

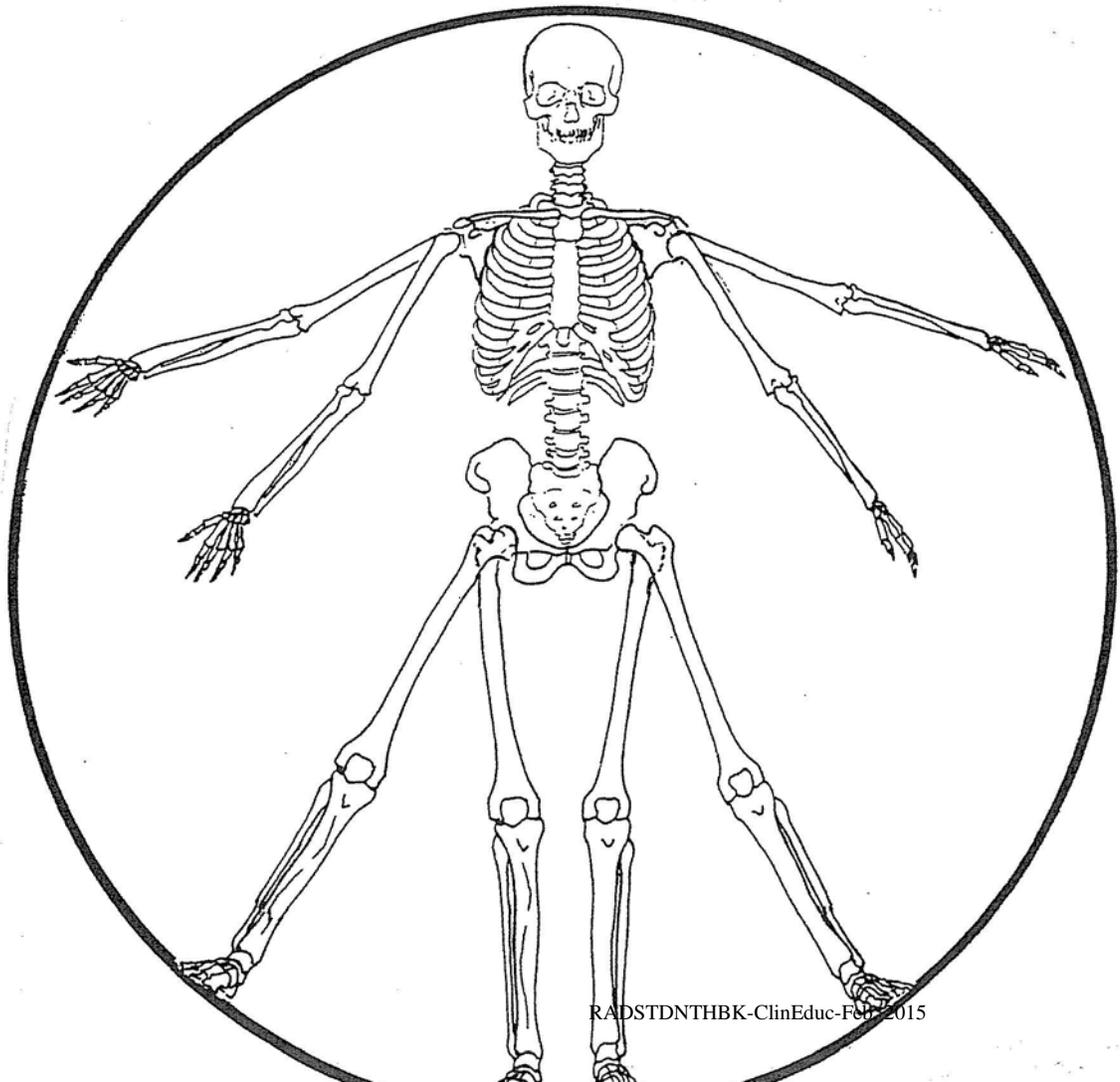
**SOUTHERN ILLINOIS UNIVERSITY
CARBONDALE**

RADIOLOGIC SCIENCES PROGRAM

STUDENT HANDBOOK

OF

GENERAL CLINICAL POLICIES



**SOUTHERN ILLINOIS UNIVERSITY
CARBONDALE**

**DIAGNOSTIC RADIOGRAPHY
CLINICAL EDUCATION
AND
EVALUATION SYSTEM**

**RAD 222 CLINIC I
&
RAD 332 CLINIC II**

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Radiography Clinical Education Manual

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DESCRIPTION OF THE PROFESSION¹

The profession of radiography (Radiologic Sciences) requires the ability to provide appropriate healthcare services. Radiographers are highly skilled professionals qualified by education to perform imaging examinations and accompanying responsibilities at the request of physicians qualified to prescribe and/or perform radiologic procedures.

The radiographer is able to:

1. Apply knowledge of anatomy, physiology, positioning and radiographic techniques to accurately demonstrate anatomical structures on a radiograph or other imaging receptor.
2. Determine exposure factors to achieve optimum radiographic techniques with minimum radiation exposure to the patient.
3. Evaluate radiographic images for appropriate positioning and image quality.
4. Apply the principles of radiation protection to the patient, self, and others.
5. Provide patient care and comfort.
6. Recognize emergency patient conditions and initiate lifesaving first aid and basic life-support procedures.
7. Detect equipment malfunctions, report same to the proper authority and know the safe limits of equipment operation.
8. Exercise independent judgment and discretion in the technical performance of medical imaging procedures.
9. Participate in radiographic quality assurance programs.
10. Provide patient/public education related to radiographic procedures and radiation protection/safety.

American Registry of Radiologic Technologists

Graduates of accredited programs are eligible for registration by examination sponsored by the American Registry of Radiologic Technologists upon completion of the Associate Degree and clinical requirements of the program. The successful passing of the A.R.R.T. examination allows the graduate to place the initials R.T. (R) (ARRT) after his/her name.

"Candidates must be of good moral character. Generally, the conviction of either (1) felony, or (2) any offense, misdemeanor or felony involving moral turpitude, indicates a lack of good moral character for Registry purposes. Those who have been convicted of a crime may be

¹"Essentials and Guidelines of an Accredited Educational Program for the Radiographer," The Joint Review Committee on Education in Radiologic Sciences. (1994). Page 1.

eligible for registration if they have served their entire sentence, including probation and parole, and have had their civil rights restored," (ARRT Examinee Handbook).

Applicants for registration by the American Registry of Radiologic Technologists (ARRT) must at the time of application and on subsequent occasions when the registration is renewed, agree to abide by the ARRT Code of Ethics. The Code of Ethics (ARRT Examinee Handbook) is listed below.

This Code shall serve as a guide by which Radiologic Technologists may evaluate their professional conduct as it relates to patients, colleagues, other members of the medical care team, health care consumers and employers. The Code is intended to assist radiologic technologists in maintaining a high level of ethical conduct.

1. The Radiologic Technologist conducts himself/herself 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 mankind.
3. The Radiologic Technologist delivers patient care and service unrestricted by the 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, utilizes equipment and accessories consistent with the purpose for which they have been 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 utilizes equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in limiting 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 Sciences 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 individual or the community.

10. The Radiologic Technologist continually strives to improve knowledge and skills by participating in educational and professional activities, sharing knowledge with colleagues and investigating new and innovative aspects of professional practice. One means available to improve knowledge and skill is through professional continuing education.

Radiologic Sciences GOALS

The field of Radiologic Sciences is an integral part of the health care team and requires that members within this team recognize this interdependence. We must function and perform this service in the most qualified manner possible. Southern Illinois University at Carbondale strives to provide educational experiences such that those students who graduate have had foundations for performing duties of the profession in a qualified manner.

The following goals define this philosophy:

1. To provide the students with a course of study which will enable them to qualify to take the American Registry Examination in Radiography.
2. To provide the Southern Illinois area health care facilities with a continual source of qualified radiographers.
3. To provide the student with the necessary prerequisites to enable him/her to enter Advanced Modality programs in the radiological sciences following graduation.
4. To provide the student with accurate information concerning employment opportunities.
5. To continually evaluate and modify curriculum requirements to comply with the Essentials as defined by accrediting agencies specifically responsible for radiography programs and Southern Illinois University at Carbondale in general.
6. To insure that all applicants have an equal opportunity to be accepted into the program.
7. To insure that all students have an equal opportunity to succeed when enrolled in the program.

ACCREDITATION

The Radiologic Sciences program at Southern Illinois University at Carbondale is recognized as an accredited educational program by the American Registry of Radiologic Technologists (ARRT).

TECHNICAL STANDARDS FOR ADMISSION:

Students entering the field of Radiologic Sciences must have the following abilities in order to successfully complete the program.

Students must be able to:

- a. Lift 50 pounds of weight and/or assist in lifting patients using proper body mechanics.
- b. Push large pieces of equipment as in mobile radiographic units or mobile fluoroscopic units.
- c. Push patients in wheelchairs or on stretchers.
- d. Cope with, and function in the stressful situations encountered in the radiology department and in the hospital environment.
- e. See, hear, and respond quickly to patients in emergency situations.
- f. Communicate with patients and other health care professionals in oral and written forms.
- g. Understand requisitions and other records necessary for proper patient care.
- h. See the patient and collimator lights to properly position for radiographs.
- i. Move radiographic tubes, tables, upright Bucky trays, etc. as necessary for each exam.
- j. Walk for long distances as is necessary for portable radiography.
- k. Performs all duties as required of a Radiologic Technologist

Students will be given reasonable assistance in overcoming any difficulties with these standards, however, there is no guarantee that all applicants will be able to successfully complete the program if unable to perform these actions. Students concerned about these requirements should contact the Program Director.

Office phone numbers of University program faculty: If there is no answer after the fifth (5th) ring, then the call is automatically transferred to the respective RADS faculty member's answering machine/voice mail.

Sandi Watts—618-453-7229 (Director, Radiography & MRI/CT); E-mail: sjwatts@siu.edu

Rosanne Szekely—618-453-8884 (Radiography Clinical Coordinator);
E-mail: rszekely@siu.edu

Jennifer Walker—618-453-8812 (Radiography Instructor & MRI/CT Instructor);
E-mail: jennifer.walker@siu.edu

Mike Grey—618-453-7203 (MRI/CT Instructor); E-mail: mgrey@siu.edu

Jessica Whittaker—618-453-4980 (Director, Medical Sonography);

E-mail: j.whittaker@siu.edu

Shannon Anderson—618-453-2375 (Medical Sonography Clinical Coordinator);

E-mail: sanderson@siu.edu

Rick McKinnies—618-453-7260 (Director, Radiation Therapy; Radiology Management & Education); E-mail: rmck@siu.edu

Brandon Hirsch—618-453-8889 (Radiation Therapy Clinical Coordinator);

E-mail: bhirsch110@siu.edu

Robert Broomfield—618-453-7287 (Academic Advisor, Radiologic Sciences);

E-mail: broomr@siu.edu

School of Allied Health (office) - 618-453-7211. Someone is available to answer the phone from 8 a.m.-4:30 p.m., Monday through Friday.

The fax number is 618-453-7020.

Mailing Address: <Faculty Member Name>
ASA-School of Allied Health--Radiologic Sciences
1365 Douglas Drive, Mail Code #6615
Southern Illinois University Carbondale
Carbondale, IL 62901

SUGGESTED PROCEDURE FOR MAKING RADIOGRAPHS

Upon obtaining a requisition, **and** prior to taking the patient into the radiographic room:

1. Decide on the exact sequence you will use to take the images. This requires:
 - a. Knowledge of departmental routines.
 - b. Knowledge of patient's ability to be positioned in the desired manner.
2. Secure the necessary number and size of cassettes for the procedure.
3. Locate and secure any necessary accessories for the room. Examples:
 - a. foot stool
 - b. chair for patient
 - c. sandbags
 - d. pillow, sheets
 - e. adhesive tape
 - f. positioning sponges
 - g. lead strips to shield film/patient
 - h. restraining devices
 - i. stationary grid/cassette holder

ACQUIRING AND PREPARING THE PATIENT FOR THE EXAM

1. Meet the patient in the waiting room, using the desirable introductory terminology: Mr., Mrs. Miss/Ms. If the patient is your age or younger, you may use his/her first name.
2. Introduce yourself to the patient.
3. Using "layman's" terms, explain the radiographic procedure.
4. Explain the patient's role during the procedure by explaining what he/she will be expected to do. Example: being placed in the necessary positions and holding still during the exposures.
5. Proceed with the radiographic exam.
6. Prior to each exposure, caution the patient to hold still. Watch, throughout the exposure to be certain no movement has occurred.
7. After the exam is complete, instruct your patient to return to the waiting room, explaining that he/she will be informed when to leave the department. When necessary, escort the patient to the waiting room.

CHAPTER 1—CLINICAL EDUCATION

CLINICAL EDUCATION

The clinical education received in this program provides the student with the necessary clinical background in the manipulation of equipment, the handling of all types of patients, the setting of proper radiographic techniques, film/image processing, and filing skills. All areas of these basic skills must be mastered before the student can successfully complete the program and be eligible to be certified by the American Registry of Radiologic Technologists and licensed by the Illinois Emergency Management Association (formerly the Illinois Department of Nuclear Safety).

During the two-year training/education program, the student must rotate through the following clinical assignments for the length of time prescribed by the Program Director, Clinical Coordinator and/or Clinical Instructors:

- | | |
|--|--|
| 1. Rotations through affiliate hospitals | 8. Computed Tomography |
| 2. Processing procedures | 9. MRI |
| 3. File room | 10. Radiation Therapy |
| 4. Front desk | 11. Ultrasonography |
| 5. Diagnostic Radiologic Procedures
(IVPs, BEs, GIs, routine
examinations, etc.) | 12. Nuclear Medicine |
| 6. Portable Radiography | 13. Angiography-Interventional
Procedures |
| 7. Surgery | 14. Special Procedures in
Radiography |

Clinical Hours

Each SIUC Radiography student will be at his/her hospital/clinical site, 37 hours/week, excluding lunch, and excluding University recognized holidays.

- Federal holidays may not be used as clinical make-up days.
- The student may be assigned to a particular X-ray room on a rotating weekly basis, where she/he is expected to participate in all the imaging exams performed in that room.
- The student may be assigned to a particular X-ray room on a rotating daily basis, where she/he is expected to participate in all the imaging exams performed in that room.
- As the semester progresses, the student may find himself/herself assigned to work with the RTs who perform mobile imaging in the Emergency Department and/or in the patient's hospital room.
- If the student's hospital/clinical site has a dedicated radiography room built into the Emergency Department, then she/he may find himself/herself assigned to work with the ER/ED RTs.

- If the student's hospital/clinical site has a dedicated radiography room built into the Out-Patient Department, then the student may find himself/herself assigned to work with the Out-Patient RTs.
- Rotating to the Operating Room/Surgery and/or to Evening shift is at the discretion of the student's Clinical Instructor.

A certain number of clinical hours are required for each clinical semester. These are cumulative hours and if a student does not complete these hours during the allotted time she/he may be put on Radiologic Sciences Program probation with the possibility of dismissal from the Program. Individual consideration will be given to the student with a valid excuse after consultation with the Clinical Instructor and designated SIUC faculty.

Clinical Exams

Students are required to keep a record of radiographic examinations that they have observed, assisted with, and/or performed without assistance utilizing the Clinical Exam Record sheet (aka Tally Sheet). Hash marks (### #### ||) or tally marks should be converted to specific numbers for the exams the student has Observed, Assisted with, and Performed without assistance, including the exams completed for Competency testing (aka, exams Comped out).

Where a computerized patient/exam tracking system is used (RIS; PAC System), the student is required to print out a list of his/her exams on a monthly basis, then transfer the total exam numbers to the Clinical Exam Record sheet.

These Clinical Exam Record sheets are intended to guide the program in planning a balanced clinical education. Students are expected to review these reports to identify areas that need concentration to ensure she/he completes/exceeds the recommended amount of patient exams.

Student Evaluation of Clinical Experience

At the end of each clinical semester, the student is required to complete an evaluation of the respective clinical experience (**APPENDIX H**). This is an opportunity for the student to provide an evaluation of her/his clinical experiences. Through candid evaluations, the faculty can identify the strengths and weaknesses of a particular clinical affiliate and utilize this information for continuing program evaluation. Another area where this information is useful is in matching student's clinical experience weaknesses with affiliates that rate high in providing clinical experiences that address a student's weaknesses.

CLINICAL EDUCATION REQUIREMENTS

Clinical Education Requirements are designed to help the student learn to adjust to the policies and procedure of the professional work force.

Rules

1. Prompt attendance in all clinical assignments must be maintained.
2. The student must rotate through all clinical assignments and gain working knowledge of the equipment and procedures performed.
3. If time is missed from clinic, the student must have all time made up **before the beginning of the next semester**. If a prolonged illness or injury occurs which would not allow a student to make up the time prior to the beginning of the next semester, the make-up time will be left to the discretion of the Program Clinical Coordinator. However, all missed time will be made up before graduation.
4. The student must satisfactorily complete all clinic competency objectives on or before the required deadlines set each semester.
5. The required number of clinical evaluations, time sheets, exams completed and the clinical objectives must be turned in by the deadline date of each semester.
6. The student must satisfactorily complete rotations through the Advanced Modality areas such as (but not limited to) Special Procedures, Emergency Room, Computed Tomography, Portable Radiography, and Surgery.
7. The student must maintain satisfactory clinical evaluations completed by staff technologists and clinical instructors.
8. The student must satisfactorily handle emergency room patients and produce diagnostically acceptable radiographs within the specified time as designed by the program.
9. The students must demonstrate compassion and professional conduct at all times while working with patients.
10. The student must communicate properly with patients, using both proper medical terminology and plain English as necessary.
11. The student must be able to effectively communicate and work with fellow students, technologists, and medical staff.
12. Professional conduct and dress will be exhibited by the student at all times while assigned to the clinical area.
13. The student must complete, and preferably exceed, the required competencies within the specified time and is expected to retain proficiency.
14. Students will not be permitted in the clinical area except during their scheduled hours. This means students are not to attend clinical during their time off unless approved by their Clinical Instructor.

Any infraction of the above rules will result in the necessary disciplinary actions. The student must display professional behavior at all times. Each student must remember that the SIUC Student Conduct Code applies to their behavior both on campus **and** at the off-campus clinical internship site. Related details are at <http://srr.siu.edu> .

