on each syllabus. Each course syllabus is uploaded, using PDF format, onto Moodle for each course in the program.

Each course in the radiography program is web-enhanced or may be hybrid. The letter HY indicates hybrid courses. Each lesson or unit is indicated as a learning module icon when logged onto Moodle.

Graduation Requirements Policy

In order to graduate from this program, the student must meet all of the following requirements.

- Complete all didactic and clinical education radiography (RAD) courses with a final grade of at least a 77% (C).
- Maintain (C) and a 2.50 Grade Point average throughout the program.
- Complete all General Education courses.
- Complete all required clinical competency evaluations.
- Complete all general patient care simulations.
- Pass the Freshmen Comprehensive Examination (RAD 283) with 80% or higher.
- Pass Radiography Program Exit/Final Examination (RAD 290) with 80% or higher.

Compliance with the American Society of Radiologic Technologists: Code of Ethical Practice Policy

The ASRT hyperlink is included as part of the student's professional handbook. The program reinforces the content during orientation and throughout each radiography course in this program. See Addendum of the ASRT Code of Ethics. The website can be located by logging onto www.asrt.org.

New Jersey State Licensure Requirements Policy

A New Jersey State licensure is required for employment in the capacity of a Radiographer (Radiologic Technologist). Graduates are not permitted to work in that capacity without a New Jersey license. States vary with respect to licensure laws. Students are responsible to be aware of state specific mandates with respect to licensure requirements.

Upon successful completion of the ARRT examination in Radiography, graduates may APPLY for a New Jersey State license through the following agency:

State of New Jersey
Department of Environmental Protection
Bureau of X-ray Compliance
25 Arctic Parkway
P.O. Box 420 (Mail Code 25-01)
Trenton, New Jersey, 08625-0420
Phone: (609) 984-5634

Radiography Grade Assignment Policy

Letter grades for each radiography course are assigned as follows:

- A 92-100%
- B+ 89-91.9%
- B 83-88.9%
- C+ 80-82.9%
- C 77-79% (the minimal passing cut-off score is 77%)
- D 75-76.9% (Unsatisfactory-not acknowledged by the program)
- F 74.9% and below (Unsatisfactory)

Health professions students are held to a higher standard due to the fact that they are applying ionizing radiation to patients.

Students enrolled in the program must have a working knowledge of all the Radiography Core curriculum.

Minimal Satisfactory Final Course Outcome Policy

The minimal passing grade for all Radiography Courses is 77%. Numerical final grade averages that are less than 77% are unsatisfactory and require the course to be repeated. If any two radiography courses are failed at any time during the two-year duration, the student will be dismissed from the program.

Students have a three-year span to complete the program. However, the following is the protocol that is followed by this program.

The student MAY reapply for admissions after a period of three (3) years. This will afford the time needed to make academic or any other changes that are needed for success. If the student reapplies, and is accepted, yet demonstrates unacceptable performance in any two radiography courses (RAD) the student will be dismissed permanently from the program.

Examinations Policy

The use of any electronic devices (including, but not limited to, cellphones, smart watches, earbuds/headphones or Bluetooth devices, tablets) or any other electronic item is PROHIBITED during testing. No electronic device is to be on the person during any test or assessment (except for any approved calculators or personal devices with which the student is permitted to use to access the assessment). Electronic devices must be safely locked in a book bag or backpack or stored away from the testing area. Use of any unapproved device is considered a breach of academic integrity. Any occurrence will be reported to the Dean of Health Professions.

Course Attendance Policy

Students are expected to be present for each class and laboratory session and arrive on time. Poor attendance and tardiness is unprofessional, unacceptable, and will not be tolerated by the faculty. Poor attendance will affect your ability to meet course objectives. It is unfair to the other students who regularly attend to allow for consistent late or absent events by others. The faculty will not allow abuse with respect to time, lateness, or absences. Points will be deducted for each incidence from the final grade if the student is found in violation of this policy.

Required Insurance Policies

Professional Malpractice Insurance

Bergen Community College requires all Health Professions students to carry his or her own Professional Liability and Medical Health Insurances.

For legal and safety compliance, students are to be in the clinical site during assigned times only and when supervised by a Bergen Community College Clinical Instructor or designee.

Medical Insurance

It is the responsibility of the students to provide PROOF of their own medical insurance coverage. The college may or may not offer low- cost medical insurance plans. This is dependent upon current college policies.

Proof of medical insurance must be given to the Office of Health Services. Proof of Professional Liability insurance must be provided to the Clinical Education Coordinator.

Any medical charge incurred while at clinical is the responsibility of the student.

Maintaining Medical Record and Requirements Policy

Students must have a physical examination and immunizations, before the start of clinical. There are no exceptions to this policy. Those students who are not in compliance will not be able to participate in clinical education activities. Each day missed, as a result, will be recorded as an unexcused absence.

Medical records will be maintained in the Bergen Community College Health Office. **It is the student's responsibility to keep their medical requirements and records up to date each semester. A clearance letter must be provided to the program Clinical Education Coordinator before the start of each semester (the blue form that is issued by the Health Services department)**

Privacy Policy, Buckley Amendment

Bergen Community College's Radiography Program informs students of the Family Educational Rights and Privacy Act of 1974. The program maintains strict confidentiality practices of all clinical and didactic information. Your records are locked in secured areas. This Act is designated:

-To protect the privacy of education records

-To establish the right of students to inspect and review their education records,

-To challenge the contents of their education records,

-To have a hearing if the outcome of the challenge is unsatisfactory, to submit an explanatory statement for enclosure in the record if the outcome of the hearing is unsatisfactory

-To prevent disclosure, and to secure a copy of the College policy, which includes the location of all education records.

-Students also have the right to file complaints about issues concerning alleged failures of the college to comply with the Act. Complaints may be sent to the address below:

Family Educational Rights and Privacy Office (FERPA)
Department of Education, Room 4511, Switzer Building,
Washington, D.C. 20202, telephone (202) 655-4000

Communicable Disease / Covid Policy

The purpose of this policy is to prevent exposure to and manage communicable diseases and infection to prevent its spread to others. Medical examinations and immunization requirements must be met. These include but are not limited to **Covid** shots (2) and at least (1) boosters.

