Columbia St. Mary's School of Radiologic Technology

CLINICAL HANDBOOK 2009

The Columbia St. Mary's School of Radiologic Technology has a clinical education program that is divided into six semesters. Each semester is designed to present the student with progressive levels of opportunities and responsibilities. Every semester the student will be assigned to one of the three main hospital campuses for the clinical portion of the educational program. A student can anticipate two four-month rotations on each campus. Instruction will be conducted at the following clinical sites:

Columbia Hospital -	**2015 E. Newport Avenue** **Milwaukee, WI 53211**
Quality Control Area:	**414-961-3804**
Clinical Instructor, Margaret Hirschfeld:	**414-961-3846**
St. Mary's Milwaukee -	**2315 N. Lake Drive** **Milwaukee, WI 53211**
Quality Control Area:	**414-291-1149**
Clinical Instructor, Dan Cordas:	**414-291-1903**
St. Mary's Ozaukee –	**13111 North Port Washington Road** **Mequon, WI 53097**
Quality Control Area:	**262-243-8344**
Clinical Coordinator, Diane Brower:	**262-243-8275**
Sixteenth Street Clinic –	**2906 S. 20th Street** **Milwaukee, WI 53215**
Quality Control Area:	**414-672-3940**
Clinical Instructors: **Kathy Mattke** **Joanie Stiewe**	
River Woods Outpatient Center -	**375 W. River Woods Parkway** **Glendale, WI 53212**
Quality Control Area:	**414-963-7086**
Clinical Instructor, Dawn Knitter	
Airport Clinic	
Clinical Instructor, Amy Staver	**555 W. Layton Ave.** **Milwaukee, WI 53207** **414-486-4336**

If you will be absent from your clinical site you need to call each of the following numbers at least 1 hour prior to your start time:

Quality Control Area at your assigned clinical site
Clinical Instructor at your assigned clinical site

Failure to call in for an unexcused absence can result in termination from the program.

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COURSE GOALS

Students are assigned in the medical imaging departments of hospitals and clinics to develop the skills necessary to become a Radiologic Technologist. The goal of the clinical education program is to provide the student with a learning environment that will allow them to develop the skills required to perform effectively as an entry level Radiologic Technologist. To meet this goal the graduate student will be able to perform the following in a clinical setting:

1. Apply knowledge of anatomy, physiology, positioning, and radiographic exposure factors to accurately demonstrate anatomical structures on a radiograph or other image receptor.
2. Apply the technical skills to safely and accurately use radiographic equipment and accessory devices in the performance of radiographic images.
3. Evaluate radiographic images for appropriate positioning and image quality.
4. Apply the principles of radiation protection to the patient, themselves, and others following the ALARA (As low as reasonably achievable) principle at all times.
5. Provide care and comfort for the patient while they are in your guardianship.
6. Recognize emergency patient conditions and initiate first aid and basic life support procedures.
7. Detect equipment malfunctions, and report them to the proper authority. Know the safe limits of equipment operation and participate in the quality assurance program.
8. Exercise independent judgment and discretion in the technical performance of medical imaging procedures.
9. Provide patient/public education related to Radiologic procedures and radiation protection/safety.
10. Realize the responsibility to function in overall health care and be a team player.

To enable the student to meet the goals of the clinical education program they will follow the general objectives table below. The objectives are designed to give the student increasing responsibilities as the components of the program progress. The darkened blocks on the chart show the semester in which the task is to be mastered and continually performed.

The following table clarifies the clinical objectives **expected** by all students within the School of Radiography. It is expected that there will be *sequential development of clinical and judgmental skills throughout the curriculum.* These objectives have been modified from the ASRT draft.

	SEMESTER					
OBJECTIVE						
	1	**2**	**3**	**4**	**5**	**6**
1. Exercise the priorities required in daily clinical practice.						
2. Execute imaging procedures under the appropriate level of supervision as demonstrated by competency and academic validation.						
3. Adapt to changes and varying clinical situations.						
4. Support "patient-centered" service for all patients regardless of age, gender, disability, special needs, ethnicity, or culture.						
5. Integrate the use of appropriate and effective written, oral, and nonverbal communication with patients, the public, and members of the healthcare team in the clinical setting.						
6. Choose patient and family education strategies appropriate to the comprehension level of patient/family.						
7. Manage interactions with the patient and family in a manner that provides the desired psychosocial support.						
8. Examine gender, cultural, age, and socioeconomic factors that						

