RT SECTION VI: ACADEMIC EDUCATION

1. CONTACTING ACADEMIC EDUCATORS

During normal program hours, students may contact program officials from any Reading Hospital telephone by dialing the last 4 digits of the office phone numbers listed below. Calls made from non-house telephones require that the 10-digit number be used. All extensions below are serviced by voice mail.

Program Office

- Ms. Cathy James — Program Secretary — (484) 628-**0200**

Program Administration

- Mrs. Kathleen Jackson — Program Director — (484) 628-**0227**

Faculty

- Mrs. Stacy Oskam — Clinical Coordinator — (484) 628-**0235**
- Ms. Lenore McDonnell — Clinical Instructor — (484) 628-**0223**
- Mrs. Heather Herb — Clinical Instructor — (484) 628-**0218**
- Mrs. Maria Messner — Clinical Instructor — (484) 628-**0219**
- Mrs. Christina Wehr — Clinical Instructor — (484) 628-**0222**
- Mrs. Jennifer Mengel — Clinical Instructor — (484) 628-**0217**
- Ms. Laura Loser — Clinical Instructor — (484) 628-**0220**
- Mrs. Debbie Rahn — Faculty & School Director — (484) 628-**0201**

1a. EVENING and WEEKEND CONTACT OF PROGRAM FACULTY

While most issues arising during evening and weekend hours can wait to be addressed on the next business day, there may be occasions when contact with a program faculty member should be made immediately. Injuries involving an enrolled student or patient injury involving an enrolled student are two examples of such occasions.

***1ai. Urgent Issues*:** If it becomes necessary to contact a program official regarding any incident involving a student assigned for evening clinical or supplementary clinical hours, a Radiology Supervisor or supervising technologist should be notified. The Radiology Supervisor or supervising technologist will consult the bulletin board outside of the C-1 Clinical Faculty Office for the purpose of determining the On Call RT Faculty Member. That faculty member will be contacted by the Radiology Supervisor or supervising technologist and apprised of the situation.

1aii. Non-urgent Issues: Students who wish to communicate information to a program official during evening or weekend hours or when the SHS is closed should utilize the phone numbers listed above which are serviced 24/7 by voicemail.

2. COMPUTER LABORATORY

Students are encouraged to use the computer lab located at the SHS as a learning resource. The lab is accessible as posted on the schedule outside the computer lab. The computer lab is not accessible when it is in use for exam administration. An access card (ID badge) is required for entry. Students are expected to adhere to use guidelines posted in the computer laboratory.

Prior to using any computer in the hospital network, students are scheduled to attend instructional classes provided by the SHS Technology Coordinator. Internet and e-mail access are unavailable until these classes are completed.

3. LIBRARY FACILITIES

- **The Reading Hospital and Medical Center Library**, located on E-Ground, is available to the students for reference, research and study purposes. The hospital library maintains reference materials that are less than five years old, although some historical materials are available as well. The hours are as follows:

September through June	July through August
Monday - Thursday - 8:00 am to 9:00 pm	Monday – Friday – 8:00 am to 5:00 pm
Friday - 8:00 am to 5:00 pm	

  Note: All-hour access is available upon individual request. Requests should be made in person to library personnel.

- **The Department of Radiology Library** is available to students for reference materials. These books are located in the main radiology department in the rear section of the physician reading area and can be used at any time.

- **SHS LIBRARY SERVICES (SHS Policy 355) SHS policies are located at: http://www.readinghospital.org/sohs/policies**

4. EVALUATION OF INSTRUCTIONAL STAFF

Students play an important role in improving curriculum design and instructional expertise. Students are asked to complete a "Course & Instructor Evaluation Form" upon the completion of each course.

- Evaluations are distributed by the Program Secretary upon completion of each course.
- Completed evaluations should be submitted to the Program Secretary for summarization.
- Copies of the summary are submitted to the Director.
- The Director distributes copies of the summary to the appropriate faculty.
- Faculty signs the summary indicating their receipt and review. At this time, actionable items are identified and the faculty designs an action plan for course revisions.
- Action plans are submitted to the Program Director for review. As necessary, discussion takes place regarding modifications to the proposed action plan.
- A copy of the finalized action plan is kept on file in the program office.

5. CORRELATION OF ACADEMIC and CLINICAL EDUCATION

The concepts introduced in the classroom setting are reinforced through scheduled clinical experiences. For the student's benefit, the following chart illustrates how the clinical component corresponds to classroom instruction.