The program must be informed immediately whenever the student discovers a communicable condition. If this occurs at the clinical education center, the student will be dismissed from clinical participation. Students are responsible for seeking medical attention.

Students may participate in clinical education when a medical clearance note from a physician is received by the Clinical Education Coordinator.
In the event a student comes down with **Covid** the Clinical Education Coordinator, and the school nurse MUST be informed.

Radiation Safety Practices Policy

Freshmen students will be introduced to radiation safety during orientation. Subsequently, concepts of radiation safety are reinforced in all academic and clinical courses. The Clinical Education Coordinator, Professor Elizabeth Romano, serves in the capacity of Radiation Safety Officer for the program. Specific policies relating to the use of dosimeters and allowable exposure amounts are in the Clinical Handbook.

All students are given one dosimeter to wear for clinical and laboratory classes. Dosimeters must be worn at all times in a radiation-producing environment and must be changed on a regular basis (approximately every 3 months). It is the responsibility of the student to bring, wear and exchange the dosimeter to the laboratory and clinical education center. A student is not allowed, for safety reasons, to participate in clinical or lab activities without a dosimeter.

Student's are allowed an effective dose limit of 0.1 rem (1mSv) annually. Student's radiation dosimeter reports are available for student review and are maintained by the Radiation Safety Officer indefinitely. Students who have a dosimeter reading greater than minimal/negligible/0 will be notified. To view your own reports, you can make an appointment with the Radiation safety officer. Students will be notified of their most recent dosimeter report within thirty (30) days of report receipt by the school.

In the event that a student receives an exposure of 50 mrem (0.5 mSv) or greater on any monthly radiation dosimetry report, or 100 mrem (1.0 mSv) or greater on any bimonthly radiation dosimetry report, or 150 mrem (1.5 mSv) or greater on any quarterly report, or an exposure that exceeds any of the occupational limits in N.J.A.C. 7:28-6.1, the school shall begin an investigation to find the cause and prevent recurrence of the exposure. The investigation report shall be completed within 30 calendar days of the school's receipt of notification of the exposure. This investigation report shall include any action to be taken to reduce unnecessary radiation exposure. The investigation report shall be given to the student and shall be maintained in the student's file. If any of the occupational limits in N.J.A.C. 7:28-6.1 is exceeded, a copy of the investigation report must be submitted to the department. Within 90 calendar days of departure from the school, the school shall provide each student with a complete record of his or her radiation exposure history.

Pursuant to Subchapter 19 discussing Radiologic Technology, the NJDEP requires under 7:28-19.12 the following provisions:

1. Ensure that students are not in the primary beam
2. Students are not permitted to remain in the x-ray room outside the control booth during an x-ray exposure unless the student is provided with a protective apron or shield that is at least 0.5 mm of lead equivalent; or

3. Students are not permitted to engage in any other practices likely to result in unnecessary exposure to ionizing radiation
Students are not permitted to hold an image receptor during any radiographic procedure.
Students are not permitted to hold patients for any reason during an exposure.

Magnetic Resonance Imaging Safety

Students are provided an orientation regarding MRI screening and safety prior to the start of clinical. Students are made aware that due to the nature of the MRI equipment, access to specific locations within the clinical setting will be limited in nature or completely restricted. Since the Students are allowed to assist with patients located in MRI zones I & II.

Completion of an MRI screening form is required prior to the start of a student's clinical rotation. Should a student's MRI clearance change, they are to notify the program and complete an updated screening form. All MRI screening forms will be held in the student's personal record on file.

Electronic Devices and Cellular Phone Usage Policy

The use of cellular phones/electronic devices in the classroom is **distracting** to the instructor and other students and therefore prohibited during all class, laboratory, and clinical sessions.

There is to be **no texting** or use of the phone to peruse the internet while in class. Cell phones and texting is prohibited in the clinical site as well.

Once entering the classroom and or clinical education center, cell phones MUST be turned off and kept in a designated place (to be determined by the instructor) during the classroom or clinical site. If you are found to be using this device or any electronic devices during lecture, class, exam, lab, or clinical time, this is considered as insubordinate behavior by the program and you will be asked to leave. If the student becomes argumentative, Public Safety will be called.

UNDER NO CIRCUMSTANCE IS THE USE OF AN ELECTRONIC DEVICE PERMISSIBLE DURING TESTING OR WHEN THE TEST IS BEING REVIEWED. PHOTOGRAPHING AND DISSEMINATING THE CONTENTS OF SUCH IS A SERIOUS FORM OF ACADEMIC DISHONESTY. ANY CASE INVOLVING SUCH WILL BE REPORTED TO THE DEAN OF HEALTH PROFESSIONS

Jury Duty and Government Related Protocol Policy

Students who are called for jury duty must take their summons to the Program Officials upon receipt of the summons. Delay in bringing the summons to the proper attention may jeopardize the chances of being excused by the court and will create academic hardships for the student.

Those students, who are presently in Military Service, must inform the Program Director and Clinical Education Coordinator.

When a military student is called to duty, they must inform the program officials and present documentation of the dates that their service is needed.

Permanent Dismissal Policy

The student MAY reapply for admissions after a period of three (3) years if the issue is related to academic performance. This will afford the time needed to make academic or any other changes that are needed for success. Upon readmission, the student will be dismissed permanently from the program if the same pattern of lack of success is repeated.

Causes for permanent dismissal from the radiography program are the result of:

X Acts(s) of insubordination (Webster, 2011 **"**disobedient to authority").
X Serious, illegal acts; unethical actions and behaviors that violate the Professional Code of Ethics.
X Unsafe clinical practices, negligence or incompetence.
X Health problems that interfere with the student's educational goals.
X Misuse of the clinical education centers privileges.
X Consistently failing to follow the program's policies.
X Unsafe practices (radiation & patient safety).
X Dismissal from more than one clinical education center.
X Cases of Academic dishonesty

Clause:

A student who is dismissed from the Radiography Program for the *violations above* is ineligible for readmission. The student has the right to appeal the decision by following the Appeal Process as outlined in the handbook and College catalog. The student will be notified verbally [and in writing] through the Student Conference form.