influence patient compliance with procedures, diagnosis, treatment, and follow-up of patients.						
9. Apply standard and transmission-based precautions. Demonstrate Universal Precautions to minimize spread of disease.						
10. Apply the appropriate medical sepsis and sterile technique						
11. Evaluate the patient's status and condition before, during, and following the radiographic procedure to demonstrate competence in assessment skills.						
12. Comply with departmental and institutional procedures for response to emergencies, disasters, and accidents.						
13. Differentiate between emergency and non-emergency procedures.						
14. Interpret patient side effects and/or complications of Radiologic procedures, contrast administration, and take appropriate actions.						
15. Assess the patient using the ABC'S OF CPR and demonstrate basic life support procedures.						
16. Break down the chain of command in emergencies, disasters, and accidents.						
17. Respond appropriately to patient emergencies.						
18. Examine the procedure orders for accuracy, appropriateness and follow-up to make corrective changes when applicable						
19. Assess the patient, and record patient histories						
20. Document care as appropriate in the patient's record/imaging requisition.						
21. Prepare the technologies and methodologies for the performance of Radiologic procedures.						
22. Report equipment malfunctions to assist with appropriate corrective actions.						
23. Performance reflects professional competence in determining corrective measures to improve inadequate images.						
24. Analyze images for appropriate clinical information, image quality, and patient documentation.						
25. Carry out principles of transferring, positioning, immobilizing, and restraining of the patient.						
26. Integrate the radiographer's "Scope of Practice" and practice standards into the clinical practice setting.						
27. Support safe, ethical, and legal practices to support organizational corporate compliance policies.						
28. Act consistently to maintain confidentiality standards.						
29. Adapt procedures to meet age specific, disease-specific, and cultural needs of patients.						
31. Adhere to all organizational and departmental standards, policies, and procedures regarding care of patients, provision of Radiologic procedures and reduction of medical errors.						
32. Adhere to concepts of team practice that focus on organizational theories, roles of team members and conflict resolution.						

STRUCTURE OF THE CLINICAL EDUCATION PROGRAM

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Students at each clinical site will have assignments that are 2-3 weeks in length. The assignments are given to allow the student to practice and perform the tasks and procedures that are required of a Radiologic Technologist. Rotations are designed to allow students opportunities to apply principles learned in the academic setting. Observation assignments are included to familiarize the student with areas of the departments in which they will soon be learning procedures.
The general pattern of rotational assignments is as follows (SAMPLE ONLY):

First Semester (September –December)

3 weeks	General Orientation
1 week	File Room/ Reception Area /Patient Transportation
6 weeks	General Radiography
2 weeks	Fluoroscopy
3 weeks	Emergency/Mobiles

Second Semester (January-April)

7 weeks	General Radiography
2 weeks	Surgery (observation only)
4 weeks	Fluoroscopy
3 weeks	Emergency/Mobiles

Third Semester (May-August)

4 weeks	General Radiography
4 weeks	Fluoroscopy
3 weeks	Emergency/Mobiles
3 weeks	Surgery

Fourth Semester (September-December)

4 weeks	General Radiography
3 weeks	Emergency/Mobiles
3 weeks	Fluoroscopy
3 weeks	Surgery
2 weeks	CT
2 days	Radiation Oncology

Fifth Semester (January-April)

3 weeks	General Radiograph
2 weeks	Angiography
2 weeks	Cath Lab (optional)
1 week	MRI
2 weeks	Mammography & Bone Densitometry (optional)
1 week	Ultrasound (optional)
2 weeks	Fluoroscopy
3 weeks	Surgery

Sixth Semester (May-August)

5 weeks	General Radiography
2 weeks	Children's Hospital of Wisconsin
1 week	Radiologist shadow (as time permits)
3 weeks	Fluoroscopy
3 weeks	Surgery

The nature of radiography is always changing. Your assignment in any clinical area is subject to change because of variations in patient flow, availability of equipment and/or available staff.

Each day will be divided with half of the allocated time spent at the student's assigned clinical site and half being spent in the classroom.

During the first and second semester, junior students will have a positioning lab one afternoon per week at the clinical site to which they are assigned.

Depending on the semester, Friday mornings will be either 4 hours of clinical time or 4 hours of didactic instruction.

During the twenty-four month educational program the student will be assigned to **three weeks of evening rotations in third and sixth semester**, with scheduled hours of 1500-2230.

There will be a schedule of site and rotation assignments issued one month prior to the end of each semester.