CLINICAL RADIATION PROTECTION

Policy

The following safety rules have been established for the protection of the patient, other personnel and you from ionizing radiation during your clinical education. These rules are a combination of state and federal regulations and/or laws and additional guidelines condensed from man's 100+ years' experience with ionizing radiation. These rules are mandatory and any exception must be reported to the Clinical Instructor and Clinical Coordinator as soon as possible.

Procedure

1. Regarding film badges (dosimeters):
 - a. A film badge, properly placed at collar level, must be worn at **ALL** times during clinical education semesters.
 - b. When protective aprons are used, the film badge must be placed above the apron, at collar level.
 - c. Film badges are changed every 60 days.
 - d. Film badges & holders will be turned in every semester.
 - e. If your film badge goes through the wash, then the answers to these questions must be given to your Clinical Coordinator.
 - (1) What was the wash cycle, e.g., warm wash & cold rinse?
 - (2) What was the wash water temperature?
 - (3) What was the average temperature of the dryer cycle that you used?Going through the washer & dryer may cause your film badge to produce an artificially low reading (e.g., a false-negative diagnosis on an exam). Your answers to these questions will help the Radiation Safety Officer properly interpret your film badge reading.
2. When an X-ray exposure is about to be made, you **MUST**:
 - a. Leave the room, or
 - b. Get behind the lead-lined wall of the control booth, or
 - c. Be otherwise suitably protected during surgery, portable and fluoroscopic work.
3. Specifically, **you must not hold or support a patient during exposure, nor will you hold or support a cassette during exposure.**

4. You may not observe the patient during exposure from an adjacent room or hall unless through a lead-glass protective window. You must **NOT** "peak" around a door nor through a crack between door and wall.
5. During an exposure or procedure, do not place yourself in direct line with the central ray, even though you are wearing a lead apron.
6. Under no circumstances will you permit yourself or any other human being to serve as "patient" for test exposures or experimentation.
7. If, during fluoroscopic procedures, you remain in the radiographic room the following will prevail:
 - a. A lead apron must be worn at all times or you must remain behind an adequate lead protective screen and not in visible line with either tube or patient.
 - b. The film badge must be worn above lead apron.
 - c. You must stand as far from the patient and tube as possible, consistent with the conduct of the examination.
 - d. When practical stand behind the Radiologist.
 - e. You must wear lead gloves if your proximity to the patient dictates their use.
8. When observing radiographic procedures in surgery and bedside portables:
 - a. A lead apron must be worn.
 - b. A film badge must be worn above the lead apron.
 - c. Stand as far from the patient and tube as practical.
 - d. Stand so that the central ray is pointing away from your body.
 - e. Observe all regulations which apply to work in surgery, such as preserving sterile fields, wearing surgical garments, etc. The staff technologist should be in the room during actual exposure.
 - f. In addition, when observing, you must step outside the room if you cannot stand at least 10 feet from the patient or stand behind the staff technologist during the actual exposure.

STUDENT SUPERVISION

Policy on Supervision of Diagnostic Radiography Students

1. Students must have adequate and proper supervision during all clinical assignments, which includes **direct supervision until competency is achieved**. The following conditions constitute direct supervision:
 - a. A qualified registered radiologic technologist reviews the request for the radiographic examination (1) to determine the **capability of the student** to perform the examination with reasonable success; or (2) to determine if the **condition of the patient** contraindicates performance of the examination by the student.
 - b. If either of the above determinations is questionable or negative, a qualified radiologic technologist should be present in the radiographic room.
 - c. The qualified registered radiologic technologist checks and approves the images prior to the dismissal of the patient. Medical judgment may supersede this provision.
2. After a student has demonstrated competency on an imaging procedure, the student may be under **indirect supervision** of a registered radiologic technologist on the premises, in the vicinity of the radiographic area and available for immediate assistance to the students.
3. The student will be under **direct supervision when making a repeat radiograph** during **100%** of clinical training.
4. The student will be under direct supervision in the Operating Room, Angiographic Facility, CT, MRI, Nuclear Medicine, Radiation Therapy, Sonography departments, with traumatic patients in the Emergency Room, and performing Portable exams during **100%** of clinical training.
5. The Policy on Supervision of Diagnostic Radiography Students is posted at all clinic sites so all technologists are aware.
6. The Policy on Supervision of Diagnostic Radiography is mentioned during the Advisory Meeting annually.
7. The Clinical Supervisors and Clinical Instructors are sent a written reminder of the supervision policy at the beginning of each semester.

CLINIC ROTATION ASSIGNMENTS

There are two clinic rotations throughout the diagnostic radiography portion of the Radiologic Sciences program. Assignments to the clinical sites for each rotation will be made by the Program Clinical Coordinator

Each student will be required to rotate through a minimum of two major clinic sites throughout the diagnostic radiography portion of the SIUC Radiologic Sciences program. Clinical rotations for students are based on a Lottery System. The student provides the Program Clinical Coordinator with a list of clinical sites he/she would like to attend and a lottery is then held. There are no exceptions to this process. Failure to do so may jeopardize the student's opportunity to sit for the national Registry exam.

Additionally, minor rotations are required during the second clinic semester for the areas of Radiation Therapy, Sonography, Special Procedures/Angio-Interventional Procedures, Computed Tomography, and Magnetic Resonance Imaging. These minor rotations may require some additional travel from the student's assigned clinical site.

In order to provide the student with a satisfactory clinical experience, the Radiologic Sciences program strongly discourages placing a student at a clinical site where a member of the student's immediate family is employed in the Radiology Department. The Radiologic Sciences program defines "immediate family" as spouse, children, sibling(s), parent(s), in-law(s), grandparent(s), step-children, step-parents(s), step-sibling(s) and former spouse.

EACH STUDENT MUST DEMONSTRATE PROOF OF PERSONAL HEALTH/MEDICAL INSURANCE PRIOR TO ATTENDING EACH CLINICAL ROTATION.

HOUSING CONSIDERATIONS

The Radiologic Sciences students who are "off-campus" during their clinic rotations have several decisions to consider regarding housing:

Housing Arrangements:

1. If the student lives in University Housing during "on-campus" semesters, then s/he must contact the Housing Contract Supervisor in advance of his/her "intent to vacate" and supply reasons for vacating. (Contact University Housing, at 618-453-2301.)
2. The student must submit to the Housing Contract Supervisor a completed copy of the memo developed by the Radiologic Sciences Program for the purpose of vacating University housing.
3. The student must follow the instructions for vacating University Housing so that s/he is not assessed any additional charges.

Off-Campus Housing Arrangements:

In a very limited capacity, the Radiologic Sciences staff may assist you with off-campus housing where possible. Information about housing is provided for your convenience, but the SIUC Radiologic Sciences Program does not accept responsibility for the nature, condition, or

location of housing facilities. None of the facilities/properties have been examined or approved by Program/University personnel.

Neither Southern Illinois University Carbondale nor any of its faculty, agents, or employees assume responsibility for a lease or rental agreements and cannot be held liable for nonpayment or damages.

Ultimately, the SIUC Radiography student is responsible for his/her own arrangements while at a clinical site.

HOSPITAL POLICY MANUAL

At each clinical site, the student is required to read the Hospital Policy Manual during the first two weeks of the rotation. The Hospital Policy Manual Form must be signed and returned to the Radiologic Sciences faculty to be placed in your file. This form is in **APPENDIX C** in the Clinical Education Manual.

Students have the right to submit allegations against a JRCERT-accredited program if there is reason to believe that the program has acted contrary to JRCERT accreditation standards or that conditions at the program appear to jeopardize the quality of instruction or the general welfare of its students.

If the student wishes to contact the Joint Review Committee Education in Radiologic Technology (JRCERT) regarding a situation he/she may do so with the following information:

JRCERT
20 N. Wacker Drive
Suite 2850
Chicago, IL 60606-3182
Phone: (312) 704-5300
Fax: (312) 704-5304
E-mail: mail@jrcert.org

CLINICAL COMPETENCY--BASED TESTING

Clinical Competency Testing is an evaluative measure designed to insure that students can perform designated exam objectives. Their performance is documented.

Students will be given opportunity to practice, with some limitations, procedures in the energized lab before actual performance in the clinic. Each semester clinical objectives are based on previous semester's Anatomy and Positioning course work and laboratory practice. The objectives will allow an observation and assistance time frame whereby the student has opportunity to become familiarized with the hospital's routine, techniques, and simply working in an actual setting. This time allotment or time frame is frequently the first 2-3 weeks of the clinical semester. The student will be expected to perform an exam from the designated category on a random basis of patient selection at the completion of the specified observation and assistance time allotment. The competency exam evaluation may be performed by a Clinical Instructor, his/her designee or a University RADS faculty member when available, utilizing the clinical Radiographic Evaluation Form (APPENDIX D). If the student fails a competency test, he or she must repeat the exam (test) a second time, on a different patient, until the student passes the competency exam (test). All competency test grades will be counted toward the final semester grade.

The student must achieve an 80 percent average in each required category per semester. For each examination not completed to satisfy category requirements, zeros will be averaged into the total for that specific examination.

CHAPTER 2--CLINICAL POLICIES

ATTENDANCE POLICY

During the clinical semesters, each student is required to attend to their clinical internship site Monday through Friday during assigned clinical hours, for thirty seven hours per week, for the entire semester. Lunch time is excluded in the calculation of dayshift hours.

Assigned clinical hours may be dayshift (E.g., four 7.5 hour days and one 7 hour day), or at the clinical instructor's discretion the student may have a clinical schedule of three 10-hour days and one 7 hour day (E.g. Monday thru Thursday; or Tuesday thru Friday).

During each clinical semester, there are scheduled clinical days. **All absences must be made up.** A make-up schedule will be determined by the Clinical Instructor in conference with the appropriate RADS faculty member. The only exceptions to this will be made at the Clinical Instructor's discretion. **No competency exam testing may be performed on make-up days.**

Even though the student makes up all absences, chronic absenteeism is not acceptable and it will have a negative impact on the student's clinical grade.

- Any student missing three to four days = final clinical grade is decreased by 10 points.
- Any student missing five to seven days = final clinical grade is decreased by 15 points.
- Any student with more than seven absences may be dismissed from the program.

When a student misses clinical days and does not call-in, nor make any effort to prepare a clinical day make-up schedule with his/her Clinical Instructor, then an appropriate grade penalty will be applied to the student's final clinical grade for the semester.

If a student is absent for three or more consecutive days due to illness/injury, it is required that he/she obtain a statement from his/her personal physician attesting to the student's illness or injury, and his/her fitness to return to classes and clinical patient contact.

When extenuating circumstances are involved, a committee comprised of clinical and RADS faculty will review the situation and make any recommendations.

The student is expected to report to the clinical facility at the designated time. Tardiness is not responsible, professional behavior.

It is the student's responsibility to call the Clinical Instructor within 30 minutes of the beginning of the clinical shift, if you are not going to be present or if you are going to be late.

For each late arrival in which the student did not call-in, five points (5 pts) will be deducted from the student's final clinical grade.

The following table summarizes the responsibilities of the student, Clinical Instructor and RADS faculty as they relate towards tardiness and absences from a clinical site.

PARTICIPANT	ACTION—RESPONSIBILITY	
Student	1.	<p>Tardiness</p> <p>a. Notifies Clinical Instructor/Supervisor as to late arrival within 30 minutes from start of scheduled day shift.</p> <p>b. Reports to Clinical Instructor/Supervisor upon arrival in clinical area.</p> <p>c. Makes up time at end of day shift.</p>
	2.	<p>Illness, Prolonged Illness or Injury</p> <p>a. Notifies Clinical Instructor as soon as possible of illness/injury.</p> <p>b. Calls daily to notify Clinical Instructor of prolonged absence.</p> <p>c. Keeps Clinical Instructor informed of progress.</p> <p>d. Notifies Clinical Instructor if taking any medications that will alter student’s total performance/behavior.</p> <p>e. Schedules make-up time as soon as health allows.</p>
Clinical Instructor	1. 2. 3. 4. 5.	<p>Documents all tardies/absences on student Time Sheet.</p> <p>Keeps student informed of all time to be made up.</p> <p>Counsels and advises students.</p> <p>As necessary, assigns student to non-critical areas.</p> <p>Keeps University RADS faculty informed of student status, or of potential student problems.</p>
RADS Faculty	1. 2. 3. 4. 5.	<p>Reviews all records.</p> <p>Advises Clinical Instructor.</p> <p>When necessary, counsels and advises students.</p> <p>Makes final decisions concerning extended/prolonged absences.</p> <p>Makes final decisions concerning disciplinary actions for habitual tardiness.</p>

Inclement Weather Policy

Should unsafe weather conditions occur, the student must use discretion in traveling to the clinical site. If staying off the road is the best decision, then the student must contact the Clinical Instructor/Clinical Supervisor immediately to explain his/her absence. On the student’s Time Sheet, please mark it as “SN-excused”. The rationale for this policy is that calling the Clinical Instructor/Clinical Supervisor to explain the absence, shows respect, professional courtesy, and it demonstrates the desirable character quality of taking responsibility for one’s own actions.

If the student does not call-in (within the first 30 minutes of his/her shift) to explain his/her absence, then the absence is not excused and the student must make up the clinical time. On the student’s Time Sheet, please mark it as “SN-Not excused”. The rationale is that by not

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calling the Clinical Instructor/Clinical Supervisor to explain the absence, the student is showing the undesirable character traits of presumption and of irresponsibility.

If the student calls in later in the day, then the absence is still not excused, the student must make up the clinical time, and the student's Time Sheet is marked "SN-Not excused".

Early Dismissal

In the event of afternoon weather and/or road conditions becoming unsafe, the Clinical Instructor/Clinical Supervisor may use his/her discretion concerning early dismissal of students for that day. A suggested guide for early dismissal due to unsafe weather and/or unsafe road conditions could be the:

1. Cancellation of local high school sports and extracurricular activities.
2. Cancellation of evening classes at the local university, community college and educational extension centers.
3. Cancellation of all evening civic, community, and/or religious activities.

Students dismissed early due to unsafe weather and/or unsafe road conditions are not required to make up the clinical time.

Request for Time-Off

Students requesting time off for personal reasons must present this request to the Clinical Instructor **at least two weeks in advance**.

If granted, students must arrange and schedule "make-up" time with the Clinical Instructor prior to the leave.

All jury duty time must be made up. All time off taken to meet training requirements for any military service (National Guard, Reserves, ROTC, etc.) must be made up.

After the first week of any Radiologic Sciences lecture/lab course, students who are late to or leave class early will be regarded as tardy. In clinical education, students who are late to or leave clinic early, the hours missed will be deducted from the day's regular hourly total. Habitual tardiness will not be tolerated and could be cause for dismissal.

Attendance will be required for special field trips, observations or seminars. Any hours of absence will be treated as course hours missed.

Students are advised to schedule medical, dental and other appointments outside of class and/or clinic hours to avoid penalty.

Students with children are advised to have contingency arrangements made for child-care in case of illness or other unforeseen circumstance.

WEEKENDS AND NIGHTS

To obtain the widest possible variety in clinical experience, the student may be scheduled to complete no more than 25% of their clinical education during a non-traditional clinic rotation such as an evening shift. The student should be adequately supervised by the appropriate radiography personnel.

UNIVERSITY HOLIDAYS

All students will follow the holiday schedule for Southern Illinois University at Carbondale (www.registrar.siu.edu/calendars the click on the appropriate academic year)

Clinical Instructors may use their discretion on hospital holidays that are not observed by SIUC. Hospital holidays not observed by SIUC may be used as make-up days. Otherwise, these hospital holidays are not made up.

All students may have one-half day off for correcting financial aid problems.² This day must be scheduled with both the clinical instructor and the appropriate person or persons at the University.

Students that are participating in a clinical schedule of 4 10-hour days are expected to use their “day off” for correcting financial aid problems.

TRANSPORTATION

Students are responsible for transportation to and from school and the clinical facilities. Students may park only in designated areas, both at the University and clinical sites.

²Students assigned to a clinical site more than 55 miles from Carbondale are permitted one day off for correcting financial aid problems.

EMPLOYMENT

Due to the concentrated and intensified nature of the Radiologic Sciences Program, full-time employment is not recommended. If a student must accept employment, this implies that the student will:

1. Not function under the job description of a Radiologic Technologist. In Illinois, it's illegal to hire a Radiologic Sciences student to work as an unregistered radiologic technologist. When caught by the Illinois Department of Nuclear Safety, both the facility and student will be fined in excess of \$5,000 each, and the student will be expelled from the program.
2. Not use the abbreviation "R.T. Intern" after his/her name for any purpose.
3. Not accept employment hours which conflict with class/clinical time. Students will be counseled not to work if grades warrant concern.
4. Not work more than 20-25 hours per week.

DRESS CODE

Clothing is a form of non-verbal communication that reflects confidence in ability and judgment, personal behavior and sense of professional image. Our patients' perceptions of competence and professionalism of the radiographer are often based on first impressions. These impressions are then processed into stereotypical responses to the image the radiographer presents. Thus, **the first impression of the radiographer in uniform is the strongest statement of professionalism.**

It is essential as radiography faculty and students that we present ourselves as professionals. We must look and act in a manner that conveys authority and integrity. It is important to the overall impression of our program that we maintain a high standard of professionalism. Therefore, a strict dress code policy has been developed. This policy will be enforced uniformly and final authority for interpretation lies with the Program Director.

Certain basic standards are to be observed by all radiography students. Among these are:

1. All clothing and jewelry must be consistent with professional/business dress standards applicable to the work responsibilities involved, and must be appropriate for reasonably anticipated public contact. Specifically,
 - a. All outer garments are to be clean, pressed, properly sized and in good repair.
 - (1) Scrub clothes are to be worn only when and where authorized.
 - (a) In an operating room environment, including angiography.
 - (b) When a student's uniform has been soiled by patient body fluids.
 - (c) When the clinical facility provides the scrub clothes without cost to the student.