Academic – Clinical Correlation

Level 1 - Fall Semester **Clinical Area/Room Assignments** General Rad Room 3 - Chest Room General Radiographic Room 2 General Radiographic Room 4 Fluoroscopic Suite Doctor's Office Building Emergency Department TRH Imaging Center at Spring Ridge TRH Imaging Center at Exeter	**Academic Courses** Orientation (Introduction to clinical areas) Fundamentals of Radiologic Science and Health Care Medical Terminology Patient Care Image Production and Evaluation I Radiation Protection Radiographic Procedures I Positioning Terminology and Principles Thoracic Radiography Upper Extremity Radiography Mobile Radiography Surgical Radiography Image Evaluation
Level I – Spring Semester **Clinical Area/Room Assignments** General Rad Room 3 – Chest Room General Radiographic Room 2 Fluoroscopic Suite Doctor's Office Building Bone Density Emergency Department Portable Radiography Surgical Radiography On-Site Consultant/PACS QC TRH Imaging Center at Spring Ridge TRH Imaging Center at Exeter Radiation Oncology Nurses General Radiographic Room 4 Skills Lab	**Academic Courses** Image Production and Evaluation II Radiographic Pharmacology & Drug Administration Radiation Production & Characteristics I (Physics I) Radiographic Processing Radiographic Procedures II Lower Extremity Thoracic Radiography (cont'd) Pelvic Radiography Abdominal Radiography Image Evaluation

Level I – Summer Session **Clinical Area/Room Assignments** General Rad Room 3 – Chest Room General Radiographic Room 2 Fluoroscopic Suite Doctor's Office Building Bone Density Emergency Department Portable Radiography Surgical Radiography On-Site Consultant/PACS QC TRH Imaging Center at Spring Ridge TRH Imaging Center at Exeter Radiation Oncology Nurses Skills Lab General Radiographic Room 4	**Academic Courses** Human Diversity I Radiation Production & Characteristics II (Physics II) Ethics and Law in the Radiologic Sciences Radiographic Procedures III Fluoroscopic Radiography Spinal Radiography Trauma Radiography I Image Evaluation
Level II – Fall Semester **Clinical Area/Room Assignments** General Radiographic Room 2 General Radiographic Room 4 Fluoroscopic Suite Doctor's Office Building Emergency Department Portable Radiography Surgical Radiography TRH Imaging Center at Spring Ridge TRH Imaging Center at Exeter General Rad Room 3 – Chest Room Radiologist Assistants Radiology Managers / On-Site Consultant/PACS QC/Lab Computed Tomography Magnetic Resonance Imaging Advanced Imaging Modalities	**Academic Courses** Orientation II (Introduction to clinical areas) Radiation Biology Cross Sectional Anatomy Basic Principles of Computed Tomography Human Diversity II Radiographic Procedures IV Head and Neck Radiography Trauma Radiography II Image Evaluation

Level II – Spring Semester Clinical Area/Room Assignments	Academic Courses
	Radiographic Pathology
TRH Imaging Center at Spring Ridge	Imaging Equipment
TRH Imaging Center at Exeter	
General Radiographic Room 2	Digital Image Acquisition and Display
General Radiographic Room 4	
Fluoroscopic Suite	Image Analysis (Capstone Independent Study)
Doctor's Office Building	Advanced Imaging & Quality Improvement (Physics III)
Emergency Department	Radiographic Procedures V
Portable Radiography	Head and Neck Radiography (cont'd)
Surgical Radiography	Special Studies Radiography
General Rad Room 3 – Chest Room	Mammography
Radiology Managers / On-Site Consultant/PACS QC/Lab	Image Evaluation
Radiologist Assistants	
Computed Tomography	
Magnetic Resonance Imaging	
Advanced Imaging Modalities	

Level II - Summer Semester Clinical Area/Room Assignments	
TRH Imaging Center at Spring Ridge	
TRH Imaging Center at Exeter	
General Radiographic Room 2	
General Radiographic Room 4	
Fluoroscopic Suite	
Doctor's Office Building	
Emergency Department	
Portable Radiography	
Surgical Radiography	
General Rad Room 3 – Chest Room	
Radiology Managers / On-Site Consultant/PACS QC/Lab	
Advanced Imaging Modalities	

6. COURSE DESCRIPTIONS

RT 101 - Fundamentals of Radiologic Science and Health Care - This course provides a broad, general introduction to the foundations in radiography and the radiography practitioner's role in the health care delivery system. Principles, practices and policies of the health care organization(s) will be examined, in addition to the professional responsibilities of the radiographer. Students will be oriented to the administrative structure of the Radiology Department and to professional organizations significant to radiology. (Level I; Fall Semester; 16 Theory Hours)

RT 102 - Radiation Protection - This course is designed to present an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Devices used for protection will be presented. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. (Level I; Fall Semester 16 Theory Hours)

RT 103 - Medical Terminology - This course provides theory and application to the elements of medical terminology. A word-building system will be introduced, and abbreviations and symbols will be discussed. Also introduced will be an orientation to the understanding of radiographic orders and interpretation of diagnostic reports. Related terminology is addressed. (Level I; Fall Semester; 22 Theory Hours)