CLINICAL OBJECTIVES

Specific Clinical Objectives

Along with the general objectives of the clinical program, the student has specific tasks that must be performed effectively as they progress through the areas of clinical rotation. The expectation of the student is to follow all general objectives that are specific to that semester and perform these rotation specific objectives.

Semester I:

File Office/ Reception Area, and Patient Transportation

Each student will have (1) 1 week rotation in the file office/reception area, and patient transportation for their first clinical rotation. By the end of this rotation, the student will demonstrate adequate capability to:

- Answer and operate the telephone system
- Locate and retrieve files
- Competently use the Cerner computer system to record and track the location of the files.
- Competently use the PAC's / Ultravisual system.
- Actively participate in any remaining clerical or reception duties to the expectations of the lead office personnel
- Become familiar with protocols of transport and actively participate in patient transport with qualified personnel
- By the end of the week rotation, the student should demonstrate ability to independently transport patients under direct supervision.
- Demonstrate knowledge and ability to use equipment and follow protocols necessary to accommodate the patients' condition
- Always ensure all wheelchairs and carts or any other device used to transport a patient are locked and secured **whenever** you are not in motion, regardless of patient condition.

General Radiology:

Students will spend a total of 6 weeks in the general radiology area their first semester. For the beginning of this rotation, the student will **observe only.** As the student becomes more academically prepared, they may perform radiographic exams on patients under direct supervision until they have become clinically competent. Students in the first semester are limited to performing exams of the chest, abdomen, upper extremity, shoulder girdle, and lower extremity. For all other exams, the student may assist only.

- Students will practice radiation safety at all times while in general radiology or any other rotation.
- Accept assignments in other areas as needed.

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Fluoroscopy

Students will spend a total of 2 weeks in fluoroscopy. The student will be limited to observation only.

- Students will remain under the **direct supervision of the RT at all times** while in fluoroscopic procedures.
- All students are encouraged to ask questions of the RT during this observation period. This must be done when the patient is not present.
- Students will practice radiation safety procedures at all times while in fluoroscopic procedures.
- **The student should not attempt to perform any fluoroscopic study while in this rotation**. The student may take the scout abdomen film for GI studies.
- By the end of the rotation, the student will become efficient in room preparation, data entry, and protocols of fluoroscopic exams.
- The student should be observant in how barium and other contrast agents are prepared for the exams
- The student should assist the RT in cleaning the room and preparing it for the next exam.

Portables and Emergency Room:

In the first semester, the student will have (1) 3-week rotation in Portable Radiography and the Emergency Room. During this rotation, the student will:

- Remain under the **direct supervision of the RT at all times**.
- Actively participate in exams of the chest, abdomen, upper and lower extremities, and shoulder girdle.
- Actively assist in all other radiographic exams while a patient is in a room.

The student will NOT:
Perform any emergency procedure without the immediate availability of a RT. All portable exams may only be performed with an RT. There are no exceptions.

<u>Semester II</u>

General Radiology:

Students will spend a total of 9 weeks in general radiology. They may perform any exams under direct supervision until they become competent:

- Students will continue to perform radiographic exams that they have gained competency in; this must be under indirect supervision.
- The students will observe and assist all radiographic exams when patients are in rooms.
- Accept assignments in other areas as needed.

Portables and Emergency Room:

In the second semester, the student will have (1) 3 week rotation in Portable Radiography and the Emergency Room. During this rotation, the student will:

- Actively participate in all exams in which they are clinically competent.
- Actively assist in all other radiographic exams while a patient is in a room.
- Progressively demonstrate initiative, independence and willingness to perform radiographic exams

The student will NOT:
Perform any emergency procedure without the immediate availability of a RT. All portable exams may only be performed with an RT. There are no exceptions.

Fluoroscopy:

The student will have (2) 2 week rotations in fluoroscopic procedures during their second semester. At this time, the student will be expected to:

- Participate in all fluoroscopic exams.
- Anticipate the next exam prior to the patient arriving.
- Assure all aspects of room preparation for the exam are complete before the radiologist enters the room.
- Consistently practice radiation protection.
- Prepare barium or other contrast agents and aids pertinent to the exam.
- Through observation and academic preparation, participate in patient education by explaining procedures.
- Assist the RT and radiologist as needed.
- Assist the patient from the room to the appropriate area. (Changing room, next exam….)
- Thoroughly clean the room after the exam and prepare it for the next study.
- *** In this rotation, in compliance with the radiologists' protocol, students will be inserting the rectal enema tip for barium enema studies. This will ONLY be done under the direct supervision of the RT or radiologist. Under NO circumstance, will a student attempt to insert a rectal enema tip without the direct supervision of the RT, NO EXEPTIONS.** Failure to comply with this may result in serious consequence.