- (2) The waistband of the dress pants/slacks must be at the level of the student's natural waistline. A coordinating belt must be worn when the dress pants/slacks have belt loops.
 - (3) All shirt-tails are to be tucked into the dress pants/slacks.
 - (4) A long white lab coat is part of the RADS student uniform and is to be clean, pressed, properly sized and in good repair.
- b. Clothing, including attached buttons/pins, will not include visible statements advertising commercial products or expressing controversial/divisive viewpoints.
 - c. Upper arms, legs, abdomen, chest and back must be covered at all times.
 - d. No head apparel is to be worn indoors unless specifically authorized.
 - e. Shoes should be plain, laced, or with a strap, with leather uppers and synthetic soles. No shoes with heels. Shoes are to be kept clean and polished. CrocsTM, clogs, slides, and sandals are prohibited.
 - f. Sweatshirts, sweatpants, shorts, jumpsuits (unless part of an authorized uniform), and T-shirts or tank tops as outer garments are prohibited.
 - g. For personal safety and infection control:
 - (1) Earrings should be limited to small button posts or studs; no more than 2 earrings per ear; preferably one earring per ear;
 - (2) Wedding rings and rings without stones may be worn, preferably one ring per hand;
 - (3) No dangling bracelets; and,
 - (4) Wrist watches should fit comfortably and be of modest size.
 - h. Appropriate undergarments are to be worn at all times.
2. No body piercings of the neck and face are to be worn indoors unless specifically prescribed/authorized as part of a uniform.
 3. All tattoos/body art must be kept covered at all times.
 4. All students must wear the name badge provided by the University during each clinical day. For facilities that supply the student with a separate badge, the identification badge must be worn so that the picture, name and department are easily visible at all times.
 5. Hair, including beards and mustaches, is to be clean, neatly groomed, and kept in such a way as not to interfere with student duties or safety. Hair that is longer than the collar on males, or longer than the shoulder on females, is to be pulled back and fastened to prevent contamination and to decrease the spread of microorganisms such as pseudomonas and staphylococcus.
 6. Make up, perfume and cologne are to be lightly applied.

7. Fingernails are to be clean, trimmed, and extend no further than 1/4" beyond fingertips. Clear or conservative light colored nail polish may be worn. Artificial and/or acrylic fingernails are prohibited in the clinical environment.
8. Personal hygiene practices are to be sufficient to ensure cleanliness and the absence of noticeable body odor.

Clinical Attire for all SIUC Radiologic Sciences students:

RADS Program specific polo shirts in black, gray, navy or maroon

Dress pants/slacks (black, dark gray, navy or khaki) with matching belt
For example: Docker style or Lee Casual style

Clean dark dress shoes or clean white athletic shoes, (walking or nursing shoes)
For example: Nurse Mates, Reebok, New Balance, Cherokee

Long white lab coat (mid-thigh or knee length)

Neutral hose or socks coordinated to dress pants/slacks

White or neutral undergarments (complete)

No long sleeves protruding from beneath the sleeves of the RADS Program
specific polo shirts

No leggings, carpenter pants, cargo pants, capri pants or stirrup pants

No low-riding or hip hugging type pants

No pantlegs stuffed into socks

Failure to comply with the dress code will result in dismissal from clinic for the day as an unexcused absence.

Markers: Right and left lead markers will be provided (by Program Director). They are to be used on every exam you perform. Should you lose one or both, you are responsible for replacing them. Contact program faculty for replacement.

Film Badges: Film badges will be provided by the University. These are to be worn at collar level at all times. If the film badge is left at home, you are to leave clinic to get it. This time must be made up. All badge reports are kept at SIUC. Each past month's report will be posted in the faculty office. The previous monthly reports are kept on file. If a film badge is lost, it will cost the student \$10.00 to replace the film badge and holder.

Exposure

Limitations: Any radiation exposure above 125 mrem (1.25 mSv) in a 60-day period will require student to provide University faculty with a written report, explaining how such a dose occurred. It may be necessary for the student to meet with University faculty to determine further clinical progress.

The Radiation Control Office which monitors all film badges and notifies the Radiography Program Director in the event of an abnormal dosimeter reading. At the request of the Program Director the RSO sends a copy of the dosimeter report to the PD who posts the report to the respective students on D2L.

REMEMBER:

For occupational radiation workers, NCRP Report #116 (1993) recommends:

1. Annual effective dose equivalent limit of 50 mSv (5 rem).
2. Cumulative (lifetime) effective dose limit of 10 mSv X age in years (1 rem X age in years).
3. Dose equivalent limits for tissue and organs:
 - a. lens of eye 150 mSv (15 rem)
 - b. all others (skin, hands, etc) 500 mSv (50 rem)

For education and training purposes, in which the student/trainee is under the age of 18 years, NCRP Report #116 (1993) recommends:

1. Annual effective dose equivalent limit of 1 mSv (0.1 rem).
2. Dose equivalent limits for tissues and organs:
 - a. lens of eye 15 mSv (1.5 rem)
 - b. all others (skin, hands, etc) 50 mSv (5 rem)

The film badge records the amount of radiation the wearer receives in a 60-day period. The film badge does not shield a person from radiation exposure, like a lead apron.

To protect promote personal radiation safety, your annual effective dose limit should be kept as low as reasonably achievable.

CLINICAL RECORDS

All students will be given the appropriate clinical forms before each clinical rotation begins. These are intended to give the student, the Clinical Instructor, and University staff an indication of the types of exams in which the student is gaining experience.

Clinical Exam Record. Students are required to keep a record of radiographic examinations they have observed, assisted with, and/or performed without assistance utilizing the Clinical Exam Record sheet (aka Tally Sheet). Hash marks (### #### ||) or tally marks should be converted to specific numbers for the exams the student has Observed, Assisted with, and Performed without assistance, including the exams completed for Competency testing (aka, exams Comped out).

Monthly tallies of exams are recorded and compiled into a semester tally, thus, five (5)

Clinical Exam Record sheets will be handed in at the end of the semester.

Example: At the end of Spring semester, the student will hand in 5 Clinical Exam Record pages.

- One sheet for January 20xx exams;
- One sheet for February 20xx exams (may be combined with January exams);
- One sheet for March 20xx exams;
- One sheet for April – May 20xx exams; and,
- One sheet for the entire semester January -May 20xx.

Where a computerized patient/exam tracking system is used (RIS; PAC System), the student is required to print out a list of his/her exams on a monthly basis, then transfer the total exam numbers to the Clinical Exam Record sheet.

If the Imaging Department’s computerized patient/exam tracking system does not permit the student to print out a list of his/her exams on a daily or monthly basis, then the student must manually record his/her exams. This manual recording process can take the form of the student creating a “Clinical Exam Log” by recording his/her daily exams in a notebook, using the column headings of:

MR#	Exam(s) Performed	Date	Observed (O); Assisted (A); Performed (P)	Initials of RT student worked with
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Then transferring the exam numbers from this “Clinical Exam Log” to the appropriate Clinical Exam Record sheet for each clinical month,

Once the student has completed his/her monthly Clinical Exam Record sheet, the student must shred the appropriate contents of his/her “Clinical Exam Log,” to avoid violating HIPAA.

These Clinical Exam Record sheets are intended to guide the program in planning a balanced clinical education. Students are expected to review these reports to identify areas that need concentration to ensure she/he completes/exceeds the recommended amount of patient exams.

Clinical Time Sheet. The Radiologic Sciences Program Attendance Policy requires all students to be on-site Monday through Friday, during day-shift hours, thirty-seven hours/week, for the entire semester. All late arrivals must be called in (within the first 10 minutes of the start of the dayshift) to the appropriate Clinical Instructor, and MUST be made up. All absences must be called in (within the first 30 minutes of the start of the dayshift) to the appropriate Clinical Instructor, and MUST be made up.

All Clinical Instructors have the appropriate attendance sheets and they are responsible to record a student's absence, tardiness, etc. It is advisable for students to periodically check with the Clinical Instructor concerning days missed, etc. An attendance sheet must be turned in at the end of the semester by the clinical instructor from each hospital. The sheet must be **signed by the Clinical Instructor**. The attendance sheet turned in at the end of each semester represents the official record of each student's time in the clinical environment.

Competency Exams (Radiographic Exam Evaluation Form). Each semester's clinical objectives are based on previous semesters' Anatomy and Positioning course work and laboratory practice. The objectives allow an observation and assistance time frame whereby the student has opportunity to become familiar with the hospital's imaging routine, radiation exposure techniques, and simply working in that clinical setting. The student will be expected to perform exams from the designated category on a random basis of patient selection at the completion of the specified observation and assistance time allotment.

The Competency Exam evaluation may be performed by a Clinical Instructor, his/her designee, or an ARRT registered radiographer utilizing the radiographic exam evaluation form and the hospital's imaging routine for that exam. On the reverse side of each Competency Exam (Radiographic Exam Evaluation) form is a listing of the basic criteria to be used to evaluate each Competency exam.

Additionally, there is a numerical grading scale to use, as desired, where the best score for each radiographic image is 5, and the worst score is 1. The evaluating radiographer may include written comments in the rectangles beneath each radiographic image heading.

If the student fails a competency test, he or she must retest on the particular exam until the student has passed the competency test. All graded Competency Exams will be counted toward the final grade.

The student must achieve an 80 percent average in each required category per semester. For each examination not completed to satisfy category requirements, zeros will be averaged into the total for that specific examination.

Monthly Attitude & Performance Evaluation (Behavior Evaluation). The Behavior Evaluations provide periodic documentation of each student's personal and professional growth throughout the clinical semester. It takes the form of a 12-item multiple choice questionnaire with space for the evaluator's comments. Ideally, the radiographer (RT)

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that has worked the most with a student, in a 4-5 week time period, should be the person to
complete the Behavior Evaluation, with input from the Clinical Instructor/Clinical Supervisor.

A professional growth pattern of Fair-Good (1st Evaluation), to Better (2nd Evaluation), to
Best or something similar (3rd Evaluation) over the course of the semester is desired.

PATIENT HOLDING POLICY

Under no circumstances are you permitted to hold patients during an exposure. If the
situation demands that a patient be held for an exposure, you may make the exposure while an
employee or relative holds the patient. If clinical personnel require clarification of this policy,
please contact one of the university faculty.

COMMUNICABLE DISEASE POLICY

If a student, through patient contact, contracts a communicable disease, such as:

measles	herpes
mumps	tuberculosis (TB)
chicken pox	mononucleosis
rubella	acquired immune deficiency syndrome (AIDS)
hepatitis B	meningitis
AIDS-Related Complex (ARC)	

It is the **student's responsibility** to inform the Clinical Instructor and the program Clinical
Coordinator of such disease and treatment.

In the event of such disease contraction, RADS faculty will attempt to counsel the student
concerning career options and future plans.

Current program policy and University policy toward communicable disease will be
followed. These policies are described in **APPENDIX B** of the Radiologic Sciences Student
Handbook of General Policies.

INSURANCE, ACCIDENTS AND INCIDENTS

Malpractice Insurance

Students are required to carry malpractice liability insurance. Prior to starting the first
clinical rotation, each student is enrolled in the Southern Illinois University Self-Insurance
Program. Upon written request, a copy of the Certificate of Insurance will be sent to the radiology
administrator at each clinical affiliate.

Medical Insurance

Each student is required to have medical coverage via the University Health Program or by a private insurance company. All injuries sustained by students at the clinical site or on campus must be reported to the Radiologic Sciences Program Director. **Failure to report accidents and complete the required paperwork within 10 days from the time of injury may result in a rejection of the claim by the student's insurance company or the University Health Service.**

Students may go to their personal physician **or** be treated in the Hospital Emergency Room (ER) if medical attention is needed. Treatment of students in the ER is **not** free regardless of whether or not hospital personnel suggest they go there.

Incidents and Accidents

Following every accident or incident involving injury or possible injury, the student is to notify his/her Clinical Instructor immediately. Upon notification the Clinical Instructor is to arrange to have the student evaluated by a physician in the Emergency Room or in the Employee Health Clinic. An incident report should be completed as soon as possible.

Pages 28 and 29 in the Radiologic Sciences Student Handbook of General Clinical Policies contains a table of responsibilities of the student, Clinical Supervisor and University faculty as they relate to student incidents and accidents at a clinical site.

APPENDIX G in the Radiologic Sciences Student Handbook of General Clinical Policies contains instructions for completing the University Report for Injury/Incident/Hazard and the University Blood borne Pathogens Exposure Report.

The Pregnant Diagnostic Radiography Student

The embryo-fetus is a rapidly reproducing cell system. As such, it is especially sensitive to radiation damage. The effects of radiation in utero are time related and dose dependent. These effects include prenatal death, neonatal death, and congenital abnormalities especially of the central nervous system, malignancy induction, and general impairment of growth, genetic effects and mental retardation.

Digital radiography, digital fluoroscopy, and angio-interventional procedures use high frequency generators where the radiation intensity at the tabletop can be 20 R per minute, and the radiation dose to the patient approaches 300 rad (3.0 Gy). As such, the scatter radiation has a greater intensity than that produced during routine fluoroscopy.

Similarly, the pregnant student must be aware of the hazards from Nuclear Medicine examinations. For example, radioiodine is known to concentrate in the thyroid gland. The fetal thyroid gland begins functioning at 10 weeks gestation. Radioiodine readily crosses the placenta, enters fetal circulation and concentrates in the fetal thyroid gland, thus impairing the growth and function of this vital organ. The pregnant Radiologic Sciences student must use extreme caution when working with Nuclear Medicine patients to reduce her chances of absorbing minute amounts of radioiodine and/or other radioactive substances.

Objective 4.2, of the "Standards for an Accredited Educational Program in Radiologic Sciences" of the Joint Review Committee on Education in Radiologic Technology (JRCERT) states "Has a published pregnancy policy that is applicable with federal regulatory and state laws made known to accepted and enrolled female students." In order to comply with Objective 4.2, the SIUC Radiologic Sciences Diagnostic Radiography faculty in conjunction with the Radiologic Science Advisory Committee believes it is the responsibility of the pregnant Radiologic Sciences student to advise her Clinical Instructor and Program Clinical Coordinator **voluntarily** and in **writing** of her pregnancy and estimated date of the baby's birth (delivery). Formal, voluntary notification (declaration of pregnancy) is the only means by which the clinical facility and the SIUC Radiologic Sciences program can ensure that the dose to the embryo-fetus is limited during the pregnancy. In the absence of the voluntary, written disclosure, a student cannot be considered pregnant. (This policy of voluntary notification is based on U.S. Nuclear Commission Regulatory Guide 8.13, Revision 3, June 1999, "Instruction Concerning Prenatal Radiation Exposure").

The total dose limit to the embryo-fetus, during pregnancy is 5 mSv (500 mrem). Once the pregnancy is declared, the fetal exposure must not exceed 0.5 mSv (50 mrem) per month, as monitored by a "Baby" film badge, and worn at waist level beneath a lead apron. To comply with this embryo-fetus dose limit, the pregnant Radiologic Sciences student has the option to:

1. Continue her clinical and didactic education without modification or interruption. The student accepts full responsibility for her own actions and the health of her baby. Furthermore, the student absolves from liability her Clinical site and its Radiology staff, the SIUC Radiologic Sciences program and its faculty, and SIUC, from all complications that may occur during fetal growth, the birth, and the postnatal development of her baby.
2. Continue her clinical and didactic education with some modification of her clinical assignments. The pregnant student will not participate in C-Arm procedures, angiography, Nuclear Medicine exams, and high-dose rate brachy-therapy rotations. A grade of incomplete "INC" will be given until the student has completed all clinical education missed during the pregnancy. The completion of the "INC" may delay the student's sitting for the ARRT Radiography Exam, or any of its Advanced Exams.

3. Take a leave of absence from the clinical assignments during her pregnancy. A grade of incomplete "INC" will be given until the student has completed all clinical and didactic education missed during the pregnancy. The completion of the "INC" may delay the student's sitting for the ARRT Radiography Exam, or any of its Advanced Exams.
4. Take a leave of absence from the Radiologic Sciences program. If the student notifies the Program Director of her desire to return, she will be offered a position in the next class, in the following year.

Appendix B in the Diagnostic Radiography Clinical Evaluation Manual contains the Diagnostic Radiography Pregnancy Policy and the following documents:

1. 32 Illinois Administrative Code, Chapter 2, Section 340.280, Subchapters a-e.
2. U. S. Nuclear Regulatory Commission, Regulatory Guide 8.13, Revision 3, June 1999, "Instruction Concerning Prenatal Radiation Exposure."
3. NCRP Report #116, 1993, Section 10 "Protection of the Embryo-Fetus."

Further information on the fetal effects of radiation is found in the student's radiographic physics book, Chapters 37 and 39. (Bushong, S. C. (2013). *Radiologic science for technologists: Physics, biology and protection*, 10th edition. St. Louis, MO: Elsevier Science/Mosby, Inc.).

The Radiologic Sciences student has the option to withdraw a previous declaration of pregnancy. It is her responsibility to advise her Clinical Instructor and Program Clinical Coordinator **voluntarily** and in **writing** of the change in declaration.

Additionally, the student must return the previously acquired "Baby" dosimeter for proper processing, and for the closing of the "Baby's" dosimeter record.

MAGNETIC RESONANCE (MR) SAFETY SCREENING PROTOCOL

Magnetic resonance imaging, or MRI, is a way of obtaining very detailed images of organs and tissues throughout the body without the need for x-rays or "ionizing" radiation. Instead, MRI uses a powerful magnetic field, radio waves, rapidly changing magnetic fields, and a computer to create images that show whether or not there is an injury, disease process, or abnormal condition present. For the MRI procedure, the patient is placed inside the MR scanner—typically a large, tunnel or doughnut-shaped device that is open at both ends. The powerful magnetic field aligns protons that are present in most of the body's tissues. The applied radio waves then cause these protons to produce signals that are picked up by a radio frequency receiver (RF receiver) within the MR scanner. The signals are characterized using the rapidly changing magnetic field, and, with the help of computer processing, very clear images of tissues are created as "slices" that can be viewed in any orientation.

The powerful magnetic field of the MR system will attract iron-containing (also known as ferromagnetic) objects and may cause them to move suddenly and with great force. This poses a possible risk to the patient or anyone in an object's "flight path." Great care is taken to be certain that objects such as ferromagnetic screwdrivers and oxygen tanks are not brought into the MR system area.

In a similar manner, smaller iron-containing objects such as certain medication pumps, medication patches, or aneurysm clips may move suddenly and with great force, when in the presence of powerful magnetic fields of an active MRI scanner. Such forceful motion may damage the device, cause the device to malfunction or cause personal injury.

Every MRI facility has a comprehensive patient screening procedure and protocol that, when carefully followed, ensures that the MRI technologist and radiologist knows about the presence of metallic implants and materials so that special patient imaging precautions can be taken. For example:

- Due to the presence of an unacceptable implant or device, the exam may be canceled.
- The MRI exam will not be performed if a ferromagnetic aneurysm clip is present because there is a risk of the clip moving or being dislodged.
- Certain medical implants can heat substantially during the MRI examination as a result of the radiofrequency energy that is used for the procedure.