Substance and or Alcohol Usage/ Abuse Policy

Students are not to attend clinical education activities under the influence of alcohol, drugs or any substances or medications not prescribed by a Physician. The provision of client care in a safe and appropriate manner cannot be compromised at any time. The health and safety of students and others in the clinical setting cannot be jeopardized. Bergen Community College has in place, personal counselors to help students who are encountering difficulty with prescribed, un-prescribed medication and alcohol usage. Sessions with these counselors are private and fully maintaining your privacy is protected by the law.

Workplace Safety Practices Policy

Students are introduced to factors involved in various workplace hazards in RAD 180-Introduction to Radiography. Any injury from chemicals, water, electrical, or blood borne pathogens is brought to the attention of the compliance officer and the department of Health Services for evaluation. The nurse-in-charge will decide if care at one of our local community hospitals is warranted for injuries of any kind.

Program Didactic Grievance Policy

Students must follow the grievance policy as stipulated in the Bergen Community College catalog on page 59. Students must manage the situation with the faculty member. This document may be found electronically on the Bergen.edu web site.

The student must follow the chain of command. The administration will not entertain any circumstance if the student has NOT followed this protocol.

This policy is strictly followed.

	Response time	Program response
Student letter to the program	2 days	2 days
Program Directors Response	2 days	2 days

A two-day period is needed to research the issue, event, or complaint. An electronic notification will be sent to you upon receipt of the response letter from the program. A professional response, as expected, is to follow the hierarchy.

The student's letter must contain only facts regarding the issue, not opinions or suspicions. Detailed facts such as dates, times and locations are needed for accurate investigation of the issue. Opinions are not to be included in any documents or forms.

Grievance Committee: Program Director, Clinical Education Coordinator, Faculty Member

Grievance Policy

Step	Student	Instructor	Program official (s)
1	Report is written in 24 hours of the occurrence. Report is given to the instructor. Student is not to meet with the clinical coordinator or program director during this step	Instructor must inform the student, draft the report and initiate the grievance process with 1-2 business days	Program Director/Grievance Committee receives and reviews student and instructor event reports. The Program Director arranges a formal meeting between student and instructor within 2 business days of receipt of the reports
2	Students are informed of date, time and location of the meeting electronically	A formal meeting takes place within 2 business days of the receipt of the electronic correspondence. A report to the Program Director/ Grievance committee must be received within 2 days	The Grievance Committee will review the report upon receipt and draft a follow up report within 2 business days.
3	If the issue remains unresolved, the student must have another meeting within 2 business days of the receipt of the letter from the Program Director/Grievance Committee. The meeting is with the Program Director and the faculty member	The faculty member has a face to face meeting with the student and Program Director/Grievance Committee within 2 business days of the meeting request.	The Program Director serves as a mediator of the meeting between the student and the faculty member. The Grievance Committee will inform the student by letter, the outcome of this meeting. A copy of this letter will be made available to the Program Director and Academic Chair for review.
4	If unresolved, the student must meet with the Dean (or in her absence the ADC) within 2 business days after receipt of the letter.		The Dean/ADC will listen to the issue; The Dean/ADC will render a binding decision. The Dean/ADC will draft a letter of response immediately. The outcome decision is final.

Bergen Community College is accredited by the Middle States Association of Colleges and Schools. The radiography program, sponsored by Bergen Community College, is accredited by Joint Review Committee on Education in Radiologic Technology (JRCERT) www.jrcert.org and New Jersey Radiologic Technology Board of Examiners (NJRTBE). The radiography program adheres to the Standards of an Accredited Program in Radiologic Sciences as published by the Joint Review Committee on Education in Radiologic Technology. Students are provided a

copy of this document in their manual. Students having issues are to follow the official protocol.

Protocol:

a) Address the issue in writing, with supportive documentation, to the program director.

b) If the issue of non-compliance remains unresolved, the student may report an issue non-compliance issue to the accreditation agency:

c) address- Joint Review Committee in Radiologic Technology
20 N. Wacker Drive, Suite 2850
Chicago, IL, 2850-3182

Criminal Background Check and Policy

The student is advised that this is not a BCC policy. CHBCs are required by JCAHO, the accreditation body to which our clinical partner MUST adhere to (their standards of practice). All students are required to complete a criminal background check prior to being accepted to the program. This is required by the clinical education affiliates as is required by their external accreditation agency.

Student Infractions

The student is apprised that any infractions that result in a change of their status must be reported to the Dean of Health Professions and the Radiography Program Director. Such infractions could affect your opportunity to:

- Continue the clinical education experience.
- Be deemed eligible for the certification examination sponsored by the American Registry of Radiologic Technologists.
- Be deemed eligible for an NJ State License, Department of Environmental Protection, and Bureau of X-Ray Compliance (BXC) NJ Radiologic Technology Board of Examiners.

It is imperative that the student maintains a spotless record while in the program and after. Violations could affect ARRT eligibility, licensure and certification renewal, and potential work opportunities.

Freshmen Final Comprehensive Examination Policy

The Freshmen Final Exam is administered at the end of RAD 283 (Freshman Summer U semester). It consists of items that are derived from the content delivered throughout the first year.

To prove didactic competence on the exam, students must achieve a minimum of 80% or higher.

The program affords an intensive review. It is the students' responsibility to maximize their benefit of the review process.

Students have three (3) attempts to pass the examination.

Should the student not pass the comprehensive exam on the third attempt, an "F grade" will be assigned regardless of the average of competency examinations, Profile Evaluation, and Affective Domain.

Senior Exit Examination Policy

Upon completion of RAD 290, the radiography student will take the Senior Final (Exit) Examination (Senior Summer U semester). It consists of items that are derived from the content delivered over the past 2 years. To prove didactic competence on the exam, students must achieve a minimum of 80% or higher. Students who do not achieve an 80% will be required to sign an indemnity (hold harmless clause). The program affords an intensive review. It is the students' responsibility to maximize the benefit of the review process. Students have three (3) attempts to pass the examination or an F grade will be entered, regardless of the other grades acquired in RAD 290.