Surgery:
The student will have (2) 1 week rotations in the Surgery Department. During this rotation, the student will:

- Accompany the RT designated to surgery for all cases.
- **OBSERVE ONLY** all surgeries requiring medical imaging.
- Remain with the RT at ALL TIMES while in the surgery suite.
- Strictly adhere to the sterile field.

During this rotation, the student will **NOT:**

- Enter any area of the surgery suite unless accompanied by the RT.
- Enter the surgery suite wearing anything other than dedicated surgery scrubs.
- Leave the hospital wearing surgery scrubs.
- Contaminate the sterile field. This is avoided by adhering to the rule of remaining in constant direct supervision of the RT.

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Semester III

General Radiography:

The student will have (2) 3 week rotations in the general radiography area. By the end of the semester, the student will actively participate in:

- All radiographic exams.
- Interpretation of physician orders, assuring the requisition is correct
- Proper patient identification prior to the examination.
- Professionally interacting with the patient
- Independently preparing the room and any necessary imaging equipment for the exam
- Taking thorough patient medical history as it pertains to the exam
- Independently demonstrating a strong ability to perform the exams they are competent in, including all aspects of equipment operation and image production under indirect supervision
- Using sound judgment to get assistance if patient condition changes
- Employing all cumulative knowledge in duties performed throughout the department.
- Actively participate in and perform exams they have become academically competent in under indirect supervision
- Take initiative to participate in any other exams, stocking rooms, assisting others and remaining productive
- Accept assignments in other areas as needed.

Fluoroscopy:

The student will have (2) 2 week rotations in fluoroscopy. In this rotation, the student will demonstrate independent proficiency in:

- Interpreting physician orders and requisitions
- Anticipating the exam prior to patient arrival
- Ensuring all room preparation is in order including data entry, contrast supplies, equipment preparation and any other details specific to the exam
- Professionally interacting with the patient, ensuring they are prepared for the exam with appropriate clothing, removal of artifact, etc.
- Taking a clear and precise medical history pertinent to the exam
- Employing radiation protection
- *** In this rotation, in compliance with the radiologists' protocol, students will be inserting the rectal enema tip for barium enema studies. This will ONLY be done under the direct supervision of the RT or radiologist. Under NO circumstance, will a student attempt to insert a rectal enema tip without the direct supervision of the RT, NO EXEPTIONS.** Failure to comply with this may result in serious consequence.
- Assisting the radiologist during the exam with the direct supervision of the RT until competence is attained.
- Anticipating any required materials for the radiologist and promptly provide them
- Independently positioning the patient for all necessary films pertinent to the exam
- Carrying out all aspects of image production including digital processing
- Following through all aspects of the exam with the patient, escorting them to their next appropriate area
- Ensuring the room is clean, orderly and prepared for the next exam

Mobile Radiography / Emergency Room
The student will have (1) 3 week rotation in Portable Radiography and Emergency Room. During this rotation, they will be expected to work (2) 1 week rotations of second shift as part of their clinical education. This rotation is designed to give the student a flavor of radiography work done on off-shift times. During this rotation, the student will:

- Take initiative to begin exams
- Determine technique and positioning for portables
- Demonstrate ability to accurately perform exams from the ER while showing strengths in adapting to patient condition
- Utilize radiation protection
- Follow ER and radiology dept. protocols and policy precautions for specific exams
- Take a detailed history and show the ability to provide the radiologist with any information he or she may need to provide a diagnosis

The student will NOT:
Perform any emergency procedure without the immediate availability of a RT. All portable exams may only be performed with an RT. There are no exceptions.

Surgery:
The student will have (1) 2 or 3 week rotation in the Surgery Department depending on the clinical site. During this rotation, the student will:

- Accompany the RT designated to surgery for all cases.
- Observe all surgeries requiring medical imaging.
- Remain with the RT at ALL TIMES while in the surgery suite.
- Strictly adhere to the sterile field.

During this rotation, the student will **NOT:**

- Enter any area of the surgery suite unless accompanied by the RT.
- Enter the surgery suite wearing anything other than dedicated surgery scrubs.
- Leave the hospital wearing surgery scrubs.
- Contaminate the sterile field. This is avoided by adhering to the rule of remaining in constant direct supervision of the RT.