Before an MRI exam the patient is asked to fill out a screening form asking about anything that might create a health risk or interfere with imaging. Items that may create a health hazard or other problem during an MRI exam include:

- Cardiac pacemaker or implantable defibrillator;
- Catheter that has metal components that may pose a risk of a burn injury;
- A ferromagnetic metal vascular clip placed to prevent bleeding from an intracranial Aneurysm;
- An implanted or external medication pump (such as that used to deliver insulin or a pain-relieving drug);
- A cochlear (inner ear) implant;
- A neurostimulation system;
- A catheter that has metallic components that may pose a risk of a burn injury.

Objects that may interfere with image quality if close to the area being scanned include:

- Metallic spinal rod
- Metallic microfibers (threads) imbedded in the fabric of athletic clothing
- Plates, pins, screws, or metal mesh used to repair a bone or joint
- Joint replacement or prosthesis
- Metallic jewelry including those used for body piercing
- Some tattoos or tattooed eyeliner (these alter MR images, and there is a chance of skin irritation or swelling; black and blue pigments are the most troublesome)
- Makeup, nail polish or other cosmetic that contains metal
- Bullet, shrapnel, or other type of metal fragment
- Metallic foreign body within or near the eye (such an object generally can be seen on an x-ray; metal workers are most likely to have this problem)
- a bullet or other metallic fragment in your body (e.g., any metallic foreign body) there is a potential risk that it could change position, possibly causing personal injury.
- Dental fillings (while usually unaffected by the magnetic field, they may distort images of the facial area or brain; the same is true for orthodontic braces and retainers)

As an SIUC Radiologic Sciences student, you may have an occasion to assist with moving a patient into or out of the MRI scanner, it is vital that you remove all metallic objects in advance of entering the MRI scanning room, including watches, jewelry, and items of clothing that have metallic threads or fasteners. Items that need to be removed

by SIUC Radiologic students before entering the MR system room include, and are not limited to:

- Purse, wallet, money clip, credit cards, cards with magnetic strips;
- Electronic devices such as beepers or cell phones;
- Hearing aids; dosimeter (film badge) holder;
- Metal jewelry, watches , safety pins;
- Pens, metal spiral notebook, paper clips, keys, coins; and,
- Hair barrettes, hairpins, Program name pin.
- Metallic microfibers (threads) imbedded in the fabric of a T-shirt.

Removal of these items is for the safety of yourself, the patient, and the Imaging personnel around you.

Additionally, if an SIUC Radiologic Sciences student has on, or within his/her body, any of the previously listed hazardous or interfering devices, then the Radiologic Sciences faculty have developed an MRI Safety Screening Protocol form, located on page 86. This form and the content of the previous pages is to provide appropriate safety information pertaining to magnetic fields and radiofrequency hazards.

While assisting in the MR environment, should an SIUC Radiologic Sciences student feel any intolerable pulling, unnatural heat or burning sensation within himself/herself then the student must leave the MR environment as quickly as possible, to prevent personal injury.

During each clinical orientation, the radiologic student will need to fill out the MRI Safety Screening Form and sign the form BEFORE attending the respective clinical semester.

CHAPTER 3—CLINICAL COURSEWORK

GUIDELINES

RAD 222. This is the first clinical assignment in the diagnostic radiography portion of the Radiologic Sciences program sequence. During this time you will become acquainted with the hospital and the radiology department structure and personnel. In addition, you will begin radiography of the patient. The emphasis will be on your experiences and demonstrated competency on the examinations listed in the clinical objectives.

You will be tested by the Clinical Instructor, or a qualified staff radiologic technologist, as to your knowledge of the hospital, department and radiographic rooms. In addition, you will be competency tested on the examinations listed in Categories 1 through 7. You will also be evaluated on the behavioral/attitudinal traits you exhibit.

The final clinical grade in RAD 222 will be determined as follows:

Competency Performance	60%	(based upon completion of a minimum of 26 exams)
Attitudinal Performance	40%	(based upon recommended 5th, 10th, and 15th week Personal/ Professional Growth Evaluations)
Attendance/Tardiness/Initiative Adjustment	Added to the total weighted score.	

The final clinical grade for RAD 222 is calculated as the sum of:

- o the weighted Competency average
- o the weighted Performance Evaluation average, and,
- o the Attendance/Initiative adjustment.

The RAD 222 clinical grade is reflected in the following grading scale.

- 93 -100 = A - Exceptionally high achievement and superior initiative.
- 85 - 92 = B - High achievement and above average initiative.
- 75- 84 = C - Satisfactory achievement and average initiative.
- Below 75 = F - Unsatisfactory achievement and unacceptable initiative.
Student does not progress to the next semester in the Program.

Any competency category, not having the minimal number of completed competencies will result in a semester grade of incomplete (**INC**). This incomplete **must** be completed by the start of the next academic semester.

Failure to complete an incomplete within the prescribed time may jeopardize a student's progress within the program.

COURSE OBJECTIVES

1. Perform competency exams within Category 1 through 7.
2. Observe and assist with exams in the following areas:
 - angiography
 - surgery
 - portables
 - headwork
 - myelography
 - arthrography
 - advanced fluoro procedures
3. Maintain clinical exam records as provided by the University.
4. Observe the radiologist interpreting radiographs a minimum of one hour per week for the entire semester.
5. Identify any contrast material utilized for the appropriate radiographic examination.
6. Identify the patient preparation required for an appropriate exam.
7. Satisfactorily complete the orientation objectives in the following areas:
 - a. Radiographic Room
 - b. Radiology Department
 - c. Hospital
8. Maintain a clinical positioning journal, listing the following items, for the examinations in the required categories:
 - a. Routine projections
 - b. Adult film sizes
 - c. Routine distance and tube angle
 - d. Accessory equipment

The designated SIUC faculty will use the appropriate clinical grade sheet to determine a letter grade for this semester. **APPENDIX F** contains a sample of each of the two clinical grade sheets.

ORIENTATION

It is important that all students become familiar with each hospital and radiology department they attend. Listed below, are the suggested criteria for hospital, department and radiographic room orientations. It is the responsibility of each Clinical Instructor to see that each student meets the criteria. Additional criteria may be added due to specifics of each department. The evaluation in this area may be written, oral and/or psychomotor. Evaluations are S (satisfactory) or U (unsatisfactory). Any student that receives a U must review again the criteria for each area and be evaluated again until an S is achieved. Failure

Southern Illinois University Carbondale Radiologic Sciences
to achieve an S by mid-semester will result in the final clinical grade being lowered by 5 points.

DEPARTMENT ORIENTATION OBJECTIVES (for all clinical rotations)

The student will be able to perform the following:

1. State the main purpose for each radiographic room in the department.
2. Draw an organizational chart of the radiology department personnel, in descending order of authority.
3. Identify the medical director of the department.
4. Identify the administrative technologist of the department.
5. Explain the departmental filing system utilized for radiographs and examination reports.
6. Demonstrate the procedure utilized for processing a patient through the department, beginning with the initial paperwork and concluding with the patient-dismissal process.
7. Explain what happens to a radiograph after it is processed and approved for reading.
8. Demonstrate the departmental patient-transportation procedure.
9. State the time-temperature requirements of the processor in the department.
10. List the routine projections and sizes of film for the following examinations of an adult:
 - a. hand
 - b. wrist
 - c. forearm
 - d. elbow
 - e. humerus
 - f. shoulder
 - a. toes
 - b. foot
 - c. ankle
 - d. lower leg
 - e. knee
 - f. femur
 - g. hip
 - a. S-I joints
 - b. sacrum
 - c. coccyx
 - d. L spine
 - e. T spine
 - f. C spine
 - a. chest
 - b. abdomen

HOSPITAL ORIENTATION OBJECTIVES (for **all clinical rotations)**

The student will be able to:

1. Locate:
 - a. general medical patient rooms
 - b. general surgical patient rooms
 - c. intensive care
 - d. newborn nursery, where applicable
 - e. orthopedics
 - f. pediatrics
 - g. recovery room
 - h. surgery

2. Locate the following departments and define their main purpose with 100 percent accuracy:
 - a. administration
 - b. admission office
 - c. central supply
 - d. emergency room
 - e. laboratory
 - f. personnel office
 - g. pharmacy
 - h. surgery
 - i. respiratory therapy
 - j. physical therapy

3. Describe the departmental procedure for cardiac/respiratory arrest, allergic reactions and fire drills.

GENERAL RADIOGRAPHIC ROOM ORIENTATION OBJECTIVES (For all clinical rotations)

The student will be able to:

1. Locate:
 - a. x-ray tube(s)
 - b. light controls
 - c. table and wall grid, if applicable
 - d. technique chart(s)
 - e. comfort and immobilization devices
 - f. calipers
 - g. radiation protection devices
 - h. emergency equipment
 - i. tube rating, heat unit, and cooling charts
 - j. control panel switches and meters to include:
 - (1) kilovoltage
 - (2) milliamperage stations
 - (3) timer
 - (4) mAs

- (5) automatic exposure controls (AEC, density control, photocells)
 - (6) tube control switch (if two tubes operate off one generator)
 - (7) exposure and ready (rotor) switch
 - (8) automatic collimation control, if applicable
 - (9) line voltage compensator meter if applicable
 - (10) DC mA meter, if applicable
2. State:
- a. maximum kilovoltage and milliamperage possible
 - b. the system for identifying exposure overload
 - c. grid ratio and lines per inch for the table and wall grid
 - d. the type(s) of grid (focused or linear)
 - e. using decimal fractions, calculate mA and time values for obtaining the following:
 - (1) 10 mAs
 - (2) 20 mAs
 - (3) 50 mAs
 - (4) 100 mAs
 - (5) 150 mAs
3. Demonstrate:
- a. Vertical movement of the tube and table.
 - b. Horizontal movement of the tube and table
 - c. Alignment of the tube and bucky for:
 - (1) 5° cephalic angulation
 - (2) 10° caudal angulation
 - (3) 45° caudal angulation
4. Locate routine supplies (linen, bedpans, and urinals).

RADIOGRAPHIC COMPETENCIES

Following an observation and practice period, the student will be able to perform specific examinations. The minimum number of different exams which are required per category for the category to be complete are in parentheses beside the category heading. All defined categories must be completed at an 80 percent level, or better, to pass this course. The exams listed in each category are mandatory core clinical competencies that individuals must demonstrate to establish eligibility for ARRT certification.

Competency testing may begin at any time during the semester, provided the student has had adequate opportunity to practice the designated exams and feels competent to complete them. He or she must check with the Clinical Instructor or qualified technologist before attempting a competency test and the Clinical Instructor or qualified technologist must observe the examination.

After a student has completed a competency examination, it will be reviewed by the Clinical Instructor or a qualified technologist and an evaluation will be completed for each projection using the radiographic evaluation form.

All grades from the various radiographic competencies completed will count 60 percent of the student's final grade.

1. Category 1 (min. 5 Mandatory exams/max. 7)
 - a. Fingers
 - b. Hand
 - c. Wrist
 - d. Forearm
 - e. Elbow
 - f. Humerus
 - g. Shoulder (c or s Y view)
 - h. Thumb
2. Category 2 (min. 5 Mandatory exams/max. 7)
 - a. Toe
 - b. Foot
 - c. Ankle
 - d. Lower Leg
 - e. Knee
 - f. Femur
 - g. Hip
 - h. Trauma Hip w/cross-table lateral
 - i. Calcaneus
3. Category 3 (min. 4 Mandatory exams/max. 5)
 - a. Pelvis
 - b. S-I joints
 - c. Sacrum/coccyx
 - d. Scoliosis Series
 - e. Lumbar spine
 - f. Thoracic spine
 - g. Cervical spine
4. Category 4 (min. 5 Mandatory exams/max. 6)
 - a. Chest (Adult, routine)
 - (1) Chest, age 6 years or younger
 - (2) Chest, wheelchair or stretcher
 - b. Abdomen Series
 - c. IVP/with tomos
 - d. UGIs
 - e. Esophogram
 - f. Small bowel
 - g. Colon
 - h. Colon with air
 - i. Oral gall bladder
5. Category 5 (min. 0-1 Mandatory exam)
 - a. A-C Joints
 - b. Clavicle
 - c. Ribs
 - d. Sternum
 - e. Scapula
 - f. S-C Joints
6. Category 6 (min. 0-2 Elective exams)
 - a. Skull
 - b. Facial bones
 - c. Sinuses
 - d. Nasal bones
 - e. TMJs (w or w/o tomos)
 - f. Mandible
 - g. Mastoids
 - h. Orbits
 - i. Optic foramen
 - j. Sella turcica
7. Category 7 (minimum 1 Mandatory exam/max. 4)
 - a. Arteriogram/DSA
 - b. Arthrogram
 - c. Cysto/Retro Pyelgm
 - q. Portables/Recovery
 - (1) Head work
 - (2) Spine work

- d. ERCP/Lithotripsy
- e. Fistulogram
- f. Hysterosalpingogram
- g. IV Cholangiogram
- i. Myelogram
- j. PTC/EKG (ECG)
- k. T-Tube Cholang.
- l. Tomography (excludes IVP and IVC)
- m. Venogram
- n. VCU
- o. Sialogram
- p. C-Arm Work
 - (1) Fx Reductions
 - (2) Laminectomy
 - (3) OR Cholang/Chole Lap
 - (4) Hip-Replacement or Nailing
 - (5) Pacemaker/CVP Line/Q-Port/SWAN-GANZ/PortaCath
 - (6) Declot Angiogram
 - (7) Colonoscopy/Endoscopy
- r. Surgery Portable
 - (3) Extremities
 - (4) Abdomen
 - (5) Chest
 - (1) Fx Reductions
 - (2) Laminectomy
 - (3) OR Cholang/Chole Lap
 - (4) Hip-Replacement or Nailing
 - (5) Pacemaker/CVP Line/Q-Port/SWAN-GANZ/PortaCath

TECHNICAL COMPETENCIES

During the course of this clinical semester, the student shall be able to:

1. Use oral and written medical communication;
2. Demonstrate knowledge of human structure, function and pathology;
3. Anticipate and provide basic patient care and comfort;
4. Apply the principles of body mechanics;
5. Perform basic mathematical functions;
6. Operate radiographic imaging equipment and accessory devices;
7. Position the patient and imaging system to perform radiographic examinations and procedures;
8. Modify standard procedures to accommodate for patient condition and other variables;
9. Correctly process radiographs to obtain diagnostic quality radiographs;
10. Determine exposure factors to obtain diagnostic quality radiographs with minimum radiation exposure;
11. Adapt exposure factors for various patient conditions, equipment, accessories, and contract media to maintain appropriate radiographic quality;
12. Practice radiation protection for the patient, self and others;
13. Recognize emergency patient conditions and initiate first-aid and basic life-support procedures;
14. Evaluate radiographic images for appropriate positioning and image quality; and,
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority.

RAD 332

GUIDELINES

RAD 332. This is the second clinical course of the sequence. Students are expected to demonstrate knowledge and competency of examinations in Categories 1 through 8. Special assignments in other areas of diagnostic imaging and Radiologic Sciences will be performed for four to five weeks of the semester.

GRADING and EVALUATION

The final clinical grade for RAD 332 is calculated as the sum of the weighted Competency average, the weighted Performance average, and the Attendance/Initiative adjustment.

Competency Performance	50%	(based upon completion of at least 21 different exams)
Attitudinal Performance	50%	(based upon 5th, 10th, & 15th week Personal/Professional Growth Evaluations)
Attendance/Tardiness/Initiative Adjustment	Added to the total weighted score.	

The final clinical grade for RAD 332 is calculated as the sum of:

- o the weighted Competency average (Mandatory, Elective & Program Required)
- o the weighted Performance Evaluation average, and,
- o the Attendance/Initiative adjustment.

The RAD 332 clinical grade is reflected in the following grading scale.

- 93 -100 = A - Exceptionally high achievement and superior initiative.
- 85 - 92 = B - High achievement and above average initiative.
- 75 - 84 = C - Satisfactory achievement and average initiative.
- Below 75 = F - Unsatisfactory achievement and unacceptable initiative.
Student does not progress to the next semester in the Program.

Any competency category, not having the minimal number of completed competencies will result in a semester grade of incomplete (INC). This incomplete **must** be completed by the start of the next academic semester.

Failure to complete an incomplete within the prescribed time may jeopardize a student's progress within the program.

The designated SIU faculty will use the appropriate clinical grade sheet to determine a letter grade for this semester. (**APPENDIX F**)

COURSE OBJECTIVES

1. Perform competency exams within Category 1 through 7.
2. Observe and assist with exams during Advanced Modality rotations (Category 8).
3. Maintain a clinical record notebook on a daily basis.
4. Observe the radiologist interpreting radiographs.
5. Maintain a clinical positioning journal for the examinations in the required categories.
6. Identify any contrast material utilized for the appropriate examination.
7. Identify patient preparation required for appropriate exam.
8. Satisfactorily complete the orientation objectives in the following areas: (Please refer to these sections, under the guidelines for RAD 222, for the specific objectives.)
 - a. Radiographic Room
 - b. Radiology Department
 - c. Hospital

RADIOGRAPHIC COMPETENCIES

Below are the required categories for this course with the minimum number of exams in each category listed. All defined categories must be completed at an 80 percent level, or better, to pass this course. The exams listed in each category are mandatory core clinical competencies that individuals must demonstrate to establish eligibility for ARRT certification.