RT 104 - Patient Care - This course addresses the basic concepts of patient care, and underscores the physical and emotional needs of the patient and family. Routine and emergency patient care procedures will be described, as well as infection control procedures utilizing standard precautions. The role of the radiographer in patient education will be identified. (Level I, Fall Semester; 48 Theory Hours)

RT 106 - Image Production and Evaluation I - This course provides the student with background and instruction in the theory of x-ray technique and its application in radiography. It will provide knowledge fundamental for utilization of radiographic imaging equipment in relation to the concepts of radiographic density, contrast, latitude, detail and distortion. (Mathematics involved) (Level I, Fall Semester; 42 Theory Hours).

RT 107 - Radiographic Procedures I- This course is designed to provide the fundamentals necessary to perform standard radiographic procedures. The skills necessary to adapt studies to specific patient needs will also be introduced. Demonstration of optimal diagnostic quality; radiographic image evaluation; and recommendation for improvement of image quality are included. Laboratory experience and clinical experience will be used to complement the classroom portion of this course. (Level I; Fall Semester; 67 Theory Hours; 13 Clinical Hours: Skills Laboratory)

- Positioning Terminology and Principles
- Thoracic Radiography
- Upper Extremity Radiography
- Mobile Radiography
- Surgical Radiography
- Image Evaluation

RT 108 - Radiographic Processing - This course is designed to provide the student with a working knowledge of automatic processing and electronic imaging. Darkroom facilities, computed radiography processors, film, cassettes, intensifying screens, artifacts, and silver recovery are discussed. Class demonstrations/labs are used to demonstrate application of theory. (Level I, Spring Semester; 32 Theory Hours)

RT 109 - Radiation Production and Characteristics I (Physics I) - This course is designed to establish knowledge of atomic structure and terminology. Characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter are addressed. Emphasis will be placed on fundamentals of mathematics, general theories of physics, and basic electronics involved in radiography. (Mathematics involved) (Level I, Spring Semester; 48 Theory Hours)

RT 111 - Image Production and Evaluation II - A continuation of Image Production and Evaluation I, this course is designed to increase the student's knowledge base of factors that govern and influence the production and recording of radiographic images. Emphasis is placed on ideal technique formulation and selection, troubleshooting, and error correction. (Mathematics Involved) (Level I, Spring Semester; 40 Theory Hours)

RT 112 - Radiographic Procedures II- This course continues to provide the fundamentals necessary to perform standard radiographic procedures. The skills necessary to adapt studies to specific patient needs will also be introduced. Demonstration of optimal diagnostic quality; radiographic image evaluation; and recommendation for improvement of image quality are included. Laboratory experience and clinical experience will be used to complement the classroom portion of this course. (Level I, Spring Semester; 56 Theory Hours; 11 Clinical Hours: Skills Laboratory)

- Lower Extremity Radiography)
- Thoracic Radiography (cont'd)
- Pelvic Radiography
- Abdominal Radiography
- Image Evaluation

RT 113 - Ethics and Law in the Radiologic Sciences - This course will provide a general background in ethics, with discussions to include the historical and philosophical basis of ethics. The elements of ethical behavior will be discussed. An introduction to legal terminology, concepts and principles will be presented. Topics include misconduct, malpractice, legal and professional standards and the ASRT Practice Standards. The importance of proper documentation and informed consent will be emphasized. Emphasis will also be placed on ethical issues and dilemmas found in clinical practice. (Level I, Summer Semester; 32 Theory Hours)

RT 114 - Human Diversity I- Content is designed to promote better understanding of patients, patient's families and professional peers through comparison of diverse populations based on their value system, cultural and ethnic influences, communication styles, socioeconomic influences, health risks and life stages. Emphasis is place on age specific needs of the patient. Content will include the study of factors that influence relationships with patients and professional peers. (Level I, Summer Semester; 16 Theory Hours)

RT 115 - Radiation Production and Characteristics I (Physics II) - A continuation of Physics I, this course will provide the student with additional fundamentals of mathematics, general theories of radiologic physics, and basic electronics involved in radiography. (Mathematics involved) (Level I, Summer Semester; 32 Theory Hours)

RT 116 - Pharmacology and Drug Administration - This course introduces the student to various substances used in radiography to enhance the body's anatomical contrast and provides the basic concepts of pharmacology. Included are the theory and practice of basic techniques of venipuncture and the administration of diagnostic contrast agents and intravenous medications. Emphasis is placed on appropriate delivery of patient care during these procedures. (Level I, Spring Semester; 21 Theory Hours)