Semester IV

Mobile Radiography / Emergency Room
The student will have (1) 2 week rotation in Portable Radiography and Emergency Room.

During their portable rotation, the student will:

- Increase intellectual independence and assertiveness in Radiologic procedures.
- Take initiative to begin exams.
- Determine technique and positioning for portable exams.
- Demonstrate the ability to accurately perform exams from the ER while showing strengths in adapting to patient condition.
- Utilize radiation protection.
- Follow the ER and Radiology dept. protocols and policy precautions for specific exams.
- Take a detailed history and show the ability to provide the radiologist with any information he or she may need to provide a diagnosis.

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During this rotation, the student **will not:**

Perform any emergency procedure or portable exam without the availability of an RT in the immediate vicinity. There are absolutely no exceptions.

NOTE: At no time shall two students, regardless if they are juniors, seniors or combined, attempt any portable exam or ER exam without being accompanied by a RT.

General:
The student will have (2) 2 week rotations in the general radiography area. By the end of the semester, the student will demonstrate proficiency in:

- Interpretation of physician orders, assuring the requisition is correct
- Identifying the patient as the person receiving the exam
- Professionally interacting with the patient
- Independently preparing the room and any necessary imaging equipment for the exam
- Taking a thorough patient medical history as it pertains to the exam
- Independently demonstrating a strong ability to perform the exams they are competent in, including all aspects of equipment operation and image production under indirect supervision
- Using sound judgment to get assistance if patient condition changes
- Employing all cumulative knowledge of the field thus far
- Actively participating in and performing exams.
- **Taking the initiative** to participate in any exams, stocking rooms, assisting others and remaining productive
- Mentoring junior students
- Consistently demonstrating initiative to employ sound knowledge of departmental procedures and reflect confidence as well as reasonable judgment in non-routine situations.
- Accepting assignments to other areas as needed.

Fluoroscopy:

There will be (1) 3 week rotation in fluoroscopy during the fourth semester. The student should demonstrate confident ability to perform all general diagnostic fluoroscopic exams independently.

Surgery:

The student will have (1) 3 week rotation in surgery. It is expected the student will gain clinical competence in their surgery rotation. The student will demonstrate competency in c-arm manipulation, retrograde cystograms, and various other surgical procedures that require medical imaging. They must consistently demonstrate all necessary surgical precautionary measures under the direct supervision of the RT. At no time prior to graduation is a student to perform ANY surgical procedure or enter the surgery suite without the direct supervision of the RT.

Radiation Oncology:

The student will have a 2 day rotation in the radiation oncology department at Columbia St. Mary's Ozaukee. The student may participate at his or her own comfort level and at the discretion of the technologist and the patient in this observational rotation

Semester V:

In the fifth semester, the students will begin rotating through other medical imaging departments. During these special rotations, it is expected the students will represent the school by displaying all the professionalism and positive qualities they demonstrate within the regular clinical rotations.

Special rotations:

Angiography:

Students will have (1) 2 week rotation through angiography. There are no opportunities for comps in the angiography rotation; however, the student will be evaluated at the end of the rotation. Students are encouraged to assist as much as possible in this rotation and take this opportunity to become aware of the opportunities this type of radiography has to offer.

MRI and CT

Students will have (1) 1 week rotation in MRI and (1) 2 week rotation in CT. There is no opportunity for comps in MRI but the student will also be evaluated at the end of the rotation. They will be expected to assist and participate as much as possible in this rotation.

CT:
The student will be expected to:

- Learn the basic fundamentals of CT
- Assist the CT technologist in all aspects of exams and patient care
- Become familiar with sectional anatomy
- Competently perform CT's of the head and abdomen

Mammography and Bone Densitometry:

The student will have (1) optional three week rotation, again incorporating mammography with bone densitometry. These modalities do not offer mandatory competency testing. The student may participate at his or her own comfort level and at the discretion of the technologist and the patient in this observational rotation

Semester VI

In the sixth semester, the students will rotate to Children's Hospital. During this special rotation, it is expected the students will represent the school by displaying all the professionalism and positive qualities they demonstrate within the regular clinical rotations.