1. Category 1 (complete Mandatory exams)

a. Fingers	e. Elbow
b. Hand	f. Humerus
c. Wrist	g. Shoulder (w or w/o Y view)
d. Forearm	h. Thumb
2. Category 2 (complete Mandatory exams)

a. Toe	f. Femur
b. Foot	g. Hip
c. Ankle	h. Trauma Hip w/X-table lateral
d. Lower Leg	i. Calcaneus
e. Knee	
3. Category 3 (complete Mandatory exams)

a. Pelvis	e. Lumbar spine
b. S-I joints	f. Thoracic spine
c. Sacrum/coccyx	g. Cervical spine
d. Scoliosis Series	
4. Category 4 (complete Mandatory exams)

a. Chest (Adult, routine)	e. Esophogram
---------------------------	---------------

- (1) Chest, age 6 years or younger
 - (2) Chest, wheelchair or stretcher
 - b. Abdomen Series
 - c. IVP/with tomos
 - d. UGIs
 - f. Small bowel
 - g. Colon
 - h. Colon with air
 - i. Oral gall bladder
5. Category 5 (complete Mandatory exams)
- a. A-C Joints
 - b. Clavicle
 - c. Ribs
 - d. Sternum
 - e. Scapula
 - f. S-C Joints
6. Category 6 (complete 2 or more Elective exams)
- a. Skull
 - b. Facial bones
 - c. Sinuses
 - d. Nasal bones
 - e. TMJs (w or w/o tomos)
 - f. Mandible
 - g. Mastoids
 - h. Orbits
 - i. Optic foramen
 - j. Sella turcica
7. Category 7 (complete Mandatory exams)
- a. Arteriogram/DSA
 - b. Arthrogram
 - c. Cysto/Retro Pyelgm
 - d. ERCP/Lithotripsy
 - e. Fistulogram
 - f. Hysterosalpingogm
 - g. IV Cholangiogram
 - h. Myelogram
 - i. PTC/EKG (ECG)
 - j. T-Tube Cholang.
 - k. Tomography (excludes IVP and IVC)
 - l. Venogram
 - m. VCU
 - n. Sialogram
 - o. Portables/Recovery
 - (1) Head work
 - (2) Spine work
 - (3) Extremities
 - (4) Abdomen
 - (5) Chest
 - p. Surgery Portables
 - (1) Fx Reductions
 - (2) Laminectomy
 - (3) OR Cholang/Chole Lap
 - (4) Hip-Replacement or Nailing
 - (5) Pacemaker/CVP Line/Q-Port/SWAN-GANZ/PortaCath
 - q. C-Arm Work
 - (1) Fx Reductions
 - (2) Laminectomy
 - (3) OR Cholang/Chole Lap
 - (4) Hip-Replacement or Nailing
 - (5) Pacemaker/CVP Line/Q-Port/SWAN-GANZ/PortaCath
 - (6) Declot Angiogram

ADVANCED MODALITY ROTATIONS (CATEGORY 8)

During a four week special assignment period, the student will observe and assist in the following Advanced Modalities:

1. Ultrasound (Medical Sonography)
2. C.T. Scanning (Computerized Tomography)
3. Radiation Therapy (Radiation Oncology)
4. MRI (Magnetic Resonance Imaging)

Optional advanced modality rotations are Angiographic/Interventional procedures, Bone Densitometry and Nuclear Medicine.

In order to receive proper Category 8 credit (that is, in order to ‘comp out’ in Category 8 advanced modalities) for each advanced modality rotation, the student must:

- Write out the answers to the Objectives for the desired modality by the end of the week’s rotation;
- Ask the modality Clinical Supervisor/Clinical Instructor to complete the modality “Student Evaluation;” and,
- Hand in the completed modality Objectives and modality “Student Evaluation” to his/her University Clinical Coordinator, at the designated due date.

There is a Clinical Instructor for each of the advanced modalities who is responsible for insuring that students complete these objectives.

Each student is expected to spend 37 hours (4 8-hour days and 1 5 hour day), each, in these Advanced Modalities. Failure to complete the require hours in an Advanced Modality will have a negative effect on the student’s clinical grade for the semester.

Chronic absenteeism from any Advanced Modality Rotation may result in the student being terminated from the program.

The advanced modality objectives are located in **APPENDIX E** (starting on page 73).

Early dismissal from an Advanced Modality Rotation:

If an advanced modality completes its last patient early (e.g., 12noon), and has a ‘skeleton crew’ in the afternoon due to equipment/scanner preventive maintenance, and the advanced modality Supervisor gives the student permission to leave that department, **then** the SIUC radiography student must return to the main Radiology department and participate in patient exams until his/her dayshift hours are complete.

Ultimately, early dismissal from an advanced modality rotation is at the discretion of the advanced modality Supervisor in conjunction with the Radiology department’s dayshift Supervisor.

TECHNICAL COMPETENCIES

During the course of this clinical semester, the student shall be able to:

1. Use oral and written medical communication;
2. Demonstrate knowledge of human structure, function and pathology;
3. Anticipate and provide basic patient care and comfort;
4. Apply the principles of body mechanics;
5. Perform basic mathematical functions;
6. Operate radiographic imaging equipment and accessory devices;
7. Position the patient and imaging system to perform radiographic examinations and procedures;
8. Modify standard procedures to accommodate for patient condition and other variables;
9. Process radiographs;
10. Determine exposure factors to obtain diagnostic quality radiographs with minimum radiation exposure;
11. Adapt exposure factors for various patient conditions, equipment, accessories, and contract media to maintain appropriate radiographic quality;
12. Practice radiation protection for the patient, self and others;
13. Recognize emergency patient conditions and initiate first-aid and basic life-support procedures;
14. Evaluate radiographic images for appropriate positioning and image quality;
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority;
16. Demonstrate knowledge and skill relating to quality assurance; and
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures (Radiologic Sciences).

APPENDIX A
UNDERSTANDING OF CLINICAL RESPONSIBILITIES
AND
STUDENT-HOSPITAL EMPLOYMENT AGREEMENT

APPENDIX A
RAD 222
UNDERSTANDING OF CLINICAL RESPONSIBILITIES

I, _____ hereby acknowledge that I have read and understand the contents of this student handbook and agree to abide by these policies as stated or be subject to University recourse.

1. List the departmental or hospital intercom/phone code for:

a. A patient experiencing cardiac or respiratory arrest.

b. Assistance with a violent patient, family member or visitor.

c. A fire noticed within the department or hospital.

d. A weather emergency or natural disaster (tornado, earthquake, mine explosion, massive auto accident, bomb explosion).

2. List the name(s) of your Clinical Instructor(s).

Student Signature

Date

Supervising Clinical Instructor

Date

*To be kept in the student's file at the program office.

**APPENDIX A
RAD 332
UNDERSTANDING OF CLINICAL RESPONSIBILITIES**

I, _____ hereby acknowledge that I have read and understand the contents of this student handbook and agree to abide by these policies as stated or be subject to University recourse.

1. List the departmental or hospital intercom/phone code for:

a. A patient experiencing cardiac or respiratory arrest.

b. Assistance with a violent patient, family member or visitor.

c. A fire noticed within the department or hospital.

d. A weather emergency or natural disaster (tornado, earthquake, mine explosion, massive auto accident, bomb explosion).

2. List the name(s) of your Clinical Instructor(s).

Student Signature

Date

Supervising Clinical Instructor

Date

*To be kept in the student's file at the program office.

**APPENDIX A
RAD 222**

STUDENT-HOSPITAL EMPLOYMENT AGREEMENT

We, the undersigned, agree to employ _____
only during hours **not** scheduled for clinical education. If the above-named student shows
evidence of working for employment during assigned clinic hours or forging time, he/she will be
expelled from that affiliate as a clinic assignment. This ultimately results in expulsion from the
program.

Student

Date

Clinical Instructor

Date

Chief/Administrative Technologist

Date

SIUC Faculty

Date

(Review in future for potential omission February 2015)

**APPENDIX A
RAD 332**

STUDENT-HOSPITAL EMPLOYMENT AGREEMENT

We, the undersigned, agree to employ _____
only during hours **not** scheduled for clinical education. If the above-named student shows
evidence of working for employment during assigned clinic hours or forging time, he/she will be
expelled from that affiliate as a clinic assignment. This ultimately results in expulsion from the
program.

Student

Date

Clinical Instructor

Date

Chief/Administrative Technologist

Date

SIUC Faculty

Date

(Review in future for potential omission February 2015)

APPENDIX B

PREGNANCY POLICY

SIUC RADIOLGIC SCIENCES PREGNANCY POLICY

The Radiologic Sciences Advisory Committee and the SIUC Radiologic Sciences faculty strongly believe that to limit the pregnant student to non-exposure activities would prevent her from completing the course objectives and thus compromise her education. Furthermore, the Radiologic Sciences Advisory Committee and the SIUC Radiologic Sciences faculty recognize the basic premise of providing the pregnant student with the information to make an informed decision based on her individual needs and preferences. Thus all SIUC Radiologic Sciences students are directed to read the documents noted at the bottom of the previous page.

Finally, the Radiologic Sciences Advisory Committee in conjunction with the SIUC Radiologic Sciences faculty believe it is the responsibility of the pregnant Radiologic Sciences student to advise her Clinical Instructor and Program Clinical Coordinator **voluntarily** and in **writing** of her pregnancy and estimated date of the baby's birth (delivery). Formal, voluntary notification (declaration of pregnancy) is the only means by which the clinical facility and the SIUC Radiologic Sciences program can ensure that the dose to the embryo-fetus is limited during the pregnancy (no to exceed 5 mSv [500 mrem]). **In the absence of the voluntary, written disclosure, a student cannot be considered pregnant!**

The voluntary, written disclosure of her pregnancy and her decision towards the Radiologic Sciences program will be kept in the pregnant student's clinical file, maintained by the Program's respective Clinical Coordinator. Release of such information will occur only upon the written permission of the student in question.

Therefore, prior to attending each clinical semester, each SIUC Radiologic Sciences student is directed to read the following documents, have his/her questions answered to his/her satisfaction, and choose to proceed with his/her Radiologic Sciences education as indicated on the Pregnancy Policy form contained herein.

All SIUC Radiologic Sciences students are directed to read these documents at the respective website.

1. 32 Illinois Administrative Code, Chapter 2, Section 340.280, Subchapters a-e Dose Equivalent to an Embryo/Fetus.
www.ilga.gov/commission/jcar/admincode/032/032003400C02800R.html
2. U. S. Nuclear Regulatory Commission, Regulatory Guide 8.13, Revision 3, June 1999, "Instruction Concerning Prenatal Radiation Exposure."
www.nrc.gov/reading-rm/doc-collections/reg-guides/occupational-health/active/8-13/08-013.pdf
3. U. S. Nuclear Regulatory Commission, Regulatory Guide 8.29, Revision 1, February 1996, "Instruction Concerning Risks from Occupational Exposure."
www.nrc.gov/reading-rm/doc-collections/reg-guides/occupational-health/active/8-29/08-029.pdf

The Radiologic Sciences student has the option to withdraw a previous declaration of pregnancy. It is her responsibility to advise her Clinical Instructor and Program Clinical Coordinator voluntarily and in writing of the change in declaration.

Additionally, the student must return the previously acquired "Baby" dosimeter for proper processing, and for the closing of the "Baby's" dosimeter record.

PREGNANCY POLICY for RADIOLOGIC SCIENCES

The Southern Illinois University at Carbondale (SIUC) Radiologic Sciences faculty in conjunction with the Radiologic Sciences Advisory Committee believe it is the responsibility of the pregnant Diagnostic Radiography student to advise her Clinical Instructor and Program Clinical Coordinator **voluntarily** and in **writing** of her pregnancy and estimated date of her baby’s birth (delivery). Formal, voluntary notification of pregnancy is the only means by which the clinical facility and the University Radiologic Sciences program can ensure that the dose to the embryo-fetus is limited during the pregnancy not to exceed 5 mSv (500 mrem). In the absence of the voluntary, written disclosure, a student cannot be considered pregnant!

To comply with this embryo-fetus dose limit, the pregnant Radiologic Sciences student has been directed to read the following documents:

- a. The 32 Illinois Administrative Code, Chapter II Section 340.280, Subchapter b, Subsections (a) through (e) “Dose Equivalent to an Embryo/Fetus”.
- b. U.S. Nuclear Regulatory Commission Regulatory Guide 8.13, Revision 3, June 1999, “Instruction Concerning Prenatal Radiation Exposure”.
- c. U. S. Nuclear Regulatory Commission, Regultory Guide 8.29, February 1996, "Instruction Concerning Risks from Occupational Exposure."

WAIVER:

I fully understand the contents of these documents, have had my questions answered to my satisfaction, and I choose to proceed with my Radiologic Sciences education as indicated below.

_____ **I have reviewed the pregnancy policy.**

_____ **I am pregnant** and choose to continue my clinical and didactic education without modification or interruption. I accept full responsibility for my own actions and the health of my baby. Furthermore, I absolve, discharge, release, and hold harmless my Clinical site and its Radiology staff, and the Board of Trustees for Southern Illinois University together with its officers and employees (the Radiologic Sciences program and its faculty) for any legal liability, claims, damages or complications that may occur during fetal growth, birth, and postnatal development of my baby.

_____ **I am pregnant** and choose to continue my clinical and didactic education with some modification of my clinical assignments. I will not participate in mobile radiography, fluoroscopic/C-Arm procedures, angiography, Nuclear Medicine, and high-dose rate brachytherapy rotations. A grade of Incomplete “INC” will be given until I have completed all clinical education missed during my pregnancy. The completion of the “INC” may delay my sitting for the ARRT Radiography Exam.

_____ **I am pregnant** and choose to take a leave of absence from the clinical assignments during my pregnancy. A grade of Incomplete “INC” will be given until I have completed all clinical education missed during my pregnancy. The completion of the “INC” may delay my sitting for the ARRT Radiography Exam.

_____ **I am pregnant** and choose to take a leave of absence from the SIUC Radiologic Science program. If I notify the Program Director of my desire to return, I will be offered a position in the next class, the following year.

_____ **I choose to rescind my earlier declaration of pregnancy**, and resume my clinical and didactic education.

I agree to comply with the above stated policy and with my decision as indicated above.

Student Signature

Date

Supervising Clinical Instructor

Date

Respective Radiologic Sciences Clinical Coordinator

Date

APPENDIX C

HOSPITAL POLICY MANUAL

AND

DEPARTMENT ORIENTATION FORM

AND

RECEIPT OF CLINICAL SYLLABUS AND CLINICAL HANDBOOK

AND

UNDERSTANDING OF CLINICAL POLICIES

APPENDIX C-1 - RAD 222 - Radiography Clinic 1

**HOSPITAL POLICY MANUAL
and
DEPARTMENT ORIENTATION FORM**

I, _____ have read and understand the Hospital Policy Manual at _____. I agree to acknowledge and abide by the policies in the manual of _____ Hospital/Clinic. If I do not abide by the policies as stated, I understand that I will be subject to expulsion from the clinical site.

I also have been given a hospital orientation as well as a Radiology Department orientation. The purpose of these orientations is to familiarize myself with the following:

- hazards (fire, electrical, chemical);
- emergency preparedness;
- medical emergencies within the Imaging department;
- HIPAA;
- Standard Precautions;
- Professional clinical attire (dress code);
- locations of various departments throughout the hospital;
- the hierarchy of the Radiology/Imaging Department;
- personal cell phone use in the Radiology/Imaging Department;
- personal use of the computer in Radiology/Imaging Department;
- image processing;
- the patient flow procedure from the beginning paperwork through image filing system and;
- the routine protocols and procedures of this Imaging department.

Finally, I have successfully completed the hospital orientation objectives and the radiology department objectives as these pertain to my assigned clinical site. These objectives are stated in Chapter 3 of the Diagnostic Radiography Clinical Evaluation Manual.

Student Signature

Date

Supervising Clinical Instructor

Date

APPENDIX C-1 – RAD 332 – Radiography Clinic 2

**HOSPITAL POLICY MANUAL
and
DEPARTMENT ORIENTATION FORM**

I, _____ have read and understand the Hospital Policy Manual at _____. I agree to acknowledge and abide by the policies in the manual of _____ Hospital/Clinic. If I do not abide by the policies as stated, I understand that I will be subject to expulsion from the clinical site.

I also have been given a hospital orientation as well as a Radiology Department orientation. The purpose of these orientations is to familiarize myself with the following:

- hazards (fire, electrical, chemical);
- emergency preparedness;
- medical emergencies within the Imaging department;
- HIPAA;
- Standard Precautions;
- professional clinical attire (dress code);
- locations of various departments throughout the hospital;
- the hierarchy of the Radiology/Imaging Department;
- personal cell phone use in the Radiology/Imaging Department;
- personal use of the computer in Radiology/Imaging Department;
- image processing;
- the patient flow procedure from the beginning paperwork through image filing system and;
- the routine protocols and procedures of this Imaging department.

Finally, I have successfully completed the hospital orientation objectives and the radiology department objectives as these pertain to my assigned clinical site. These objectives are stated in Chapter 3 of the Diagnostic Radiography Clinical Evaluation Manual.

Student Signature

Date

Supervising Clinical Instructor

Date

APPENDIX C-2 – RAD 222 – Radiography Clinic 1
RECEIPT OF CLINICAL SYLLABUS AND CLINICAL HANDBOOK
and
UNDERSTANDING OF CLINICAL POLICIES

I have received a copy of the syllabus for the course RAD 222 Radiography Clinic 1.

The instructor has explained the contents and I have an understanding of the policies contained in the syllabus and in the Radiography Clinical Handbook, including but not

limited to:

- Attendance;
- Tardiness;
- Daily clinical hours;
- Clinical absences;
- Clinical make-up days;
- Cell phone use;
- Hospital computer use;
- Radiography Program dress code;
- Competency examinations; and,
- Clinical grading policy

I understand the Program faculty, University administration, and/or Radiography Advisory Committee members may review written assignments and/or clinical competency exams submitted by me.

Student Signature

Date

Print Student Name

APPENDIX C-2 – RAD 332 – Radiography Clinic 2

**RECEIPT OF CLINICAL SYLLABUS AND CLINICAL HANDBOOK
and
UNDERSTANDING OF CLINICAL POLICIES**

I have received a copy of the syllabus for the course RAD 332 Radiography Clinic 2.

The instructor has explained the contents and I have an understanding of the policies contained in the syllabus and in the Radiography Clinical Handbook, including but not limited to:

- Attendance;
- Tardiness;
- Daily clinical hours;
- Clinical absences;
- Clinical make-up days;
- Cell phone use;
- Hospital computer use;
- Radiography Program dress code;
- Competency examinations;
- Advanced modality rotations; and,
- Clinical grading policy

I understand the Program faculty, University administration, and/or Radiography Advisory Committee members may review written assignments and/or clinical competency exams submitted by me.