ETHICS

Students are bound by the ARRT Code of Ethics and the ASRT Standard of Practice. The program has adopted the code of ethical practices and policies pertaining to student behavior from the ARRT/ASRT. Enrollment in Bergen Community College Radiography Program constitutes an agreement to comply with the policies of the school, program, and clinical sites. Regulations affecting admission, promotion, and other policies may be changed at any time by the program faculty and will apply to all students. Students will be notified in writing and required to sign acknowledgement of any policy changes. The program adheres to the Family Education Rights and Privacy Act of 1974. The program does not release any student information to parents or any agency without a signed release of information for the student or a court subpoena for the information. Family Education Rights and Privacy Act (FERPA) and Federal Trade Commission guidelines are followed.

AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS (ARRT) CODE OF ETHICS

1. The Radiologic Technologist acts in a professional manner, responds to patient needs and supports colleagues and associates in providing quality patient care.

2. The Radiologic Technologist acts to advance the principle objective of the profession to provide services to humanity with full respect for the dignity of humankind.

3. The Radiologic Technologist delivers patient care and service unrestricted by concerns of personal attributes or the nature of the disease or illness, and without discrimination, regardless of sex, race, creed, religion, or socioeconomic status.

4. The Radiologic Technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with purpose for which they were designed, and employs procedures and techniques appropriately.

5. The Radiologic Technologist assesses situations; exercises care, discretion and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.

6. The Radiologic Technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment management of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.

7. The Radiologic Technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing the radiation exposure to the patient, self and other members of the health care team.

8. The Radiologic Technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.

9. The Radiologic Technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individuals or the community.

10. The Radiologic Technologist 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.

** Adopted by: The American Society of Radiologic Technologists & the American Registry of RadiologicTechnologists

Academic Dishonesty Policy, Non-Compliance / Complaint Resolution

The radiography program has a zero-tolerance policy regarding issues related to academic dishonesty. Students will receive a zero or F grade for infractions to this policy. This failing grade will be factored into the weight of the quiz, test, or examination that is published on the course syllabus. Refer to the policy in the BCC Catalog regarding Academic Integrity & Consequences.

Keep your behaviors exemplary and above reproach. Do not respond to anyone who tries to disseminate "quasi unscrupulous material"

No test, quiz, or examination is to be printed, photographed, or copied in any way. Students who compromise this policy will receive a zero or F grade. The program has a zero-tolerance policy for academic integrity infractions.

Our “on-line” platform, (Moodle) the web enhanced classroom, instructional and testing format, tracks all student activity with dates, times, computer number, IP address etc. It can deliver a history of what a student accessed, how many and what kind of attempts were made to access material posted on the Moodle course rooms. This includes, but is not limited to all exams, quizzes and powerpoint lecture presentations. Any access to any material that the student was not given permission for, or any unauthorized access to any exams, printing or saving of exams or exam content will be considered academic dishonesty and subject to program dismissal.

Academic integrity is challenged when a student is charged with academic irregularities, such as cheating during an examination or plagiarism in the preparation of an essay, laboratory report, or oral presentation.

The program will adhere to BCC Policies regarding academic regulations as found in the pages named academic dishonesty in the 2016-2017 College Catalog.

- Bergen Community College is fully accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.
- The Bergen Community College Radiography Program is accredited by the New Jersey Radiologic Technology Board of Examiners (NJRTBE) and the Joint Review Committee on Education in Radiologic Technology (JRCERT)
- Radiography educational programs, follow the Standards of an Accredited Program in Radiologic Sciences.
- The Standards are posted in the classroom and laboratory, and may be made available to the student upon request.
- Issues of non-compliance with the Standards must be brought to the attention of the Program Director.
- The Complaint Resolution Form will be used to document and track the allegation.
- The program will immediately act to investigate the allegation(s)
- If found to be in non-compliance, the program will take immediate action for correction.
- Corrective action will take place within 30 days of the initial report.
- Issues of non-compliance with the Standards should be addressed or reported with the following agencies:

1. Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, Illinois, 60606-3182
312-704-5300
mail@jrcert.org

0. New Jersey Radiologic Technology Board of Examiners
Department of Environmental Protection
Bureau of X-Ray Compliance
P.O. Box 415
Trenton, New Jersey 08625
609-984-5890

Videotaping, Audiotaping and Social Media

Students are to abide by the college's social media policy and the clinical affiliate policy. These are designed to protect yourself as well as the institution. Using social networking sites and creating unprofessional posts may be viewed as harassment, slander, or defamation. Social media networks must be used carefully while in the program and professionally. It is in violation to record a person without their consent. Future employers may use social media in their interviewing or hiring process. The program is often contacted for references post-graduation.

The Radiography Program supports the use of social media to reach audiences important to the Program such as students, prospective students, faculty, and staff. The College presence or participation on social media sites is guided by college policy. This policy applies to radiography students who engage in internet conversations. Distribution of sensitive and confidential information is protected under HIPAA and FERPA whether discussed through traditional communication channels or through social media.

Social media is defined as mechanisms for communication designed to be disseminated through social interaction, created using highly accessible and scalable publishing techniques. Social media is commonly thought of as a group of Internet-based applications that are built on the ideological and technological foundations of the web that allows the creation and exchange of user-generated content. Examples include but are not limited to LinkedIn, Wikipedia, Second Life, Flickr, blogs, podcasts, RSS feeds, Twitter, Facebook, YouTube, and Myspace.

While this policy may need to be modified as new technologies and social networking tools emerge, the spirit of the policy will remain the protection of sensitive and confidential information. Social media often spans traditional boundaries between professional and personal relationships and thus takes additional vigilance to make sure that one is protecting personal, professional, and program reputations.