RT 117 - Radiographic Procedures III - This course is designed to continue the fundamentals necessary to perform standard radiographic procedures. The skills necessary to adapt studies to specific patient needs will also be introduced. Demonstration of optimal diagnostic quality, radiographic image evaluation and recommendation for improvement of image quality are included. Laboratory and clinical experience will be used to complement the classroom portion of these courses. (Level I, Summer Semester; 30 Theory Hours; 15 Clinical Hours: Skills Laboratory)

- Fluoroscopic Radiography
- Trauma Radiography I
- Spinal Radiography
- Image Evaluation

RT 201 - Radiographic Pathology – This course is designed to introduce terminology, theories of disease, causation and the pathophysiologic disorders that compromise healthy systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance and management of alterations in body systems will be presented. Emphasis is placed on understanding the course of disease to provide students with the knowledge necessary to make modifications in positioning and exposure, resulting in the best possible diagnostic image. (Level II, Spring Semester; 48 Theory Hours)

RT 202 - Radiation Biology- This course is designed to provide an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response, including acute and chronic effects of radiation, are presented. (Level II, Fall Semester; 42 Theory Hours)

RT 204 - Imaging Equipment - This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. The content will also introduce the fundamentals of radiographic quality control testing. Electronic imaging with related accessories will be emphasized. Class demonstrations will be used to illustrate application of theory. (Level II, Spring Semester; 32 Theory Hours)

RT 206 - Radiographic Procedures IV – This course is designed to continue the fundamentals necessary to perform standard radiographic procedures. The skills necessary to adapt studies to specific patient needs will also be introduced. Demonstration of optimal diagnostic quality, radiographic image evaluation and recommendation for improvement of image quality are included. Laboratory and clinical experience will be used to complement the classroom portion of these courses. (Level II, Fall Semester; 36 Theory Hours; 8 Clinical Hours: Skills Laboratory)

- Head and Neck Radiography
- Trauma Radiography II
- Image Evaluation

RT 207 - Human Diversity II – A continuation of Human Diversity I, this course provides a deeper understanding of patients, patient's families, and professional peers. Further comparison of diverse populations will be made based on their value system, cultural and ethnic influences, communication styles, socioeconomic influences, health risks and life stages. (Level II, Fall Semester; 16 Theory Hours)

RT 208 - Digital Image Acquisition and Display – This course is designed to impart an understanding of the components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors that impact image, image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems. Principles of digital system quality assurance and maintenance are presented. (Level II, Spring Semester; 48 Theory Hours)

RT 209 - Image Analysis – *Capstone Independent Study* – Content is designed to provide a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation, and the factors that can affect image quality. Actual images will be included for analysis. (Level II, Spring Semester; 28 Theory Hours)

RT 210 - Basic Principles of Computed Tomography – This course is designed to provide entry-level radiography students with principles related to computed tomographic imaging. (Level II, Fall Semester; 16 Theory Hours)

RT 211 - Cross Sectional Anatomy – This course is designed to establish a knowledge base in cross-sectional anatomy utilizing images obtained via computed tomography, ultrasound, magnetic resource imaging, and nuclear medicine. (Level II, Fall Semester; 48 Theory Hours)

RT 212 - Physics III: Advanced Imaging & Quality Improvement - This course provides a broad exploration of the radiation physics principles of advanced imaging modalities. Instruction on quality improvement principles and quality control techniques related to radiologic technology are also included. (Level II, Spring Semester; 22 Theory Hours)

RT 213 - Radiographic Procedures V – This course is designed to complete the fundamentals necessary to perform standard radiographic procedures. The skills necessary to adapt studies to specific patient needs will also be introduced. Demonstration of optimal diagnostic quality, radiographic image evaluation, and recommendation for improvement of image quality are included. Laboratory and clinical experience will be used to complement the classroom portion of these courses. (Level II, Spring Semester; 30 Theory Hours; 15 Clinical Hours: Skills Laboratory)

- Head and Neck Radiography (cont'd)
- Special Studies Radiography
- Mammography
- Film Evaluation

Clinical Practice I (RT Clinical 101), II (RT Clinical 102), III (RT Clinical 103), IV(RT Clinical 201), V (RT Clinical 202), VI (RT Clinical 203) - Content and clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in the clinical setting, concepts of team practice, patient centered clinical practice and professional development are discussed, examined and evaluated. (Level I: 512 Clinical hours; Level II: 984 Clinical hours)

Revised 7/03; 9/04; 7/06; 6/07; 8/07; 8/08; 8/10; 8/11; 8/12

7. 2012-2013 COURSE TEXTBOOKS

Textbooks are included in course tuition. All required and loaned textbooks are ordered by the program and distributed to students on the first day of class.