Student Signature

Date

Print Student Name

APPENDIX D
FORMS FOR CLINICAL EDUCATION

TIME SHEET

Name: _____

Class: _____

Hospital: _____

Legend: P—Present: (8 hrs/day excluding lunch)
Sn—Snow day, no makeup is needed

A—Absent T—Tardy H—Holiday R—Registration/Financial Aid
BL—Bereavement Leave, must document relationship to the deceased

Spring Semester _____

Year 20 _____

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	HRS. PRESENT	HRS. ABSENT	HRS. MADE UP	TOTAL DAYS		
JAN.																																					
FEB.																																					
MARCH																																					
APRIL																																					
MAY																																					

Fall Semester _____

Year 20 _____

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	HRS. PRESENT	HRS. ABSENT	HRS. MADE UP	TOTAL DAYS			
AUG.																																						
SEPT.																																						
OCT.																																						
NOV.																																						
DEC.																																						

Signature of Clinical Supervisor, Clinical Instructor or his/her Designee

CLINICAL EXAMINATION RECORD

Name _____

Hospital _____

Course _____

O = Observed A = Assisted

Date _____

P = Performed T = Total

Category 1	0	A	P	T
Fingers				
Hand				
Wrist				
Foreann				
Elbow				
Humerus				
Shoulder				
Category 2	0	A	P	T
Toes				
Feet				
Ankle				
Lower Leg				
Knee				
Femur				
Hip				
Calcaneus				
Category 3	0	A	P	T
SI Joints				
Pelvis				
Sacrum				
Coccyx				
L. Spine				
T. Spine				
C. Spine				

Category 4	0	A	P	T
Chest				
Abdomen Series				
IVP/w/Tomos				
GI Series				
Esophagram				
Small Bowel Series				
Colon				
Colon/Air				
Oral Gall Bladder				
Category 5	0	A	P	T
Scapula				
Clavicle				
Ribs				
Sternum				
A-C Joints				
S-C Joints				
Category 6	0	A	P	T
Skull				
Facial Bones				
Sinuses				
Nasal Bones				
TMJs				
Mandible				
Mastoids				
Orbits				
Optic Foramea				
Sella Turcica				

Category 7	0	A	P	T
I.V.Cholang				
T-Tube Cholang				
VCU				
PTC/EKG				
Portables				
Surg. Port./C-ARM				
Tomography				
Cysto./Retro Pyelogn				
Hystero.				
Arthrogram				
Venogram				
Mammogram				
Myelogram				
Angiogram/DSA				
Specialities	0	A	P	T
Ultrasound				
Rad.Therapy				
Nuclear Medicine				
C-T Scans				
MRI				

Student Name _____

MR# (Optional) _____

RADIOGRAPHIC EXAM EVALUATION FORM

Exam Performed _____

	POSITION 1 AND COMMENTS		POSITION 2 AND COMMENTS		POSITION 3 AND COMMENTS		POSITION 4 AND COMMENTS	
1. Patient Care								
2. Identification								
3. Positioning								
4. Exposure Factors								
5. Film/Cassette								
6. Radiation Protection								
7. Equipment Manipulation								
8. Other (specify)								
9. Portable and Surgery Skills								
10. Fluoroscopic Skills								
11. Check Box if Film Repeated								

 Evaluator's Signature & Date

**BASIC CRITERIA FOR EVALUATING STUDENT'S
COMPETENCY EXAMS**

1. PATIENT CARE

- a. assists pt.-to room
- b. assists pts. to table, chest stand, etc.
- c. explains procedures, clearly
- d. gives proper moving instructions
- e. proper breathing instructions
- f. has pt properly gowned
- g. other

2. IDENTIFICATION

- a. proper use of marker (R or L)
- b. use of post void, upright, open or closed, etc.
- c. proper pt. info and/or flashed correctly
- d. other

3. POSITIONING

- a. part positioned properly
- b. part center to film correctly
- c. CR not centered to film or part
- d. wrong CR angle
- e. grid or bucky error
- f. other

4. EXPOSURE FACTORS

- a. machine factors; KV, mA. time set correctly
- b. proper use of phototimer (AEC)/back-up time correct photocell (AEC sensor)
- c. proper SID
- d. other

5. FILM/CASSETTE

- a. correct cassette size (CR or DR)
- b. correct placement (crosswise, lengthwise)
- c. proper screens (cassette, if applicable)
- d. proper use of grids
- e. other

6. RADIATION PROTECTION

- a. proper collimation
- b. shields pts. whenever possible
- c. utilize good self-radiation protection
- d. other

7. EQUIPMENT MANIPULATION

- a. manipulate tube adequately
- b. X-ray tube (overhead, upright, decube)
- c. CR or DR image manipulation
- d. other

8. OTHER

- a. questions related to anatomy visualized and/or exposure factors
- b. specify any other problems that are not listed above

**9. PORTABLE AND SURGERY
SKILLS**

- a. proper isolation tech
- b. proper sterile technique
- c. uses image intensifier/fluoro tower properly
- d. uses equipment properly
- e. uses C-arm properly
- f. use of portable equipment
- g. other

10. FLUOROSCOPIC SKILLS

- a. changes spot films
- b. manipulates locks correctly
- c. sets up fluoro equipment correctly
- d. has supplies set up and properly prepared
- e. other

**If desired, you may use the following image/
film grading scale:**

5 = Excellent

4 = Very Good

3 = Good

2 = Fair

1 = Needs major improvement

Please comment as needed.

**SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE
COLLEGE OF APPLIED SCIENCES AND ARTS
RADIOGRAPHY PROGRAM
Monthly Evaluation of Student Personal and Professional Growth**

Student: _____ **Clinical Site:** _____

Instructions: Please read each criterion and its descriptors carefully. Circle the letter of the descriptor that best identifies the student's behavior. More than one descriptor may be circled to better describe a student's growth or professional behavior. Please include any applicable comments.

1. Patient Care/Rapport: *Conveys confidence to patient and works well with patient. Demonstrates courtesy and empathy. Ability to establish good rapport and effective communication with the patient.*
- | | |
|--|--------------------------------------|
| a. occasionally rude/often disinterested | c. shows utmost courtesy and empathy |
| b. indifferent to patient needs | d. polite/attentive |
- Comments: _____
-
2. Judgment: *Exhibits logical thought and good judgment in making decisions, recommendations, and demonstrates respect for confidential patient information.*
- | | |
|---|--|
| a. almost always uses good judgment; asks when in doubt | d. frequently makes faulty decisions |
| b. never needs follow-up or correction | e. unable to logically think through an exam |
| c. occasionally makes faulty decisions | |
- Comments: _____
-
3. Personal Appearance/Attire: *Radiography clinical attire should be worn as stipulated in the Radiography Student Handbook (i.e., Maroon Scrubs or RADS polo shirt, dark/khaki slacks, white/dark shoes, markers, film badge, proper name pin/hospital ID badge, no gum chewing, etc.).*
- | | |
|--|--|
| a. almost always neat clean, and well-groomed | c. seldom neat, clean, or well-groomed |
| b. occasionally unkempt or poor personal hygiene | |
- Comments: _____
-
4. Organization/Efficiency of Work: *Ability to evaluate needs of a technical situation before procedure starts, and demonstrates speed and accuracy in performing clinical exams/duties.*
- | | |
|---|--|
| a. exceptionally fast; facilitates patient flow | d. rather slow; hinders patient flow |
| b. always slow; always hinders patient flow | e. steady pace; patient flow is smooth |
| c. fairly steady; occasionally hinders flow | |
- Comments: _____
-
5. Technical Knowledge/Application: *Degree to which student applies knowledge of positioning and technique to produce desirable (diagnostically acceptable) radiographs.*
- | | |
|--|---|
| a. limited; often needs major correction/frequent errors | d. very good, except in difficult cases |
| b. unacceptable; unable to demonstrate previously learned skills | e. good/fair; usually accurate/few errors |
| c. superior; consistently accurate and competent | |
- Comments: _____
-
6. Quality of Work: *Shows evidence of proper radiographic image quality and the absence of/or minimal repeat radiographs. Demonstrates proper use of AEC, CR, DR, collimation, grids, lead shielding, etc.*
- | | |
|--|--|
| a. acceptable with level of learning; needs some assistance | d. learns from own mistakes; doesn't repeat errors |
| b. inconsistent; does well, then makes many careless errors | |
| c. above average with level of learning; seldom needs assistance | e. constantly makes careless errors |
- Comments: _____
-

7. Cooperation/Work Attitude: *Demonstrates a cooperative, courteous attitude towards co-workers, considers the interests and feelings of others. Is receptive to suggestions or corrections, exercises self-control, and demonstrates interest in assignments.*
- a. passes the blame/finds excuses; not good team member
 - b. occasional conflicts with technical staff/physicians
 - c. usually cooperative/few complaints
 - d. enthusiastic, considerate, and helpful
 - e. resentful of authority/correction
- Comments: _____
-
8. Initiative: *Amount of motivation and/or enthusiasm expressed by a willingness to perform difficult examinations and/or perform exams already Comped out, independently, and without being told to do so. Includes the performance of routine or simple radiographic exams without being told to do so.*
- a. does assigned work
 - b. seeks more work
 - c. needs occasional prodding
 - d. indifferent, avoids work
- Comments: _____
-
9. Dependability: *Reliance on student to complete all technical procedures begun and to remain in the assigned work area according to the department schedule.*
- a. neglects work; wanders
 - b. very thorough; conscientious
 - c. doesn't follow through
 - d. sometimes needs follow-up
- Comments: _____
-
10. Punctuality: *Extent to which student is present at clinical site without absence and/or tardiness.*
- a. often late/absent; doesn't call-in
 - b. rarely late/absent; stays later to make-up time
 - c. always on time; stays late to finish work
- Comments: _____
-
11. Care of Equipment: *Assigned examination room kept clean, cassettes well stocked, fresh linen, fresh tape on markers, etc.*
- a. always careful; concerned with maintaining equipment/room
 - b. occasionally misuses equipment; room sometimes messy
 - c. is careful with equipment; room usually neat, clean
 - d. frequently misuses equipment/facilities
 - e. careless and wasteful; room always messy
- Comments: _____
-
12. Overall Impression of Student's Progress: *Related to the clinical objectives discussed in the Radiography Student Handbook; RAD 222 (First Clinical) and RAD 332 (Second Clinical).*
- a. good; needs more practice with (specify)
 - b. unsatisfactory; barely has any concepts of the field
 - c. very good; student functions with little supervision
 - d. outstanding; student functions on his/her own
 - e. passable; fulfills minimal requirements
- Comments: _____
-

Clinical Instructor's Signature _____ Date _____

I have reviewed this evaluation with the Clinical Instructor.

Student Comments: _____

Student Signature _____ Date _____

APPENDIX E

SPECIAL ROTATION OBJECTIVES
(Advanced Modality Rotation Objectives)

APPENDIX E
ANGIOGRAPHY & SPECIAL PROCEDURE OBJECTIVES
CATEGORY 8--COMPETENCY

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

Upon completion of this rotation, the student shall be able to:

1. Describe the gowning and gloving to maintain a sterile field.
2. Describe the differences between disinfection, aseptic technique, and sterilization.
3. List the sterile apparel to be worn during an invasive procedure.
4. Maintain a sterile field, with 100% accuracy, in setting up a sterile tray for an angiogram.
5. Maintain a sterile field with 100% accuracy in loading the automatic injector.
6. List and describe the steps for regional site preparation (entry site preparation), for an invasive or special procedure.
7. Describe 4 uses of catheters.
8. Describe the advantages and disadvantages of reusable and disposable supplies.
9. Correctly use the digital imaging system at this facility.
10. Distinguish between acceptable and unacceptable image densities.
11. Define the following terms related to interventional procedures.

a. image subtraction	g. intraluminal stenting
b. Seldinger technique	h. fibrinolysis
c. pulse oximetry	i. atherectomy
d. angiography	i. venography
e. embolization	k. vasodilator
f. angioplasty	l. ablation
12. Of the following nonvascular interventional procedures, list the procedures perform in your department.
 - a. needle biopsy
 - (1) bone
 - (2) lung
 - (3) abdomen
 - (4) abscessed regions
 - (5) biliary system
 - (6) genitourinary system
 - b. extracorporeal shock wave lithotripsy (ESWL)
 - c. endoscopic retrograde cholangiopancreatography (ERCP)
 - d. percutaneous needle puncture for drainage

- e. percutaneous calculi removal
 - (1) kidney
 - (2) biliary system
- 13. Describe the difference between the construction an artery and the construction of a vein.
- 14. Explain the indications and contraindications for nonionic iodinated LOCM use in the interventional suite. (LOCM = low osmolarity contrast medium)
- 15. Discuss the purposes of the following tests:
 - a. activated partial thromboplastin time (APTT)
 - b. partial thromboplastin time (PTT)
 - c. prothrombin time (PT)
 - d. glomerular filtration rate (GFR)
 - e. hematocrit
 - f. creatinine
 - g. BUN
- 16. Identify the specific complications related to angiographic, interventional or special procedures, including:
 - a. transient ischemic attack (TIA)
 - b. stroke
 - c. embolism, solid and air
 - d. thrombosis
 - e. myocardial infarction (MI)
 - f. congestive heart failure (CHF)
 - g. cardiac arrhythmia
 - h. vasovagal response
 - i. anaphylaxis
 - j. hypotensive episode
 - k. hypertensive episode
 - l. renal failure
 - m. diabetic crisis
 - n. paralysis
- 17. Identify 3 indications and 2-3 contraindications for:
 - a. Hysterosalpingography
 - b. Myelography
 - c. Arthrography
 - d. Sialography
- 18. List the type of contrast medium (contrast agent) used for:
 - a. Hysterosalpingography
 - b. Myelography
 - c. Arthrography
 - d. Sialography
- 19. List the post exam patient care procedures at your facility for.
 - a. Hysterosalpingography
 - b. Myelography
 - c. Arthrography
 - d. Sialography

**ANGIOGRAPHY & SPECIAL PROCEDURES
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

	A	F	S	N	Comments
1. The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The student's appearance was professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. The student showed concern for the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. The student asked questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The student participated in activities with the equipment and in patient care as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

**COMPUTED TOMOGRAPHY (CT) OBJECTIVES
CATEGORY 8 – COMPETENCY**

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

Upon completion of this rotation, the student shall be able to:

1. At your facility, list the manufacturer, model of the CT scanner, x-ray tube and detector system (e.g., multi-channel detectors) .

2. Prepare a chart listing the following body parts and include: (OK to use a spreadsheet)
 - (1) gantry angle
 - (a) brain/face: if OML or IOML is not perpendicular to table, then how much is gantry angled? Give an example.
 - (b) bony vertebral column: list specific gantry angle for Cervical, Thoracic & Lumbar spine imaging.
 - (2) contrast agent used: List specific brand name and amount injected
 - (3) scan range (from anatomical part "x" to anatomical part "y")
 - (4) patient preparation
 - (5) imaging parameters (kVp, mA, time, dose reduction technique)

a. brain	d. abdomen
b. bony head/face	e. pelvis
c. bony vertebral column	f. chest/heart

3. On the computer monitor, identify the following anatomic structures, in the head, as visualized using an axial (transverse) scanning technique.
 - a. bone
 - b. gray matter
 - c. white matter
 - d. lateral ventricles, including frontal horns, occipital horns & temporal horns.
 - e. Circle of Willis, including the following arteries:

(1) internal carotids	(5) anterior communicating artery
(2) anterior cerebrals	(6) posterior communicating arteries
(3) middle cerebrals	(7) vertebral arteries
(4) posterior cerebrals	(8) basilar artery
 - f. cerebrum
 - g. cerebellum
 - h. brain stem
 - i. tentorium cerebella

4. Explain why a CT scan provides more diagnostic information than an MRI scan. (Explain it in terms of bony anatomy vs. soft-tissue anatomy).

5. On the computer monitor, distinguish between the following abdominal and pelvic organs.
- | | |
|--------------------|----------------------------------|
| a. psoas muscles | i. diaphragm, including the crus |
| b. IVC | j. liver/gall bladder |
| c. abdominal aorta | k. stomach |
| d. ureters | l. pancreas |
| e. kidneys | m. colon |
| f. urinary bladder | n. lumbar spine |
| g. adrenal glands | o. small bowel |
| h. spleen | p. uterus/prostate gland |
6. Prior to injecting the patient with a contrast agent, explain the rationale for including the following information in the patient's clinical history data (medical chart).
- previous contrast agent reaction
 - contrast agent related allergies
 - BUN (blood, urea nitrogen)
 - Creatine
 - glomerular filtration rate (GFR)
 - list the criteria for requesting the GFR on a patients
 - what kidney function does GFR describe that BUN & Creatine doesn't?
7. The use of an intravenous iodinated contrast agent is contraindicated in patients with any the following conditions. For each condition, explain what happens to the patient if he is given and intravenous injection of 100 ml of a nonionic low osmolality iodinated contrast agent. Be specific with the reaction.
- | | |
|--|------------------------|
| a. asthma | e. heart disease |
| b. diabetes | f. hepatorenal disease |
| c. multiple myeloma | g. sickle cell anemia |
| d. use of beta blocker for hypertension or heart disease | |

**CT SCANNING OBJECTIVES
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

		A	F	S	N	Comments
1.	The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The student's appearance was professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	The student showed concern for the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	The student asked questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	The student participated in activities with the equipment and in patient care as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

**MAGNETIC RESONANCE IMAGING (MRI) OBJECTIVES
CATEGORY 8--COMPETENCY**

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

Upon completion of this rotation, the student shall be able to:

1. List the manufacturer, model, magnet type and magnetic field strength of the MRI scanner(s) used at this facility.
2. Explain the differences in the following types of magnets, used in MRI.
 - a. resistive magnet
 - b. permanent magnet
 - c. superconducting magnet
3. Define these terms related to magnetic resonance imaging (MRI).

a. Tesla/Gauss	e. relaxation time (TR)
b. main/primary magnetic field	f. Larmor frequency
c. gradient magnetic field	g. echo time (TE)
d. spin echo vs. gradient echo pulse sequence	h. magnetic shielding
4. What is the specific gyromagnetic ratio for hydrogen?
5. Explain the basis for the 5 Gauss line.
6. List the types of receiver coils used at this facility.
7. List and discuss the patient care precautions and contraindications that are necessary when MRI is used.
8. On the computer monitor, locate these anatomic structures, in the brain/spinal cord, as visualized when using a midline sagittal (midline longitudinal) imaging technique:

a. bone	f. cerebrospinal fluid (CSF)
b. gray matter	g. blood
c. white matter	h. cerebrum
d. intervertebral disks & vertebrae	i. cerebellum
e. fat/subcutaneous fat	j. brain stem
f. tentorium cerebelli	

9. Prepare a chart listing the most common pulse sequences used for the body areas listed below. Include the following imaging parameters: (OK to use a spreadsheet)

- | | |
|---------------------|------------------------------------|
| (1) TR | (5) gradient echo pulse sequence |
| (2) TE | (6) contrast medium used |
| (3) slice thickness | (7) type of RF receiving coil used |
| (4) imaging gap | (8) contrast agent injection rate |

- a. routine brain
- b. spinal cord
- c. abdomen
- d. pelvis
- e. musculoskeletal system

MAGNETIC RESONANCE (MR) SAFETY SCREENING PROTOCOL
For the RAD 222 Student

WARNING:

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

While assisting in the MR environment, should an SIUC Radiologic Sciences student feel any intolerable pulling, unnatural heat or burning sensation within himself/herself then the student must leave the MR environment as quickly as possible, to prevent personal injury.