As students, you will want to represent the Radiography Program and the school in a fair, accurate and legal manner while protecting the brand and reputation of the institution. When publishing information on social media sites, remain cognizant that information may be public for anyone to see and can be traced back to you as an individual. Since social media

typically enables two-way communications with your audience, you have less control about how materials you post will be used by others.

POLICY:

- Protect confidential, sensitive, and proprietary information: Do not post confidential or proprietary information about the school, program, staff, students, clinical facilities, patients/clients, or others with whom one has contact in the role of a Radiography student.

- Respect copyright and fair use. When posting, be mindful of the copyright and intellectual property rights of others and of the College. For guidance, visit the College Library.

- Do not use Bergen Community College or Radiography Program marks, such as logos and graphics, on personal social media sites.

- It is expected that during clinical times, cell phones and other personal forms of electronic devices will not be used.

- No personal phone conversations or texting are allowed at any time while in patient/client areas or in the lab or classroom.

- Use of computers (PDAs, Notebooks, etc.) during class shall be restricted to note taking and classroom activities. Use otherwise is distracting for not only the student involved in the activity but those in the immediate area/vicinity.

- No student shall videotape/ photograph professors or fellow students for personal or social media use without the express written permission of the faculty or fellow student. At NO time shall patients/clients be videotaped or photographed. Lectures and any documents or powerpoint presentations are the property of the instructor, Bergen Community College or the published book or paper referenced. Therefore, any photographing, copying, reprinting or any other disseminating manner of those materials is strictly prohibited without written permission. Permission for audio or video recording of lectures is at the instructor's discretion.

- Be aware of your association with Bergen Community College and the Radiography program, in online social networks. If you identify yourself as a student, ensure your profile and related content is consistent with how you wish to present yourself to colleagues, clients, and potential employers

- HIPAA/Privacy guidelines must be followed at all times. ANY identifiable information concerning clients/clinical rotations must not be posted in any online forum or web page nor taken from the institution, such as the patient's name, information on history, including images.

- Ultimately, you have sole responsibility for what you post. Be smart about protecting yourself, and others privacy, and most especially confidential information.

Procedure/Considerations:
There is no such thing as a "private" social media site. Search engines can turn up posts years after the publication date. Comments can be forwarded or copied. Archival systems save information, including deleted postings. If you feel angry or passionate about a subject, it is wise to delay posting until you are calm and clear-headed. Think twice before posting. If you are unsure about posting something or responding to a comment, ask your faculty. If you are about to publish something that makes you even the slightest bit uncertain, review the suggestions in this policy and seek guidance.

Future employers hold you to a high standard of behavior. By identifying yourself as a Bergen Community College student through postings and personal web pages, you are connected to your colleagues, clinical agencies, and even clients/patients. Ensure that content associated with you is consistent with your professional goals.

Continued:

- Radiography students are preparing for a profession that provides services to a public that also expects high standards of behavior.

- Respect your audience.

- Adhere to all applicable college and program privacy and confidentiality policies.

- You are legally liable for what you post on your own site and on the sites of others. Individual bloggers have been held liable for commentary deemed proprietary, copyrighted, defamatory, libelous or obscene (as defined by the courts).

- Employers are increasingly conducting Web searches on job candidates before extending offers. Be sure that what you post today will not come back to haunt you in the future.

- Monitor comments. You can set your site so that you can review and approve comments before they appear. This allows you to respond in a timely way to comments. It also allows you to delete spam comments and to block any individuals who repeatedly post offensive or frivolous comments.

- Do not use ethnic slurs, personal insults, obscenity, pornographic images, or engage in any conduct that would not be acceptable in the professional workplace.

- You are responsible for regularly reviewing the terms of this policy.

Consequences:

- Violations of patient/client privacy with an electronic device will be subject to HIPAA procedures/guidelines and consequences.

- Students who share confidential or unprofessional information do so at the risk of disciplinary action that includes dismissal from the program.

- Each student is legally responsible for individual postings and may be subject to liability if individual postings are found defamatory, harassing, or in violation of any other applicable law. Students may also be liable if individual postings include confidential or copyrighted information (music, videos, text, etc.).

Sexual Harassment

Sexual Harassment is defined as unwelcome sexual advances or sexually explicit comments. Bergen Community College is committed to providing all students and employees an environment free from sexual harassment or discrimination. As stated in the College catalog, the College and the Radiography Department deems sexual harassment in any form as prohibited, unprofessional and unacceptable behavior and in violation of Title VII of the Civil Rights Acts of 1964 and 1990, as amended, Title IX of the Education Amendments of 1972, and the New Jersey Law Against Discrimination, established case law and State Policies. Additional information regarding Bergen Community College Sexual Harassment Policy is published in the 2016-2017 College Catalog under Policies Prohibiting Sexual Harassment.

Professional Attire and Appearance

Students MUST:

- Act in a professional manner while in the classroom, laboratory or clinical site
- Treat each other professionally and with respect at all times.
- Wear your clinical uniform to ALL laboratory classes (not the Lecture classes-RAD 180 or RAD 181). You must also wear closed toe, clinical uniform acceptable shoes in the lab.
- Hair must be up and fastened.
- Males- beards MUST be well groomed (it may be necessary for men to shave beards so that the N-95 masks, used for Covid protection, will make a good seal to the face).
- Maintain high levels of personal hygiene.
- Tattoos must be covered if possible. Tattoos on arms can be covered by sleeves, lab coat or long sleeve shirt if appropriate.
- Earrings either must be of the stud type. No hanging, open or dangling type of earrings.
- It is suggested that necklaces not be worn; however, if a student chooses to wear a “chain” that it be secured under a shirt and not accessible.
- Imitation nails, extensions, tips, gels, wraps, may not be worn to clinical. Refer to Clinical Coordinator and Clinical policies.

Instructor Response Time for Hybrid and Web- Enhanced Courses and Face to Face Course Policy

Instructors will routinely read electronic mail correspondences.

A reasonable response time frame is 1-2 days.

In order to afford a timely and accurate response for tests and examinations, Faculty reserves the right of a response timeframe of seven days. This is for an item analysis to take place and for question validity assurance.