Children's Hospital
During this semester, the student will have (1) 2 week rotation at Children's Hospital. The first week will be a first shift rotation, the clinical hours are 0730-1500 and the second week will be a second shift rotation, the clinical hours are 1500-2230. In this clinical rotation, the student will:

- Practice professionalism and knowledge learned thus far
- Assist Children's Hospital radiology staff
- Adhere to radiation protection practices
- Competencies may be performed at the discretion of the Children's Hospital radiology staff.

Rev. 4/2010

General

The student will have (4) 2 week general rotations. During this rotation, the student will:

- Consistently take initiative to perform all exams in which they are competent.
- Take this opportunity to enhance and perfect details of their clinical skills.
- Accept other assignments as needed

Fluoroscopy:

The student will have (1) 3 week rotation in fluoroscopy. The student should demonstrate confident ability to perform all general diagnostic fluoroscopic exams independently.

Surgery:

The student will have (1) 3 week rotation in surgery. The student should demonstrate confident ability to perform routine surgical examinations. At no time prior to graduation is a student to perform ANY surgical procedure or enter the surgery suite without the direct supervision of the RT.

Radiologist Dictation:

The student **may** have (1) 1 week rotation shadowing a Radiologist. They will observe all aspects of the radiologist's responsibilities with concentration on dictation.

During this final semester the student may take the opportunity to rotate through any area they are deficient in competencies, require more education in, or simply wish to enhance knowledge of a modality they find particularly interesting. The latter is conditional on completion of all other clinical requirements. It is the responsibility of the student to request an assignment from the clinical instructor to any area that offers them the best opportunity to complete their mandatory competencies.

CLINICAL COMPETENCIES

Rev. 9/06

CLINICAL COMPETENCY PROGRAM

The goal of the Clinical Competency Program is to validate the student's ability to:

1. Apply anatomy, physiology, positioning and radiographic technique to accurately demonstrate anatomical structures on a radiograph or other imaging device.
2. Determine exposure factors to achieve optimal radiographic techniques with minimum exposure to the patient.
3. Evaluate radiographic images for appropriate positioning and imaging quality.
4. Apply the principles of radiation protection for the patient, themselves, and others.
5. Provide patient care and comfort.

The program is designed to meet the clinical site's goal of providing quality patient care and the student's need to perform in the clinical setting. There are several steps each student must progress through before being allowed to perform clinical procedures independently.

The program is designed to integrate the student's classroom knowledge with their performance in the clinical setting. Two separate types of competencies will be tested in the program.

1. **Clinical Skills** – those skills that the student must possess to operate equipment or to provide patient care. These skills are indirectly related to the production of the diagnostic radiograph.
2. **Radiographic Procedures** – those skills that are directly related to the production of a diagnostic image or related imaging skill.

In the third, fourth, fifth and sixth semester there will be mandatory recomps for competency on certain procedures. **No initial compentency may be performed in the same semester as the recomp or terminal competency. If the initial competency is not completed prior to the semester in which the recomp is to be done, an automatic zero will be result for Quality of Performance on the Clinical Instructor end of semester evaluation.** A recomp is in addition to all mandatory and elective competencies. The recomp must be performed in a specific semester; failure to do so will result in an unsatisfactory total performance on the Clinical Instructors end of semester evaluation of the student. It is the student's responsibility to request that an RT or CI recomp them on an examination. The RT or CI must complete a competency form as for all other competencies.

Only 5 competencies may be simulated in the entire 24-month period and these must be performed within the students' last semester. No GI, portable, surgical, trauma exams or semester/terminal recomps may be simulated. You must contact your Clinical Instructor to schedule simulations.

Eight of the ten terminal competencies must be performed with a clinical instructor and can not be simulated. If a clinical instructor will not be present at the site they will appoint a technologist in their place. No terminal competencies may be performed during the summer vacation.

To graduate from the program the following has to be accomplished:

Completion of the 55 mandatory competencies
Completion of 50% of the 33 elective competencies (16)
Completion of the 6 mandatory clinical skills
Completion of all mandatory recheck/terminal competencies

If at anytime the Clinical Instructor feels that a student needs to be retested on an exam within any semester they have the authority to do so.

Rev. 9/2009

STUDENT SUPERVISION POLICIES

Clinical Instructor

A Clinical Instructor shall be appointed to all clinical sites offering student education to assume responsibility for all students assigned to the site. Clinical Instructors are ARRT registered radiographers who through education and experience meet or exceed the qualifications established by the JRCERT. They are responsible for ensuring that the student's education is appropriate and follows the clinical education plan. Their duties include orienting the student to the education site, monitoring student progress, maintaining attendance and other records, evaluating student achievement, counseling students on clinical progress and/or concerns, and teaching lab and other clinical courses.