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 known MR hazardous devices:

- Aneurysm clip(s)
- Cardiac pacemaker
- Implanted cardioverter defibrillator (ICD)
- Electronic implant or device
- Magnetically-activated implant or device
- Neurostimulation system
- Spinal cord stimulator
- Cochlear implant or implanted hearing aid
- Insulin or infusion pump
- Implanted drug infusion device
- Any type of prosthesis, implant or tattoo
- Artificial or prosthetic limb
- Any metallic fragment, foreign body, or piercing
- Any external or internal metallic object
- Hearing aid
- Implanted spine straightening rods
- Other implant_____
- Other device_____

Please indicate below if you have not specified any of the above:

- I have not received any implants, devices, or objects to the best of my knowledge

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.

Student Signature

Date

MAGNETIC RESONANCE (MR) SAFETY SCREENING PROTOCOL
For the RAD 332 Student

WARNING:

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

While assisting in the MR environment, should an SIUC Radiologic Sciences student feel any intolerable pulling, unnatural heat or burning sensation within himself/herself then the student must leave the MR environment as quickly as possible, to prevent personal injury.

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 known MR hazardous devices:

- Aneurysm clip(s)
- Cardiac pacemaker
- Implanted cardioverter defibrillator (ICD)
- Electronic implant or device
- Magnetically-activated implant or device
- Neurostimulation system
- Spinal cord stimulator
- Cochlear implant or implanted hearing aid
- Insulin or infusion pump
- Implanted drug infusion device
- Any type of prosthesis, implant or tattoo
- Artificial or prosthetic limb
- Any metallic fragment, foreign body, or piercing
- Any external or internal metallic object
- Hearing aid
- Implanted spine straightening rods
- Other implant_____
- Other device_____

Please indicate below if you have not specified any of the above:

- I have not received any implants, devices, or objects to the best of my knowledge

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.

Student Signature

Date

**MRI SCANNING OBJECTIVES
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

	A	F	S	N	Comments
1. The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The student's appearance was professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. The student showed concern for the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. The student asked questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The student participated in activities with the equipment and in patient care as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

**NUCLEAR MEDICINE OBJECTIVES
CATEGORY 8—COMPETENCY**

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

1. Name four different radionuclides, listing each physical half-life and how each is used in nuclear medicine studies.
2. Describe the radiation protection procedures used when handling radionuclides as well as how to limit your exposure to radiation.
3. Explain what the following pieces of equipment are and how they are used in nuclear medicine.
 - a. Dose calibrator
 - b. Geiger-Muller counter
4. What is Tc99-m? What is the name of its parent radionuclide?
5. List 5 Tc99-m radiopharmaceuticals agents and their application.
6. Describe how physical and biological half-lives play a role in the remove of Radionuclides from the body.
7. Name three differences between nuclear medicine imaging and x-rays.
8. Prepare a chart that includes: (OK to use a spreadsheet).
 - a. Identify one purpose for each of the following studies:

(1) heart	(4) lung	(7) gallbladder
(2) bone	(5) liver	(8) stomach
(3) kidney	(6) thyroid	(9) brain
 - b. Given the organs listed above (8a, items 1-9):
 - (1) List 2-3 pathologies of this organ diagnosed by nuclear medicine.
 - (2) State the radionuclide and biological tag (carrier molecule) used.
 - (3) List the patient preparation for each exam.

	Purpose	Pathologies	Bio-tag	Patient Prep
Heart				
Bone				
Kidney				
Lung				
Liver				
Thyroid				
Gallbladder				
Stomach				
Brain				

**NUCLEAR MEDICINE
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

		A	F	S	N	Comments
1.	The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The student conforms to the professional dress code of the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	The student showed concern for the wellbeing of the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	The student asked questions concerning patient imaging procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	The student participated in patient care or other duties as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

**RADIATION THERAPY OBJECTIVES
CATEGORY 8--COMPETENCY**

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

Upon completion of this rotation, the student shall be able to:

1. Describe how a treatment field is determined.
2. Identify how a treatment dose is determined.
3. What is the purpose of dose fractionation?
4. Identify the source of radiation used for the most common cancers treated at this facility.
5. Define the following terms related to radiation therapy.
 - a. bolus
 - b. blocks
 - c. wedges
 - d. filters
 - e. cerrobend
 - f. multileaf collimation (MCL)
 - g. image guided radiation therapy (IGRT)
 - h. intensity-modulated radiation therapy (IMRT)
 - i. POP field
 - j. Four-field box
6. Explain the need for frequent port films or on board imaging (electronic portal imaging devices (EPID)).
7. Explain the need for the patient restraint devices used in radiation therapy.
8. Describe the radiation protection procedures used in radiation therapy at this facility.
9. List 2-3 local or systemic reactions to radiation therapy treatments of the following areas.
 - a. head
 - b. neck
 - c. lung
 - d. pelvis
 - e. abdomen
 - f. breast
 - g. chest
10. Identify/describe the different treatment aids that are used in radiation therapy. i.e wedges, MLC, positioning devices, immobilization devices, etc.
11. Explain the difference between a positioning device and an immobilization device.

**RADIATION THERAPY
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

	A	F	S	N	Comments
1. The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The student conforms to the professional dress code of the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. The student showed concern for the wellbeing of the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. The student asked questions concerning patient treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The student participated in patient care or other duties as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

**SONOGRAPHY OBJECTIVES
CATEGORY 8--COMPETENCY**

Neatly type (word-process) all answers and submit to your SIUC faculty. The use of the Bushong physics book, Adler/Carlton physics book, Merrill's Atlas volume 3, and the student's patient care book is strongly encouraged.

Upon completion of this rotation, the student shall know or be able to:

1. Define sonography.
2. How does sonography differ from radiography? List three pros and cons.
3. Briefly explain the function of a transducer and its use in sonography.
4. Discuss the need for the use of acoustic coupling gel.
5. List three types of exams/body parts which would require the use of a high frequency transducer and briefly explain why.
6. There are many areas a sonographer may specialize or become registered in. List five and briefly describe each.
7. Define the following sonographic terms. Give two anatomical or structural examples of each (For example: a simple cyst is anechoic)
 - a. Anechoic
 - b. Echogenic
 - c. Hyperechoic
 - d. Homogeneous
 - e. Heterogeneous
 - f. Isoechoic
8. List the patient preps for the following exams and explain the purpose for each.
 - a. Abdomen Complete
 - b. Thyroid
 - c. Renal Artery
 - d. Pelvis (Transabdominal)
 - e. Pelvis (Transvaginal)
 - f. OB 1st Trimester
 - g. OB 2nd/3rd Trimester
9. A patient presents in your department for an Upper GI and a Gallbladder Ultrasound. Which study should be performed first? Why?
10. Briefly explain the main differences between 2D, 3D, and 4D ultrasound.

**SONOGRAPHY
STUDENT EVALUATION**

A = Always F = Frequently S = Sometimes N = Never

Objective Test Score _____

	A	F	S	N	Comments
1. The student was on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The student's appearance was professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. The student showed concern for the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. The student asked questions concerning the scanning techniques used to examine the patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The student participated in patient care or other duties as directed by the instructor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The student satisfactorily answered the objectives for this unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student

Evaluator

Date

APPENDIX F
CLINICAL GRADING PROCESS

CLINICAL GRADING PROCESS

CHECK TIME SHEET

1. Are all tardies and/or absences made up?
2. Deduct 5 points for each late arrival from final clinical grade.
3. If three to four (3-4) days are missed, AND there is no evidence of any clinical day make-up schedule, then decrease final clinical grade by 10 points.
4. If five to seven (5-7) days are missed AND there is no evidence of any clinical day make-up schedule, then; decrease final clinical grade by 15 points.
5. If **more than** seven (7) days are missed AND there is no evidence of any clinical day make-up schedule, then; decrease final clinical grade by 20 points.
6. Is Time Sheet signed by Clinical Instructor?

USING APPROPRIATE CLINICAL GRADING SHEET

1. On the RAD 222/RAD 332 Competency Check List, inspect for proper recording of the exam date, Pt or SIM, and the initials of the RT who Comped the student.
2. Determine grade for **each exam**; both Mandatory (“M”) exams, Elective (“E”) exams & Program Required exams (PR; second clinical semester).
3. Place grade for each exam just to the right of the exam name on Grading Sheet.
4. Take each exam comp grade and determine **average grade for all comps** and place grade in appropriate area.
5. Tally total comps completed and place number in appropriate blank.
6. Note the number of comps not completed below the required minimum and fill in appropriate blank if necessary. Example: Student completes 44 exams, but is missing 1 “M” exam in Category 4. Calculate average grade for all comps using 45 total exams.

BEHAVIOR RATING

1. Are there at least two to three (2-3) Behavior Ratings?
2. Are all Behavior Ratings signed by both student and Clinical Instructor?
3. Using Behavior Rating code sheet, determine grade for each of the 2-3+ Behavior Ratings and place average grade in appropriate blank on Clinical Grading Sheet.
4. Determine grade and make any adjustments for time missed if necessary and place final grade in appropriate blank.

**RAD 222—SPRING CLINICAL SEMESTER
GRADING SHEET**

Category 1 (5-7 different “M” exams)

- A. Adult Trauma Upper Extremity M
- B. Bone Age (Hand & Wrist, only) E
- C. Child Trauma Upper Extremity E
- D. Elbow c/s Coyle T. E. Position M
- E. Finger(s) M
- F. Forearm M
- G. Hand M
- H. Humerus M
- I. Shoulder: Int. & Ext. rot. only M
 - 1. with Scapular “Y” M
 - 2. with Axial Shoulder M
- J. Thumb M
- K. Trauma Shoulder M
- L. Wrist c/s Scaphoid Image M

Category 2 (5-7 different “M” exams)

- A. Adult Trauma Lower Extremity M
- B. Ankle M
- C. Bone Age (Hand, Wrist, Hip) E
- D. Calcaneus (Os Calcis/Heel) E
- E. Child Trauma Lower Extremity E
- F. Femur M
- G. Foot M
- H. Hip
 - 1. AP w/Frog-leg Lateral M
 - 2. AP w/X-Table Lateral M
- I. Knee c/s Sunrise Patella M
- J. Long Bone Measurements E
- K. Lower Leg (Tib-Fib) M
- L. Patella E
- M. Toe(s) E
- N. Wgt-Bearing Foot E
- O. Wgt-Bearing Hip E
- P. Wgt-Bearing Knee E

Category 3 (4-5 different “M” exams)

- A. Cervical Spine c/s Swimmers M
- B. Coccyx E
- C. Lumbar Spine M
- D. Pelvis M
- E. S-I Joints E
- F. Sacrum E
- G. Scoliosis Series E
- H. Skeletal/Bone Survey (for Mets) E
- I. Thoracic Spine c/s Swimmers M
- J. Trauma Cervical Sp (AP, X-Table

Lateral c/s Odontoid) M

Category 4 (5-6 different “M” exams)

- A. Adult Chest M
- B. Child/Infant Chest M
- C. Wheelchair or Stretcher Chest M
- D. Abd Series:KUB+Erect c/s CXR M
- E. IVP c/s tomos E
- F. Upper GI c/s Air Contrast M
- G. Esophagram/Ba Swallow E
- H. Small Bowel/Enteroclysis E
- I. Supine Recumbent KUB M
- J. Colon c/s Air Contrast E
- K. Soft Tissue Neck c/s Contrast E
- L. Child Abd Series c/s CXR E
- M. Mod. BaSw for Pathology E
- N. Child/Infant Sup. Rec. KUB E
- O. Decub/Lordotic Chest-1 Image E
- P. Decub/Erect Abd.-1 Image E

Category 5 (0-1 different “M” exams)

- A. A-C Joints E
- B. Clavicle E
- C. Ribs c/s Erect CXR M
- D. Scapula E
- E. Sternum E
- F. S-C Joints E

Category 6 (0-2 different “E” exams)

- A. Skull E
- B. Sinuses E
- C. Facial Bones c/s Zygoma E
- D. Nasal Bones E
- E. TMJs c/s tomos E
- F. Orbits (Bony or FB) E
- G. Mandible/Panorex Mandible E
- H. Mastoids E
- I. Optic Foramen E
- J. Sella Turcica E
- K. Zygomatic Arches E

Category 7 (1-4 different “M” exams)

- A. **Angiogram c/s Intervention**
 - 1. Cerebral E
 - 2. Renal/Systemic E
 - 3. Aortic Arch/Cath Lab E
 - 4. Femoral/A-I-F run off E

- B. Arthrogram**
 - 1. Ankle/Knee/Hip E
 - 2. Elbow/Wrist E
 - 3. Shoulder E
 - 4. TMJs E
- C. Bone Densitometry**
 - 1. Unit Calibration, PLUS:
 - 2. Hip & Lumbar Spine c/s E
 - 3. Forearm & Wrist E
- D. Cysto/Retro. Pyelogram E
- E. ERCP/Lithotripsy E
- F. Fistulogram E
- G. Hysterosalpingogram (HSG) E
- H. IV Cholangiogram c/s tomos E
- I. Myelography E
- J. ECG (EKG)-12 Lead E
- K. Post-Mortem Exam in R/F room E
- L. Sialogram E
- M. T-Tube Cholang./PTC E
- N. Tomography (not kidneys) E
- O. Voiding Cysto (VCU/VCUG) E
- P. Venogram (c/s Intervention)**
 - 1. Periperal (Arm/Leg) E
 - 2. Renal E
 - 3. Lumbar E
 - 4. IVC E
- Q. Portables/Recovery**
 - 1. Head work E
 - 2. Spine work E
 - 3. Extremity M
 - 4. Abdomen M
 - 5. Chest M
 - 6. Child Port. CXR E
 - 7. Child Port. Abd. E
 - 8. Child Port. Extremity E
 - 9. Post-Mortem Exam in Morgue E
- R. Surgery Portables**
 - 1. Colonoscopy/Endoscopy E
 - 2. Fx Reducation (ORIF) E
 - 3. Laminectomy E
 - 4. OR Cholang./Chole Lap E
 - 5. Hip Replacement/Pinning E
 - 6. Pacemaker/PortaCath/PICC Line/Swan-Ganz/CVP Line E
 - 7. Declot Angiogram E
 - 8. Epidural Facet Injection E
 - 9. Vertebroplasty E
- S. C-Arm Work in OR**
 - 1. Colonoscopy/Endoscopy E
 - 2. Fx Reducation (ORIF) M
 - 3. Laminectomy E
 - 4. OR Cholang./Chole Lap E
 - 5. Hip Replacement/Pinning E
 - 6. Pacemaker/PortaCath/PICC Line/Swan-Ganz/CVP Line E
 - 7. Declot Angiogram E
 - 8. Epidural Facet Injection E
 - 9. Vertebroplasty E
- T. Vertebroplasty in R/F room E**
- U. Lumbar Puncture in R/F room E**
- V. PICC Line Insertion in R/F room E**

- A. Film badge & holder received on _____ (date)
- B. Number of Comps completed _____
- C. Comps not completed of required minimum of 29 _____
- D. Average grade for 29 or more Comps _____ x 0.6 = _____
- E. Average grade for Behavior Ratings _____ x 0.4 = _____
- F. Any adjustments for Comps not completed, Initiative, Chronic Tardiness, Chronic Absenteeism or Clinical Time not made-up Initiative/Attendance Adjustment Scale: _____

29 Comps Completed (average initiative displayed) = C (-20 pts.)
Specifically completing 21 "M" Comps & 8 "E" Comps

33 Comps Completed (above average initiative) = B (-10 pts.)
Specifically completing 23 "M" Comps & 10 "E" Comps

38 or more Comps Completed (superior initiative displayed) = A (-0 pts.)
Specifically completing 25 "M" Comps & at least 13 "E" Comps

- G. Final grade (add D, E, and F) _____

**RAD 332—Radiography Clinic II - FALL CLINICAL SEMESTER
GRADING SHEET**

Category 1 (Finish “M” Comps)

- A. Adult Trauma Upper Extremity M
- B. Bone Age (Hand & Wrist, only) E
- C. Child Trauma Upper Extremity E
- D. Elbow c/s Coyle T. E. Image M
- E. Finger(s) M
- F. Forearm M
- G. Hand M
- F. Humerus M
- H. Shoulder: Int. & Ext. rot. only M
 - 1. with Scapular “Y” M
 - 2. with Axial Shoulder M
- I. Thumb M
- J. Trauma Shoulder M
- K. Wrist c/s Scaphoid Image M

Category 2 (Finish “M” Comps)

- A. Adult Trauma Lower Extremity M
- B. Ankle M
- C. Bone Age (Hand, Wrist, Hip) E
- D. Calcaneus (Os Calcis/Heel) E
- E. Child Trauma Lower Extrem. E
- F. Femur M
- G. Foot M
- H. Hip
 - 1. AP w/Frog-leg lateral M
 - 2. AP w/X-Table lateral M
- I. Knee c/s Sunrise Patella M
- J. Long Bone Measurements E
- K. Lower Leg (Tib-Fib) M
- L. Patella E
- M. Toe(s) E
- N. Wgt-Bearing Foot/Feet E
- O. Wgt-Bearing Hip E
- P. Wgt-Bearing Knee(s) E

Category 3 (Finish “M” Comps)

- A. Cervical Spine c/s Swimmers M
- B. Coccyx E
- C. Lumbar Spine M
- D. Pelvis M
- E. S-I Joints E

- F. Sacrum E
- G. Scoliosis Series E
- H. Skeletal/Bone Survey (for Mets) E
- I. Thoracic Spine c/s Swimmers M
- J. Trauma Cervical Sp (X-Table Lat. c/s AP & Odontoid) M

Category 4 (Finish “M” Comps)