Prices reflect retail cost from Barnes and Noble unless otherwise noted

Required textbooks

1. Introduction to Radiographic Sciences and Patient Care
   Fifth Edition
   Adler and Carlton ISBN# 9781437716467
   Retail cost: $60.31

2. Delmar's Comprehensive Medical Terminology
   Fourth Edition
   Jones ISBN# 9781435439870
   Retail cost: $74.76

3. Radiologic Science for Technologists
   Tenth Edition
   Bushong ISBN# 9780323081351
   Retail cost: $93.50

4. Principles of Radiographic Imaging - An Art and A Science
   Fifth Edition
   Carlton and Adler ISBN# 9781439058725
   Retail cost: $152.96

5. Merrill's Atlas of Radiographic Positioning: 3 Volume Set
   Twelfth Edition
   Frank, Long and Smith ISBN# 9780323073349
   Retail cost: $219.30

6. Merrill's Pocket Guide to Radiography
   Twelfth Edition
   Frank, Long and Smith ISBN# 9780323073325
   Retail cost: $33.96

7. Workbook for Merrill's Atlas of Radiographic Positioning and Procedures: 2-Volume Set
   Twelfth Edition
   Frank, Long, Smith and Rollins ISBN# 9780323073240
   Retail cost: $85.00

8. Radiographic Image Analysis
   Third Edition
   Martensen ISBN# 9781437703368
   Retail cost: $76.46

9. Digital Radiography and PACS
   First Edition
   Carter ISBN# 9780323044448
   Retail cost: $48.41

10. Introduction to Sectional Anatomy Workbook and Board Review Guide
    Second Edition
    Madden ISBN# 9780781769761
    Retail cost: $36.51

<u>Loaned from RT Program; textbooks returned at course completion</u>

1. Introduction to Sectional Anatomy
   Second Edition
   Madden ISBN# 9780781763424
   Retail cost: $78.16

2. Comprehensive Radiographic Pathology for Technologists
   Fifth Edition
   Eisenberg and Johnson ISBN# 9780323078478
   Retail cost: $82.95

Optional but recommended textbooks

1. Radiation Protection in Medical Radiography
   Sixth Edition
   Sherer, Visconit and Ritenour ISBN #9780323066112
   Retail cost: $52.36

2. Practical Radiographic Imaging
   Eighth Edition
   Carroll ISBN# 9780398077053
   Retail cost: $64.18

3. Radiographic Imaging and Exposure
   Third Edition
   Fauber ISBN# 9780323047272
   Retail cost: $58.95

4. Ethical and Legal Issues For Imaging Professionals
   Second Edition
   Towsley-Cook, Young ISBN# 9780323045995
   Retail cost: $42.30

8. ACADEMIC COURSE SEQUENCE

Pre-Orientation (prior to admission)

- Hospital ID Badges
- Library Orientation
- Dress Code and Uniform Policy Review
- Welcome Luncheon with Student Mentors, Program Faculty and Staff
- Tour of TRHMC Facilities

Level I – Fall Semester (August - December)

- Orientation
  - Student Handbook
  - Orientation to TRHMC Clinical Environment (Fire Safety, Right to Know, OSHA, Emergency Preparedness, Infection Control, HIPAA, Healthy Boundaries)
  - Basic Radiation Protection
  - Introduction to Advanced Interventional Radiology
  - Introduction to Bone Density
  - Introduction to Cardiac Catheterization Lab
  - Introduction to Computed Tomography
  - Introduction to the Doctor's Office Building
  - Introduction to the Emergency Department
  - Introduction to Exeter Imaging Center and Berkshire Heights Imaging Center (pending)
  - Introduction to Fluoroscopy
  - Introduction to Head and Neck Suite

    - Introduction to Magnetic Resonance Imaging
    - Introduction to Mobile Radiography
    - Introduction to Nuclear Medicine
    - Introduction to PACS
    - Introduction to Radiation Oncology
    - Introduction to Rooms 2&3 Rapid Radiographic Suite
    - Introduction to TRHMC at Spring Ridge
    - Introduction to Surgical Radiography
    - Introduction to Ultrasound
    - Introduction to the Women's Center
- Fundamentals of Radiologic Science and Health Care
- Medical Terminology
- Patient Care
- Image Production and Evaluation I
- Radiation Protection
- Radiographic Procedures I
    - Positioning Terminology and Principles
    - Thoracic Radiography
    - Upper Extremity Radiography
    - Competency Testing Orientation
    - Mobile Radiography
    - Surgical Radiography
    - Image Evaluation

Level I – Spring Semester (January - April)

- Image Production and Evaluation II
- Radiographic Pharmacology and Drug Administration
- Radiographic Processing
- Radiation Production and Characteristics I (Physics I)
- Radiographic Procedures II
    - Lower Extremity
    - Thoracic Radiography (cont.)
    - Pelvic Radiography
    - Abdominal Radiography
    - Image Evaluation