Classroom Etiquette Policy

Due to the nature of the course of study, it is essential to maintain a professional climate at all times while in class. This includes

- the use of cell phones,
- talking relentlessly,
- passing notes,
- disturbing faculty and other students,
- frequently leaving the classroom,
- failure to follow instruction and directions

  Since these behaviors affect the education and learning climate, the disruptive student will be asked to leave.
- Regularly communicate.

Program Obligations Policy

The radiography program is a full-time course of study. Clinical and academic courses run from 8 am to 4 pm, Monday-Friday, for two years (24 months). Each year, students are afforded 9 weeks' vacation per year. It is understood that you must work. This is not under the program's control. The program must follow national standards and state regulations. Some radiography laboratory sections run until 6 pm. It is the student's option to register for late afternoon courses. The amount of time is not to exceed 40 hours/ week.

VACATIONS

- One month (December/Jan)
- Spring break (March)
- One week between spring and summer terms
- 3 weeks in August

Late Arrival Policy during Testing

Students who arrive late will not be admitted into the testing area. The faculties feel that late arrivals unfairly disturb the students who arrived on time and are diligently working at the task. Be advised that any makeup test format will vary from the original assessment. The academic test writing is the prerogative of the instructor.

Repeating Radiography Courses Policy

Students who are unsuccessful with a radiography course and receive an F grade must repeat the course when the course is offered again. The student is advised that they may not progress in the program until the failed course is successfully repeated. Should the repeat of a course yield the second F grade, the student will be permanently dismissed from the program. Please note that the failure of any two radiography courses, at any time, results in the permanent dismissal from the program.

Student Responsibility Policy

Students enrolled in a college program are responsible to keep track of their earned grades. Students are afforded an opportunity to review prior assessments as long as the process remains educational and non-argumentative. Students must keep on them, at all times, the course syllabus, which gives grading weight values so that the student can tabulate their grade and process throughout the courses.

Withdrawal, Academic Forgiveness and Academic Appeal Policy

Academic Forgiveness and Academic Appeal are two policies that must be completed with the collaboration of an academic/personal counselor and the Office of Enrollment Services. Students must be apprised of the college calendar and official withdrawal dates. Students who seek Forgiveness or a Grade/Academic Appeal for a radiography course may NOT re-enter the program.

Students who choose to withdraw from the program may do so by the *stipulated college deadline* only. However, should the student choose to do so, he/she must reapply for admissions if the student would like to return. Re-application is due by *no later than February 1* of the current year. The applicant will have to *complete the criminal history background check and the Radiography Admissions Examination again with no guarantee of readmission.*

If readmitted into the program, the student will have to retest all technical skills in the laboratory in the presence of the laboratory instructor. The technical skills must be passed before the student may be permitted to attend clinical education courses. The rationale is to assure the maintenance of knowledge, competency and safety.

**** *If a student elects to withdraw for whatever the reason, he or she must reapply. You are not to assume re-entrance. The program does not have unlimited clinical space. Be clear that the program officials reserve this right for there is much concern over withdrawal again. Program attrition (loss of students) and retention (stayed and graduated) are of major concern.*

Program Completion Time

The admitted student MUST complete the program within a maximum of 3 years from the start of the program.

Professionalism Policy

Unprofessional/unacceptable behaviors include:

- Academic or clinical dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the college or clinical site.
- Falsification, forgery, alteration, or misuse of college, instructor, and/or affiliate documents, records, or identification.
- Any disruption of class sessions by use of abusive / obscene language, disorderly, or threatening behavior.
- Insubordination (defined in Webster's Dictionary as "unwilling to submit to authority; disobedient; rebellious").
- Fighting at the clinic site or on college premises.
- Being intoxicated or under the influence of drugs or alcohol while on clinical assignment or college premises. (See drug and Alcohol policy)
- Misuse of clinical affiliate equipment or supplies.
- Sleeping while on duty at a clinical assignment.
- Failure to adhere to any duly established BCC Radiography Program policy or protocol following appropriate counseling.
- Inappropriate communication or breach of confidentiality, HIPAA violations
- Negligence in patient care situations, seriously jeopardizing patient safety

INC Grades

Although this handbook addresses academic issues, clinical performance affects your ability to graduate and be signed off for the registry.
All mandatory competencies must be completed before starting ANY terminals.

All competencies, electives, continuals and terminals must be completed by the end of RAD 290. If they are not completed, the student must sign a contract with the Clinical Coordinator agreeing to the conditions and periods of the contract.

The Clinical Education Coordinator, sets the minimal number of competencies in all categories for each term based on state and ARRT requirements.

ARRT and State License Application

The graduate will be issued an application to the ARRT when the degree is conferred. No sign offs will occur before that point. You need proof of passing the ARRT and the degree for licensure.

Pregnancy Policy Statement

- The disclosure of pregnancy on the behalf of the student is voluntary; however, it must be in writing. Students may withdraw, in writing, the pregnancy disclosure at any time.
- It is strongly recommended that female students disclose their pregnancy status to the Program Director and Clinical Education Coordinator.
- They can obtain the necessary monitoring devices to ensure a safe pregnancy during clinical rotation.
- The radiography program complies with the policy of the New Jersey Radiologic Technology Board of Examiners regarding pregnant students in an accredited training program in New Jersey.
- No pregnant student should receive a radiation dose of more than 0.5 REM(5.0 mSv)/ 9 months gestation or 0.05 REM(0.5 mSv)/ month.
- All students shall wear whole body dosimeters when utilizing radiation-producing machines. This practice must be strictly enforced with respect to pregnant students. The relative risk to the embryo/ fetus should be thoroughly explained to students prior to the actual operation of x-ray machines.
- NRC #8.13 “instruction concerning prenatal exposure” and NCRP # 91 protection of the fetus-embryo is used for reference.
- The NJRTBE recommends that adequate controls and monitoring be instituted to assure that the dose complies with the ALARA principle.
- The radiation safety officer will review the student’s radiation exposure reports to assure compliance with the indicated dose limits.
- The student will be provided the option to continue the BCC Radiography program without modification.
- Provisions shall be made for re-entry into the program, when the student takes a leave of absence.
- All didactic and clinical education requirements as mandated by the program must be completed.
- A student may notify the Program Director of her pregnancy by submitting a completed Pregnancy Declaration Form.
- The student will be provided the option for written withdrawal of the declaration.
- A student’s declaration of pregnancy is voluntary. A physician’s note supporting the student’s chosen option must be presented to the Program Director at the time of declaration.