- A. Adult Chest M
- B. Child/Infant Chest M
- C. Wheelchair or Stretcher Chest M
- D. Abd Series: KUB+Erect c/s CXR M
- E. Supine Recumbent KUB M
- F. Upper GI c/s Air Contrast M
- G. Child Abd. Series c/s Erect CXR E
- H. Child/Infant Sup. Rec. ABD/KUB E
- I. Colon c/s Air Contrast E
- J. Decube Abdomen only E
- K. Decube CXR only E
- L. Esophagram/Ba Swallow E
- M. IVP c/s tomos E
- N. Mod. BaSW for Speech Path. E
- O. Small Bowel/Enteroclysis E
- P. Soft Tissue Neck c/s Contrast E

Category 5 (Finish “M” Comps)

- A. A-C Joints E
- B. Clavicle E
- C. Ribs c/s Erect CXR M
- D. Scapula E
- E. Sternum E
- F. S-C Joints E

Category 6 (0-2 different “E” exams)

- A. Skull E
- B. Sinuses E
- C. Facial Bones c/s Zygoma E
- D. Nasal Bones E
- E. TMJs c/s tomos E
- F. Orbits (Bony or FB) E
- G. Mandible/Panorex for Mandible E
- H. Mastoids E

- I. Optic Foramen E
- J. Sella Turcica E
- K. Zygomatic Arches E

Category 7 (Finish “M” Comps)

- A. Angiogram c/s Intervention**
 - 1. Cerebral E
 - 2. Renal/Systemic E
 - 3. Coronary/Cath Lab E
 - 4. Femoral/A-I-F run off E
 - 5. Aortic Arch E
- B. Arthrogram**
 - 1. Ankle E
 - 2. Elbow E
 - 3. Hip E
 - 4. Knee E
 - 5. Shoulder E
 - 6. TMJs E
 - 7. Wrist E
- C. Bone Densitometry**
 - 1. Unit Calibration, PLUS:
 - 2. Hip & Lumbar Spine c/s E
 - 3. Forearm & Wrist E
- D. Cysto/Retro. Pyelogram E
- E. ERCP/Lithotripsy E
- F. Fistulogram E
- G. Hysterosalpingogram (HSG) E
- H. IV Cholangiogram c/s tomos E
- I. Lumbar Puncture in R/F room E
- J. Myelography
 - 1. Cervical Myelogram E
 - 2. Thoracic Myelogram E
 - 3. Lumbar Myelogram E
- K. ECG (EKG)-12 Lead E
- L. Sialogram E
- M. T-Tube Cholang./PTC E
- N. Tomography (not kidneys) E
- O. Voiding Cysto (VCU/VCUG) E
- P. Venogram (c/s Intervention)**
 - 1. Periperal (Arm/Leg) E
 - 2. Renal E
 - 3. Lumbar E
 - 4. IVC E
- Q. Portables/Recovery**
 - 1. Head work E
 - 2. Spine work E

- 3. Extremity M
- 4. Abdomen M
- 5. Chest M
- 6. Child Port. CXR E
- 7. Child Port. Abd. E
- 8. Child Port. Extremity E
- 9. Post-Mortem Exam in Morgue E

- R. Surgery Portables**
 - 1. Colonoscopy/Endoscopy E
 - 2. Fx Reducation (ORIF) E
 - 3. Laminectomy E
 - 4. OR Cholang./Chole Lap E
 - 5. Hip Replacement/Pinning E
 - 6. Pacemaker/PortaCath/PICC/Swan-Ganz/CVP Line E
 - 7. Declot Angiogram E
 - 8. Epidural Facet Injection E
 - 9. Vertebroplasty
- S. C-Arm Work in OR**
 - 1. Colonoscopy/Endoscopy E
 - 2. Fx Reducation (ORIF) M
 - 3. Laminectomy E
 - 4. OR Cholang./Chole Lap E
 - 5. Hip Replacement/Pinning E
 - 6. Pacemaker/PortaCath/PICC/Swan-Ganz/CVP Line E
 - 7. Declot Angiogram E
 - 8. Epidural Facet Injection E
 - 9. Vertebroplasty E
- T. Vertebroplasty in R/F room E**
- U. Lumbar Puncture in R/F room E**
- V. Post-Mortem Exam in R/F room E**
- W. PICC Line Insert in R/F room E**

Category 8 (min. 4 Program Required Rotations (PR))

- | | |
|---|-------------------------|
| A. Angiography/Internvent. Procedures E | D. Nuclear Medicine E |
| B. Computed Tomography (CT) PR | E. Radiation Therapy PR |
| C. Magnetic Resonance Imaging (MRI) PR | F. Sonography PR |

- A. **Film badge & holder received on** _____ (date)
- B. **Number of Comps completed** _____
- C. **Comps not completed of required minimum of 21** _____
- D. **Average grade for 21 or more Comps** _____ x 0.5 = _____
- E. **Average grade for Behavior Ratings** _____ x 0.5 = _____
- F. **Any adjustments for Comps not completed, Initiative, Chronic Tardiness, Chronic Absenteeism or Clinical Time not made-up** _____

Initiative/Absenteeism Adjustment Scale:

- 21 Comps Completed (average initiative displayed) = C (-20 pts.)**
- 22-24 Comps Completed (above average initiative displayed) = B (-10 pts.)**
- 25 or more Comps Completed (superior initiative displayed) = A (-0 pts.)**

- G. **Final grade (add D, E, and F)** _____

APPENDIX G

RADIOGRAPHY STUDENT HEALTH RECORD

RADIOLOGIC SCIENCES STUDENT HEALTH RECORD
 College of Applied Sciences and Arts
 Southern Illinois University Carbondale

Name _____

Address Last First MI

Street City State Zip code

Date of Birth (DOB) _____ Local/Cell Phone # _____

Name and address of person to contact in an emergency:

Name of Emergency Contact Person Relationship to Student

Address _____

Street City State Zipcode Phone Number

Name and address of family physician or healthcare provider:

Name of Physician/Healthcare Provider

Address _____

Street City State Zipcode Phone Number

PERSONAL HISTORY and PHYSICAL EXAMINATION: (completed by medical provider)

Check **only** if they apply to you. Explain details or abnormal results on the third page of this form.

- | | | | | |
|--|---|---|--|--|
| <input type="checkbox"/> Allergy – Asthma | Vaccinations for: | <input type="checkbox"/> Chicken Pox | <input type="checkbox"/> Small Pox | <input type="checkbox"/> Rheumatic Fever |
| <input type="checkbox"/> Anxiety – Depression | <input type="checkbox"/> Measles | <input type="checkbox"/> Tetanus | <input type="checkbox"/> Typhoid Fever | |
| <input type="checkbox"/> Back Injury | <input type="checkbox"/> Mumps | <input type="checkbox"/> Polio | <input type="checkbox"/> Influenza | |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Rubella | <input type="checkbox"/> Other | | |
| <input type="checkbox"/> Fainting or Blackouts | | | | |
| <input type="checkbox"/> Heart Disease | Prosthesis & Sensory Aides, such as: | | | |
| <input type="checkbox"/> Hepatitis | <input type="checkbox"/> Glasses | <input type="checkbox"/> Contact Lenses | | |
| <input type="checkbox"/> High Blood Pressure | <input type="checkbox"/> Ocular Implant | <input type="checkbox"/> Hearing Aid | | |
| <input type="checkbox"/> Hyperactivity | <input type="checkbox"/> Artificial Limb | <input type="checkbox"/> Cochlear Implant | | |
| <input type="checkbox"/> Immunosuppressed | <input type="checkbox"/> Other | | | |
| <input type="checkbox"/> Migraine Headaches | | | | |
| <input type="checkbox"/> Skeletal Deformity | | | | |

Doctor, students entering the field of Radiologic Sciences must have the following abilities in order to complete the SIUC Radiologic Sciences Program. On the third page, please indicate and explain, in your opinion, which ability(ies) the student has difficulty performing.

- a. Lift 50 pounds of weight and/or assist in lifting patients using proper body mechanics.
- b. Push large pieces of equipment such as mobile radiographic units or mobile fluoroscopic units.
- c. Push patients in wheelchairs or on stretchers.
- d. See, hear, and respond quickly to patients in emergency situations.
- e. Communicate with patients and other health care professionals in oral and written forms.
- f. Understand requisitions and other records necessary for proper patient care.
- g. See the patient and collimator lights to properly position for radiographs.
- h. Move radiographic tubes, tables, upright Bucky trays, etc., as necessary for each exam.
- i. Walk for long distances as is necessary for mobile (portable) radiography.
- j. Performs all duties as required of a medical Radiographer.

REQUIRED IMMUNIZATIONS (completed by medical provider; based upon the CDC Recommended Adult Immunization Schedule, 2013. www.cdc.gov/vaccines/recs/schedules/downloads/adult/mmwr-adult-schedule.pdf. All dates must include month/day/year).

MMR (Measles, Mumps, Rubella): Two doses required, at least one month apart, after age 12 months **AND** after live vaccine available (05/01/1971).

Dose 1 ___/___/___ Dose 2 ___/___/___

If MMR was not given, list individual immunizations below, **OR** attach lab report of MMR titer.

Measles (Rubella, Hard Red, 10 Day Measles)

1. Two doses required, at least one month apart, after 12 months of age **AND** after live vaccine available (01/01/1968).

Dose 1 ___/___/___ Dose 2 ___/___/___

OR, 2. Date disease diagnosed and certified by physician. ___/___/___

OR, 3. Lab report of Measles titer proving immunity (attach lab report) ___/___/___

Rubella* (German Measles, 3 Day Measles)

1. One dose required, after 12 months of age **AND** after live vaccine available (06/19/1969). ___/___/___

OR, 2. Lab report of Rubella titer proving immunity (attach lab report) ___/___/___

* History of Rubella disease is not acceptable as proof of immunity.

Mumps

1. One dose required, after 12 months of age **AND** after live vaccine available (01/01/1968). ___/___/___

OR, 2. Date disease diagnosed and certified by physician. ___/___/___

OR, 3. Lab report of Mumps titer proving immunity (attach lab report) ___/___/___

Tetanus/Diphtheria: Three doses of Diphtheria/Pertussis/Tetanus (DPT) in childhood and a booster of Tetanus/Diphtheria within last 10 years **OR** a 1-time dose of Tetanus/Diphtheria/Acellular Pertussis (Tdap), within the last 2 years.

Dose 1 ___/___/___ Booster Dose ___/___/___ (must be within last 10 years) **OR**

Dose 2 ___/___/___ Tdap Dose ___/___/___ (must be given within last 2 years)

Tuberculosis: Two-Step Mantoux skin test/PPD skin test (Performed no earlier than June 1st).

Dose 1: ___/___/___ Dose 2: ___/___/___ Results of skin test ___ mm

Has patient had a history of previous positive skin test? Yes No

Has patient received BCG? Yes No Has patient received INH? Yes No

If "yes" is answered for any of the above 3 questions, attach supporting documentation, including the results of the student's QuantiFERON-TB Gold test (QFT) and Chest x-ray reports (where applicable).

Varicella** (Chicken Pox)

Date of Disease ___/___/___ **And** Varicella titer to prove immunity ___/___/___ (attach lab report)

Or, Dose 1 ___/___/___ **And** Dose 2 ___/___/___

** History of Varicella disease is not acceptable as proof of immunity.

Hepatitis B

Dose 1 ___/___/___ Dose 2 ___/___/___ Dose 3 ___/___/___

Influenza (Flu Vaccine; Given in October or as soon as available) ___/___/___

STRONGLY RECOMMENDED IMMUNIZATIONS (completed by medical provider; based upon the CDC Healthcare Personal Vaccination Recommendations www.immunize.org/catg.d/p2017.pdf. All dates include month/day/year).

Meningitis ___/___/___ Menactra Menomune Meningococcal (unspecified)

Second Mumps Vaccine ___/___/___

APPENDIX H

CLINICAL INSTITUTE EVALUATION

RADIOGRAPHY CLINICAL SITE EVALUATION

NAME OF HOSPITAL:

COURSE: RAD 222

SEMESTER:

This evaluation form enables the student to rate the clinical facility that she/he has been assigned to for the past semester. It in no way is reflected as a portion of the grading, and will be used only as an informative assessment for future student rotations. Please use a **dark blue** or **black ink** pen when completing this evaluation.

1. The Clinical instructor serves to evaluate Competency testing as well as Image and Behavioral Evaluations. In your opinion were these evaluations:
 - Completely objective, regardless of whether my performance was to the best of my ability or not
 - Somewhat subjective in overestimating my capabilities
 - Somewhat subjective in underestimating my capabilities
 - Completely subjective in that my performances were generally always better than what my evaluations recorded

2. The Radiologist ultimately directs how a department functions through interaction with the technologists. From the student perspective, did the Radiologist function:
 - Well with the technologists and included you as part of the team
 - Well with the technologists, but was reserved and stayed aloof from student interaction
 - Generally part from the department activities except to perform some exams

3. The protection procedures practiced by the technologists regarding collimation, shielding, etc., in this institution were:
 - The best possible radiation protection procedures, reinforcing practices I have learned in didactically (in class/lab).
 - Good protection procedures used most of the time
 - Either not reinforcing or practices differing from what I learned (Please describe what was different and/or not reinforced)

4. Positioning skills exemplified at this institution were:
 - Highly accurate, and concurrent with procedures learned in class
 - Usually accurate, some variations from positioning skills learned in class
 - Seldom accurate, many repeat exposures; not concurrent with procedures I learned didactically (in class & lab).

5. Radiographic exposure factors (techniques) used at this facility were:
- Highly accurate and consistent in each room.
 - Usually accurate; some variation between rooms.
 - Seldom accurate; technologists used own techniques based upon personal experience.
6. Radiographic exposure factors (techniques) used at this facility were:
- Computer based (using CR and/or DR). The technologists changed image quality based upon personal experience, and easily explained what they did, and why.
 - Computer based (using CR and/or DR). The technologists changed image quality based upon personal experience. They could not explain why they changed image quality beyond stating what the equipment manufacturer preprogrammed into the control panel.
 - Computer based (using CR and/or DR). The technologists used the exposure factors preprogrammed into the control panel by the manufacturer without regard for the factors that affect (control) radiographic image quality or patient pathology stated on the imaging request.
7. Working in the health field demands a rapport with patients demonstrating cordial, empathetic treatment of the patient. The technologists here were:
- Very aware of patient feelings and dealt with them empathetically
 - Occasionally short with the patient, but generally attuned to patient needs
 - Very abrupt and distant to patient needs
 - Occasionally too anxious to leave the patient alone and not deal with their needs
8. In summary, what are your feelings/thoughts about your clinical education at this site:
- Excellent, opportunity to experience multiple procedures, exceptional situations, generally reflective that I am part of the department.
 - Very good, I worked well with the department and was allowed to work within the goals of my designated objectives.
 - Good, I was somewhat restricted to only my designated clinical objectives.
 - Not good, the objectives for the semester were not considered in my schedule and department experiences.
 - Other. Please describe your feelings/thought/experiences on a separate page and then attach it to this Evaluation.

CLINICAL EDUCATION SITE: _____ **SEMESTER:** _____

13. Now that your 1st Radiography clinical semester is over, what are your expectations for your next clinical semester in RAD 332 Radiography Clinic 2?

14. What would you like to know more about, before your 2nd Radiography clinical semester starts?

Please make any additional comments relative to any portion of this clinical rotation (use an extra sheet of paper if necessary).

RADIOGRAPHY CLINICAL SITE EVALUATION

NAME OF HOSPITAL:

COURSE: RAD 332

SEMESTER:

This evaluation form enables the student to rate the clinical facility that she/he has been assigned to for the past semester. The information a student provides on this form has no effect on his/her clinical grade. It is used only as an informative assessment for future student rotations. Please use a **dark blue ink** pen or **black ink** pen when completing this evaluation.

1. The Clinical Instructor (and/or his/her designee) serves to evaluate Exam Competency testing as well as monthly Behavioral Evaluations. In your opinion were these evaluations:
 - Completely objective, regardless of whether my performance was to the best of my ability or not.
 - Somewhat subjective in overestimating my capabilities.
 - Somewhat subjective in underestimating my capabilities.
 - Completely subjective in that my performances were generally always better than what my evaluations recorded.

2. The Radiologist ultimately directs how a department functions through interaction with the technologists. From the student perspective, did the Radiologist function:
 - Well with the technologists and included you as part of the team.
 - Well with the technologists, but was reserved and stayed aloof from student interaction.
 - Generally apart from the department activities except to perform some exams.

3. The protection procedures practiced by the technologists regarding collimation, shielding, holding patients, marker placement, etc., in this radiology department were:
 - The best possible radiation protection procedures, reinforcing practices I have learned didactically (in class & lab).
 - Good protection procedures used most of the time.
 - Either not reinforcing or practices differing from what I learned. (Please describe what was different and/or not reinforced).

4. Positioning skills exemplified (demonstrated) in this radiology department were:
 - Highly accurate, and concurrent with procedures learned in class.
 - Usually accurate, some variations from positioning skills learned in class.
 - Seldom accurate, many repeat exposures; not concurrent with procedures I learned didactically (in class & lab).

5. All radiographic exposure factors (techniques; manual and phototimed/AEC) used at this facility were:
- Highly accurate and consistent in each room.
 - Usually accurate; some variation between rooms.
 - Seldom accurate; technologists used own techniques based upon personal experience.
6. Radiographic exposure factors (techniques) used at this facility were:
- Computer based (using CR and/or DR). The technologists changed image quality based upon personal experience, and easily explained what they did, and why.
 - Computer based (using CR and/or DR). The technologists changed image quality based upon personal experience. They could not explain why they changed image quality beyond stating what the equipment manufacturer preprogrammed into the control panel.
 - Computer based (using CR and/or DR). The technologists used the exposure factors preprogrammed into the control panel by the manufacturer without regard for the factors that affect (control) radiographic image quality.
7. Working in the health field demands a rapport with patients demonstrating cordial, empathetic treatment of the patient. The technologists at this hospital were:
- Very aware of patient feelings and dealt with them empathetically.
 - Occasionally short with the patient, but generally attuned to patient needs.
 - Very abrupt and indifferent to patient needs.
 - Occasionally too anxious to leave the patient alone and not deal with his/her needs.
8. In summary, what are your feelings/thoughts about your clinical education at this site:
- Excellent, opportunity to experience multiple procedures, exceptional situations, generally reflective that I am part of the department.
 - Very good, I worked well with the department and was allowed to work within the goals of my designated objectives.
 - Good, I was somewhat restricted to only my designated clinical objectives.
 - Not good, the objectives for the semester were not considered in my schedule and department experiences.
 - Other; Please describe your feelings/thought/experiences on a separate page and then attach it to this Evaluation.