Level I – Summer Semester (May - July)

- Human Diversity I
- Ethics and Law in the Radiologic Sciences
- Radiation Production and Characteristics I (Physics II)
- Radiographic Procedures III
    - Fluoroscopic Radiography
    - Trauma Radiography I
    - Spinal Radiography
    - Image Evaluation

Level II – Fall Semester (August - December)

- Orientation II
  - Student Handbook
  - Orientation to TRHMC Clinical Environment (Fire Safety, Right to Know, OSHA, Emergency Preparedness, Infection Control, HIPAA, Healthy Boundaries; Culture of Excellence)
  - Basic Radiation Protection
  - Introduction to Advanced Interventional Radiology
  - Introduction to Bone Density
  - Introduction to Cardiac Catheterization Lab
  - Introduction to Computed Tomography
  - Introduction to the Doctor's Office Building
  - Introduction to the Emergency Department
  - Introduction to Exeter Imaging Center and Berkshire Heights Imaging Center (pending)
  - Introduction to Fluoroscopy
  - Introduction to Head and Neck Suite
  - Introduction to Magnetic Resonance Imaging
  - Introduction to Mobile Radiography
  - Introduction to Nuclear Medicine
  - Introduction to PACS
  - Introduction to Radiation Oncology
  - Introduction to Rooms 2&3 Rapid Radiographic Suite
  - Introduction to TRHMC at Spring Ridge
  - Introduction to Surgical Radiography
  - Introduction to Ultrasound
  - Introduction to the Women's Center
- Radiation Biology
- Basic Principles of Computed Tomography
- Cross Sectional Anatomy
- Human Diversity II
- Radiographic Procedures IV
  - Head and Neck Radiography
  - Trauma Radiography II
  - Interventional Radiography
  - Image Evaluation

Level II – Spring Semester (January - April)

- Radiographic Pathology
- Imaging Equipment
- Digital Image Acquisition and Display
- Image Analysis (Capstone Independent Study)
- Advanced Imaging and Quality Improvement: Physics III
- Radiographic Procedures V
  - Head and Neck Radiography (cont’d)
  - Special Studies Radiography

- Mammography
- Image Evaluation

Level II – Summer Semester (May – July)

- Clinical Experience

9. 2012-2013 FACULTY AND COURSES

Basic Principles of Computed Tomography	Jennifer Mengel, BS, RT (R) (MR) *Clinical/Academic Instructor*
Cross Sectional Anatomy	Jennifer Mengel, BS, RT (R) (MR) *Clinical/Academic Instructor*
Digital Image Acquisition and Display	Laura Loser, BS, RT(R) *Clinical/Academic Instructor*
Ethics and Law in Radiologic Science	Jennifer Mengel, BS, RT (R) (MR) *Clinical/Academic Instructor*
Fundamentals of Radiologic Science and Health Care	Maria C. Messner, BS, RT(R) (M) *Clinical/Academic Instructor*
Human Diversity I & II	Laura Loser, BS, RT(R) *Clinical/Academic Instructor*
Image Analysis	Lenore R. McDonnell, BS, RT(R) *Clinical/Academic Instructor*
Image Production and Evaluation I & II	Lenore R. McDonnell, BS, RT(R) *Clinical /Academic Instructor*
Imaging Equipment	Maria C. Messner, BS, RT(R) (M) *Clinical/Academic Instructor*
Introduction to Advanced Interventional Radiology	Crystal Heiser, BS, RT(R) *Diagnostic Technologist, Interventional Radiology*
Introduction to Berkshire Heights Imaging Center (pending)	Andrea Ebling, RT (R) *Staff Technologist, Clinical Preceptor*
Introduction to Bone Density	Denise Rohrbach, CDT *Certified Densitometry Technologist*
Introduction to the Cardiac Catheterization Lab	Joshua Kemp, RT(R) *Cardiac Cath Lab Technologist*