Pregnancy Declaration Form

Last Name: _____

First Name: _____

Date of the Completion of this form is _____

I have read the policy statements indicated. Before completing this form, I have contemplated and discussed the options posed. I have met with the Program's appointed Radiation Safety Officer and have chosen the following option (sign your name next to your option):

□ to withdraw immediately from the program AND return after conclusion of the pregnancy.

□ to continue with didactic courses and discontinue clinical education until the conclusion of the pregnancy.

□ to request a leave of absence and return in the next appropriate semester in the curriculum.

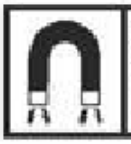
□ to remain in the clinical and didactic portions of the program during the pregnancy until conclusion of the pregnancy.

I understand that I have the right to withdraw this declaration form at any time.
Please initial _____.

_____ _____
Student Signature Date

_____ _____
Appointed Program Radiation Safety Officer Date

MAGNETIC RESONANCE (MR) ENVIRONMENT SCREENING FORM FOR INDIVIDUALS*



The MR system has a very strong magnetic field that may be hazardous to individuals entering the MR environment or MR system room if they have certain metallic, electronic, magnetic, or mechanical implants, devices, or objects. Therefore, all individuals are required to fill out this form BEFORE entering the MR environment or MR system room. Be advised, the MR system magnet is ALWAYS on.

***NOTE: If you are a patient preparing to undergo an MR examination, you are required to fill out a different form.**

Date ____/____/____ (month / day / year) Name _____ (Last Name / First Name / Middle Initial) Age _____

Address _____ Telephone (home) (____) ____-____

City _____ Telephone (work) (____) ____-____

State _____ Zip Code _____

1. Have you had prior surgery or an operation (e.g., arthroscopy, endoscopy, etc.) of any kind? ❒ No ❒ Yes
   If yes, please indicate date and type of surgery: Date ____/____/____ Type of surgery _____
2. Have you had an injury to the eye involving a metallic object (e.g., metallic slivers, foreign body)? ❒ No ❒ Yes
   If yes, please describe: _____
3. Have you ever been injured by a metallic object or foreign body (e.g., BB, bullet, shrapnel, etc.)? ❒ No ❒ Yes
   If yes, please describe: _____
4. Are you pregnant or suspect that you are pregnant? ❒ No ❒ Yes

WARNING: Certain implants, devices, or objects may be hazardous to you in the MR environment or MR system room. Do not enter the MR environment or MR system room if you have any question or concern regarding an implant, device, or object.

Please indicate if you have any of the following:

- ❒ Yes ❒ No Aneurysm clip(s)
- ❒ Yes ❒ No Cardiac pacemaker
- ❒ Yes ❒ No Implanted cardioverter defibrillator (ICD)
- ❒ Yes ❒ No Electronic implant or device
- ❒ Yes ❒ No Magnetically-activated implant or device
- ❒ Yes ❒ No Neurostimulation system
- ❒ Yes ❒ No Spinal cord stimulator
- ❒ Yes ❒ No Cochlear implant or implanted hearing aid
- ❒ Yes ❒ No Insulin or infusion pump
- ❒ Yes ❒ No Implanted drug infusion device
- ❒ Yes ❒ No Any type of prosthesis or implant
- ❒ Yes ❒ No Artificial or prosthetic limb
- ❒ Yes ❒ No Any metallic fragment or foreign body
- ❒ Yes ❒ No Any external or internal metallic object
- ❒ Yes ❒ No Hearing aid
  (Remove before entering the MR system room)
- ❒ Yes ❒ No Other implant _____

IMPORTANT INSTRUCTIONS

Remove all metallic objects before entering the MR environment or MR system room including hearing aids, beeper, cell phone, keys, eyeglasses, hair pins, barrettes, jewelry (including body piercing jewelry), watch, safety pins, paperclips, money clip, credit cards, bank cards, magnetic strip cards, coins, pens, pocket knife, nail clipper, steel-toed boots/shoes, and tools. Loose metallic objects are especially prohibited in the MR system room and MR environment.

Please consult the MRI Technologist or Radiologist if you have any question or concern BEFORE you enter the MR system room.

I attest that the above information is correct to the best of my knowledge. I have read and understand the entire contents of this form and have had the opportunity to ask questions regarding the information on this form.

Signature of Person Completing Form: _____ (Signature) Date ____/____/____

Form Information Reviewed By: _____ (Print name) _____ (Signature)

❒ MRI Technologist ❒ Radiologist ❒ Other _____

Acknowledgement

- ✔ By signing this document, I agree to abide by the terms here stated and published in the policy.

- ✔ Any aspect of the Policy is subject to change. Students will be informed both verbally and electronically.

- ✔ I am also aware that photography by any means for any purpose, utilizing a cell phone, I-pad or camera is prohibited and is a serious infringement of academic integrity. Students are not to take images of any class or lab materials, tests or other persons. Infringements will be reported to the Dean of Health Professions and the Dean of Student Judicial Affairs.

- ✔ Cell phones and electronic devices are NOT to be visible during any assessment (test, quiz, or examination). If the instructor sees a cell phone or other electronic device, utilized during an assessment, that assessment will be collected and the student will forfeit the assessment receiving a zero or F grade.

- ✔ I further acknowledge that if I do not understand any policy, or portion of this document I am free to ask the Program Director and/or the Clinical Education Coordinator.

Please be advised that ALL policies and course requirements may be subject to revision on a semester-to-semester basis. Students will be notified of ANY revisions at the beginning of the semester in which the change is being implemented. This will take place at the first meeting of the semester.