Clinical Instructors are the student's immediate supervisor in the clinical education site. Questions and concerns regarding activities in the clinical education site should be directed first to the Clinical Instructor. Any concern that cannot be resolved by the Clinical Instructor should be brought to the attention of the Clinical Coordinator. The chain of command should be followed in resolving your concerns.

Performing Clinical Procedures

Students shall not attempt to position patients for any examination at a clinical education site until they have successfully completed appropriate classroom and laboratory requirements. The clinical education plan specifies the clinical activities included in each semester.

Students are assigned to the clinical setting to learn the art and science of radiography. Students are expected to be aggressive and to pursue their education. At any time a student feels uncomfortable or unsure of their skill, they may request the presence of a qualified RT. Likewise, feeling uncomfortable does not mean the student does not have to assist with the procedure. Failing to assist with a procedure may result in loss of clinical grade or be considered as a failure on the competency form.

Rev. 9/06

Direct Supervision

All student activity in radiographic procedures and examinations shall take place under the supervision of a qualified registered Radiologic technologist (RT) who possesses an **active ARRT** certification in radiography. Until a student has proven competency in a specific procedure, all examinations of that procedure shall be performed under direct supervision. To meet the elements of direct supervision, the RT must:

1. Review the request in relation to the student's achievement.
2. Evaluate the condition of the patient in relation to the student's knowledge.
3. Be present during the conduct of the examination.
4. Review and approve the radiographs.

Until the student achieves competency, the ratio shall be one radiographer to one student.

Indirect Supervision

Students who have achieved competency in a given examination must remain under indirect supervision of the RT. To meet the elements of indirect supervision the RT must:

1. Be immediately available and physically near at all times. The JRCERT defines this as an RT in the adjacent room.
2. Be present for all repeat radiographs regardless of the student's competency level.
3. Review and approve the radiographs.

Students are expected to participate in a variety of procedures and with a variety of RT's each semester. This allows the student to benefit from the diversity of technical backgrounds and experiences available in the CSM Health System.

It is the student's responsibility not to perform an exam that they are not competent on without a registered technologist in the room. Failure to comply with this requirement can result in dismissal from the program.

Repeating a Radiograph

Radiographs, which are unsatisfactory due to an error by the student, must be repeated under the direct supervision of a qualified RT. This is to ensure that the repeat radiograph will be properly performed and further radiographs will not be necessary. Students are expected to repeat the radiograph. UNDER NO CIRCUMSTANCES SHOULD THE STUDENT REPEAT A RADIOGRAPH WITHOUT A RT IN THE ROOM.

It is the student's responsibility not to repeat the radiograph without a registered technologist in the room. Failure to comply with this requirement can result in dismissal from the program.

Rev. 9/07

CLINICAL COMPETENCY

Throughout the general and specific clinical objectives, clinical competency is mentioned. This program is the school's method of validating that a student can perform the clinical procedures required to become a Radiologic technologist. This is a FIVE-step program:

STEP ONE: The procedure is taught in the classroom and in lab classes held at the clinical site.

STEP TWO: Performance of the procedure is demonstrated and practiced in a clinical education session. At this time, information regarding routine, film size and technique should be entered into your procedures pocket guide.

STEP THREE: The student must assist with the performance of the procedure at least once if feasible.

STEP FOUR: When the student feels prepared, they initiate the exam. The student must present a clinical competency evaluation form to the RT evaluator **before** beginning the procedure and perform the procedure independently under their direct supervision. If the examination is performed correctly and the student receives a grade of 90% or above, the RT will complete and sign the competency evaluation form and return it to the CI/Lock box. If the student does not perform the examination in a satisfactory manner, the RT evaluator will complete the competency form and fail the student; the form will then be returned to the CI/Lock box. If the procedure cannot be correctly performed after 2 attempts on different patients, the student will be referred for additional instruction from the CI.

STEP FIVE: The student will be given an appointment with the clinical instructor for a film critique session. If the student can explain the procedure, name the anatomy shown, and answer relevant questions, the CI will sign the form and file it in the student records. The student will have that procedure added to their competency list and will/should be able to perform this procedure independently.

THINGS TO BE REMEMBERED ABOUT COMPETENCY

1. Once a student is competent in a procedure, they may perform it under indirect supervision.

2. Competency does not assure that you will feel comfortable with every patient. If after patient assessment, you feel the patient will be more difficult than you can handle, you may request an RT to assist you with the examination. You are still expected to perform that exam with their assistance.