Introduction to Computed Tomography	Jenny Follweiler, BS, RT (R) (CT) *CT Supervisor; Computed Tomography* Lee Muir, RT (R) (CT) *CT Coordinator; Computed Tomography*
Introduction to the Doctor's Office Bldg	Heidi Millisock, BS, RT(R) *Staff Technologist, Clinical Preceptor*
Introduction to Emergency Department	Stephanie Gilbert, BS, RT(R) (M) *Clinical Supervisor; Emergency Department Quality Management Supervisor*
Introduction to Exeter Imaging Center	Amy Ferster, RT(R) *Staff Technologist, Clinical Preceptor*
Introduction to Fluoroscopy	Janelle Kauffman, RT (R) *Lead Technologist; Fluoroscopy*
Introduction to Room 4	Stephanie Gilbert, BS, RT(R) (M) *Clinical Supervisor; Emergency Department Quality Management Supervisor*
Introduction to Magnetic Resonance Imaging	Cheryl Frederick, BS, RT(R) (MR) *Clinical Supervisor; Magnetic Resonance Imaging*
Introduction to Mobile Radiography	Dana Kroeck, RT (R) *Lead Technologist; Mobile/Surgical*
Introduction to Nuclear Medicine	Beth Kehrli, CNMT, RT(N) *Diagnostic Technologist, Nuclear Medicine*
Introduction to PACS Administration	Shawn Hedrick, RT(R) Jen Stone, BS, RT(R)(CT) *PACS Analysts*
Introduction to Radiation Oncology	William Harvey, BS, RT(R) (RTT) *Radiation Therapist; Radiation Oncology* Melissa Reinard, RN *Registered Nurse; Radiation Oncology*
Introduction to Rooms 2&3 Rapid Radiographic Suite	Stephanie Gilbert, BS, RT(R) (M) *Clinical Supervisor; Emergency Department Quality Management Supervisor*

Introduction to Radiologist Assistants	Sharon Brunner, BS, RT(R) Tina Horbach, BS, RT(R) *Radiologists Assistants; WRRA*
Introduction to TRHMC at Spring Ridge	Michelle Eisenhut, RT(R) Heidi Millisock, BS, RT(R) *Staff Technologists; Clinical Preceptors*
Introduction to Surgical Radiography	Dana Kroeck, RT (R) *Lead Technologist; Mobile/Surgical*
Introduction to Ultrasound	Gina Sensenig, RDMS *Sonographer*
Introduction to the Women's Center	Michelle Baum, RT(R) (M) *Chief Tech – Mammography/Radiology Breast Imaging Coordinator*
Medical Terminology	Heather L. Herb, AS, RT(R) (M) *Clinical/Academic Instructor*
Patient Care	Debbie J. Rahn, EdD (candidate), MSN, RN, FABC *Director; School of Health Sciences* Kathleen R. Jackson, MS, RT(R) *Program Director*
Radiation Production & Characteristics I & II (Physics I & II)	Stacy L. Oskam, MS, RT(R) *Clinical Coordinator;* *Clinical/Academic Instructor*
Advanced Imaging and Quality Improvement: Physics III	Jennifer Mengel, BS, RT (R) (MR) Maria C. Messner, BS, RT(R) (M) *Clinical/Academic Instructors*
Radiation Biology	Maria C. Messner, BS, RT(R) (M) *Clinical/Academic Instructor*
Radiation Protection	Heather L. Herb, AS, RT(R) (M) *Clinical/Academic Instructor*
Radiographic Pathology	Christina N. Wehr, BS, RT(R) *Clinical/Academic Instructor*
Radiographic Pharmacology and Drug Administration	Maria C. Messner, BS, RT(R) (M) *Clinical/Academic Instructor*

Radiographic Procedures	Stacy L. Oskam, MS, RT (R) *Clinical Coordinator;* *Clinical/Academic Instructor* Jennifer Mengel, BS, RT (R) (MR) Laura Loser, BS, RT (R) Lenore R. McDonnell, BS, RT(R) Heather L. Herb, AS, RT(R) (M) Maria C. Messner, BS, RT(R) (M) Christina N. Wehr, BS, RT(R) *Clinical/Academic Instructors* Michele Baum, RT(R) (M) *Chief Tech – Mammography/Radiology Breast Imaging Coordinator*
Radiographic Processing	Christina N. Wehr, BS, RT(R) *Clinical/Academic Instructor*

10. COURSE/TEXTBOOK CORRELATION

Course: Basic Principles of Computed Tomography
Instructor: Mrs. Jennifer Mengel, BS, RT (R) (MR)
Text(s) Utilized:

- Radiologic Science for Technologists
  Tenth Edition
  Bushong
- Principles of Radiographic Imaging -- An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: Cross Sectional Anatomy
Instructor: Mrs. Jennifer Mengel, BS, RT (R) (MR)
Text(s) Utilized:

- Introduction to Sectional Anatomy
  Second Edition
  Madden (loaned from program)
- Introduction to Sectional Anatomy Workbook and Board Review Guide
  Second Edition
  Madden (loaned from program)

Course: Digital Image Acquisition and Display
Instructors: Ms. Laura Loser, BS, RT (R)
Text(s) Utilized:

- **Digital Radiography and PACS**
  Revised Edition
  Carter
- Principles of Radiographic Imaging - An Art and a Science

Fifth Edition
Carlton and Adler

- Radiologic Science for Technologists
  Tenth Edition
  Bushong

Course: **Ethics and Law in Radiologic Sciences**
Instructor: **Mrs. Jennifer Mengel, BS, RT (R) (MR)**
Text(s) Utilized:

- Introduction to Radiographic Sciences and Patient Care
  Fifth Edition
  Adler & Carlton

Course: **Fundamentals of Radiologic Science and Health Care**
Instructor: **Mrs. Maria C. Messner, BS, RT (R) (M)**
Text(s) Utilized:

- Introduction to Radiographic Sciences and Patient Care
  Fifth Edition
  Adler & Carlton

Course: **Human Diversity I & II**
Instructor: **Ms. Laura Loser, BS, RT (R)**
Text(s) Utilized:

- Merrill's Atlas of Radiographic Positioning
  Twelfth Edition
  Frank, Long and Smith

Course: **Image Analysis**
Instructor: **Ms. Lenore R. McDonnell, BS, RT (R)**
Text(s) Utilized:

- Radiographic Image Analysis
  Third Edition
  Martensen
- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: **Image Production and Evaluation I & II**
Instructor: **Ms. Lenore R. McDonnell, BS, RT (R)**
Text(s) Utilized:

- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: **Imaging Equipment**
Instructor: **Mrs. Maria C. Messner, BS, RT (R) (M)**

Text(s) Utilized:

- Radiologic Science for Technologists
  Tenth Edition
  Bushong
- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: **Medical Terminology**
Instructor: **Mrs. Heather L. Herb, AS, RT (R) (M)**
Text(s) Utilized:

- Delmar's Comprehensive Medical Terminology
  Fourth Edition
  Jones

Course: **Patient Care**
Instructor: **Mrs. Debbie J. Rahn, EdD (candidate), MSN, RN, FABC**
Mrs. Kathleen Jackson, MS, RT(R)
Text(s) Utilized:

- Introduction to Radiologic Sciences and Patient Care
  Fifth Edition
  Adler and Carlton

Course: **Advanced Imaging and Quality Improvement (Physics III)**
Instructors: **Mrs. Jennifer Mengel, BS, RT (R) (MR)**
Mrs. Maria Messner, BS, RT (R) (M)
Text(s) Utilized:

- Radiologic Science for Technologists
  Tenth Edition
  Bushong
- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: **Radiation Production & Characteristics I & II (Physics I & II)**
Instructor: **Mrs. Stacy L. Oskam, MS, RT (R)**
Text(s) Utilized:

- Radiologic Science for Technologists
  Tenth Edition
  Bushong
- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

Course: **Radiation Biology**
Instructor: **Mrs. Maria C. Messner, BS, RT(R) (M)**

Text(s) Utilized:

- Radiographic Science for Technologists
  Tenth Edition
  Bushong

Course: **Radiation Protection**
Instructor: **Mrs. Heather L. Herb, AS, RT (R) (M)**
Text(s) Utilized:

- Radiographic Science for Technologists
  Tenth
- Principles of Radiographic Imaging – An Art and A Science
  Fifth Edition
  Carlton and Adler
- Radiation Protection in Medical Radiography
  Sixth Edition
  Sherer, Visoncti and Ritenour (optional)

Course: **Radiographic Pathology**
Instructor: **Mrs. Christina N. Wehr, BS, RT(R)**
Text(s) Utilized:

- Comprehensive Radiographic Pathology for Technologists
  Fifth Edition
  Eisenburg and Johnson (loaned from program)

Course: **Radiographic Pharmacology and Drug Administration**
Instructor: **Mrs. Maria C. Messner, BS, RT (R) (M)**
Text(s) Utilized:

- Introduction to Radiologic Sciences and Patient Care
  Third Edition
  Adler & Carlton

Course: **Radiographic Procedures I, II, III, IV, V**
Instructors: **Mrs. Michele Baum, RT (R) (M)**
Mrs. Heather L. Herb, AS, RT (R) (M)
Ms. Laura Loser, BS, RT (R)
Mrs. Jennifer Mengel, BS, RT (R) (MR)
Ms Lenore R. McDonnell, BS, RT (R)
Mrs. Maria C. Messner, BS,RT (R) (M)
Mrs. Stacy L. Oskam, MS, R.T.(R)
Mrs. Christina N. Wehr, BS, RT(R)

Text(s) Utilized:

- Merril's Atlas of Radiographic Positions
  Twelfth Edition
  Frank, Long and Smith
- Workbook for Merrill's Atlas of Radiographic Positioning and Procedures

Twelfth Edition
Frank, Long, Smith and Rollins

Course: **Radiographic Processing**
Instructor: **Mrs. Christina N. Wehr, BS, RT (R)**
Text(s) Utilized:

- Radiologic Science for Technologists
  Tenth Edition
  Bushong
- Principles of Radiographic Imaging - An Art and a Science
  Fifth Edition
  Carlton and Adler

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