Policies and Regulations Compliance

Print Last Name: _____

Print First Name: _____

Date: _____

I read the handbook and agree to:

____ Comply with all program policies, accreditation benchmarks and state requirements, as is stipulated in this manual.

____ I understand that my failure to comply with the published policies is considered insubordinate.

____ Insubordination can/will lead to permanent dismissal from the program, with NO chance for readmission to the program.

_____ Failure of two radiography courses will lead to permanent dismissal. Reapplication is possible in 3 years.

My signature below validates that I have read and agree to comply with the policies and regulations in this handbook. My signature below does not indicate agreement or disagreement with said policies.

_____

Student's signature

DATE: _____

STUDENT NOTES:

Radiography Program Outline & Curriculum

First Semester			
BIO-109	Anatomy and Physiology 1		4 cr
WRT-101	English Composition 1		3 cr
RAD-180	Introduction to Radiography		2 cr
RAD-181	Radiography 1		4 cr
RAD-182	Radiography Practicum 1		1 cr
		Total Credit Hours:	14
Second Semester			
BIO-209	Anatomy and Physiology 2		4 cr
WRT-201	English Composition 2		3 cr
-	or		
WRT-202	Technical Writing		3 cr
RAD-276	Principles of Imaging Equipment		2 cr
RAD-281	Radiography 2		4 cr
RAD-282	Radiography Practicum 2		2 cr
		Total Credit Hours:	15
Summer Semester			
RAD-280	Principles of Image Production and Acquisition		3 cr
RAD-283	Summer Radiography Practicum		3 cr
		Total Credit Hours:	6
Third Semester			
	Free Elective		3 cr
MAT-150	Statistics 1		3 cr
RAD-183	Radiographic Pathology		1 cr
RAD-285	Radiography 3		3 cr
RAD-286	Radiography Practicum 3		2 cr
		Total Credit Hours:	12
Fourth Semester			
	Humanities Elective		3 cr
	Social Science Elective		3 cr
RAD-288	Radiography 4		3 cr
RAD-289	Radiography Practicum 4		2 cr
		Total Credit Hours:	11
Summer Semester			
RAD-290	Advanced Radiography Practicum		3 cr
		Total Credit Hours:	3

Course Description:

RAD-180 Introduction to Radiography:
In this course, the healthcare system and the radiography profession are studied. Specific topics related to patient care management include communication, medical law, ethical practice, vital signs, basic pharmacology, infection control, transfer techniques, medical equipment and emergencies are addressed.

RAD-181 Radiography 1:
This course introduces the study of radiography. The theory and application of positioning of the chest, abdomen, and upper limb will be explored. Basic principles of radiation protection and radiographic exposure and medical terminology will be reinforced in class and in the laboratory.

RAD-182 Radiography Practicum 1:
This course is designed to introduce the student to the physical layout and operation of a department of radiology. This course requires the performance of some routine examinations under the direct supervision of a registered radiographer and a college clinical instructor. The student rotates throughout three affiliated hospitals during this experience.

RAD-276 Principles of Imaging Equipment:
This course orients the student radiographer to the fundamental principles, operation, and application of radiation-producing imaging equipment used in diagnostic imaging. Topics in this course include atomic structure, radiation, diagnostic x-ray circuit, tomography, image intensification, mobile and automatic exposure control units. Radiation safety and patient care principles are reinforced.

RAD-281 Radiography 2:
This course continues the study of radiographic procedures. The theory and application of positioning of the lower limb, spinal column, and an introduction to the contrast studies will be explored. Principles of positioning techniques, exposure, and critique will be explored in the laboratory.

RAD-282 Radiography Practicum 2:
This course requires students to spend two clinical days a week in a radiology department where students will perform routine as well as some complex examinations under the direct supervision of a registered radiographer and a college clinical instructor. Procedures performed are evaluated on the basis of a competency-based clinical education system.

RAD-280 Principles of Image Production and Acquisition:
This course involves the study of the theoretical and practical aspects of image creation. The photographic, geometric, and imaging systems will be explored. Evaluation of changes caused in the radiographic image with equipment and recording systems, demonstrated, and discussed. Also included in this course are the basic concepts of the origin and effects of ionizing radiation on the patient and radiographic image.

RAD-283 Summer Radiography Practicum:
This course requires students to spend two clinical days a week in a radiology department where students will perform routine as well as some complex examinations under the direct supervision of a registered radiographer and a college clinical instructor. Procedures performed are evaluated on the basis of a competency-based clinical education system.

RAD-183 Radiographic Pathology:
This course is a survey of medical and surgical diseases designed to acquaint the student with changes caused by diseases that have a relation to the scope of medical and imaging diagnostics.

RAD-285 Radiography 3:
This course continues with the study of radiographic procedures, theory, and application of basic skull, advanced skull, an overview of the management and care of trauma, geriatric and pediatric patients. It also includes a study of contrast agents typically utilized and their respective radiographic examinations. This course includes a component of faculty guided independent study of medical terminology.

RAD-286 Radiography Practicum 3:
This course requires the performance of routine, complex, and advanced X-ray procedures under the supervision of a registered radiographer and college clinical instructor in a Radiology Department. Students spend 16 hours a week for 15 weeks meeting the established requirements for competency based clinical education.

RAD-288 Radiography 4:
This course incorporates three major areas of study - radiation protection, computed tomography, and sectional anatomy. There will be an introduction to sectional anatomy. The use of computer software programs will also be used in the laboratory.

RAD-289 Radiography Practicum 4:
This course requires the performance of routine, complex, and advanced X-ray procedures under the supervision of a registered radiographer and a college clinical instructor in a radiology department. Students spend 24 hours per week for 15 weeks meeting the established requirements for competency based clinical education. Rotations into specialty areas and elective rotations are also begun.

RAD-290 Advanced Radiography Practicum:
This course involves the performance of routine, complex and advanced radiographic procedures under the supervision of a registered radiographer and college instructor in the radiography department. The students will spend twelve [12] weeks meeting the established requirements for a competency-based clinical education. The specialty elective rotations will continue. Upon completion of all required radiography core and clinical competency based requirements, the students are eligible to apply to the ARRT for the radiography certification examination.