3. Once you are competent in a procedure you will be expected to know the routine and correct technique of the clinical site in which you are assigned. When you perform the examination, you are expected to do it correctly. **If the student performs the examination incorrectly**, **this will be listed on the competency record as a failure. Two failures will invalidate your competency and you will need to return to step three and repeat the remaining steps to regain your competency listing.**

4. Refusing to perform or assist with a procedure will result in withdraw of the competency.

5. The patient is the most important person in this procedure, the RT may take over at any point in any examination regardless of the student's need to complete or retain competency.

6. **You will be unable to graduate this program without performing all mandatory, elective, recheck, and terminal competencies.**

Rev. 8/2008

CLINICAL COMPETENCY TEST OUT CRITERIA

Students must adhere to the following criteria when ready to perform a clinical competency:

1. Inform the technologist **prior** to the exam of their desire to comp.
2. Have the competency form available for the RT or CI **prior** to performing the exam.
3. Set up the room for the exam.
4. Escort the patient to the room and verify the patient's identity using established department policies. Example: the patient should spell their last name and verify their date of birth.
5. Properly prepare the patient for the exam, including explaining the procedure to them.
6. Have any necessary paperwork filled out and signed by the appropriate individuals.
7. Obtain the patient's medical history and check the orders for the correct exam.
8. Position the patient correctly.
9. Set the proper technique.
10. Have the correct size cassettes ready.
11. Correctly mark the images with lead markers. Incorrect marking of an image will result in failure of a competency.
12. Check the images with a RT, CI, or QC tech.
13. In the case of repeat images, the student must be able to make their own corrections.

At no time should the student ask the RT for help with positioning, cassette size, routine or technique. You may use your clinical book to check only techniques during competency testing.

Competency is graded on a percentage, 90% or above is a passing grade. The student must be confident before attempting the competency. If the RT or CI has to intervene while the student is performing the exam, the competency will be terminated and documented as a failed attempt.

Rev. 8/2008

HOW DO YOU GAUGE YOUR CLINICAL PROGRESS

For students progressing through the program at the normal speed, it is suggested you will have accomplished the following competencies in these semesters.

Semester 1

- Routine chest and abdomen procedures
- Minimum 8 competencies
- CPR certification
- Patient transport Safety

Semester 2

- Upper and Lower Extremity procedures
- Minimum 12 competencies
- Sterile Technique

Semester Three

- Minimum 15 competencies
- Three mandatory rechecks on the following competencies:
    - Critical Chest
    - Abdomen Upright and Supine
    - Any Extremity

Semester Four

- Minimum 15 competencies
- Three mandatory rechecks on the following competencies:
    - Any Extremity
    - Any Spine
    - Any GI

Semester Five

- Minimum 12 competencies
- Three mandatory rechecks on the following competencies:
    - Any GI or IVP
    - Any Headwork or surgical procedure
    - Any Portable

Semester Six

- Within the first 8 weeks, completion of any remaining competencies
- Ten terminal competencies.

Rev. 8/2008

Competency List

THORAX	Mandatory/ Elective	Date Completed	Patient or Simulated	Verified By
Chest Routine	M			
Chest W/C or Cart	M			
Chest Critical (IV and O2)	M			
Ribs	M			
Lordotic Chest	E			
Chest Obliques	E			
Chest Decubs	M			
Sternum	E			
ABDOMEN				
Flat Abdomen/KUB/Post Evac	M			
Abdomen: Supine and Upright	M			
Abdomen Decubs	M			
UPPER EXTREMITIES				
Finger or Thumb	M			
Hand	M			
Wrist	M			
Forearm	M			
Elbow	M			
Humerus	M			
Shoulder	M			
Clavicle	M			
Scapula	E			
AC Joints	E			
Wrist– Navicular View	E			
LOWER EXTREMITIES				
Foot	M			
Ankle	M			
Knee	M			
Lower Leg	M			
Patella (sunrise)	M			
Femur	M			
Weight-bearing knees	M			
Toes	E			
Os Calcis	E			
Weight-bearing feet	E			
Rev. 9/2009				

SPINE AND PELVIS	Mandatory/ Elective	Date Completed	Patient or Simulated	Verified By
Cervical Spine	M			
Thoracic Spine	M			
Lumbar Spine	M			
Pelvis	M			
Hip	M			
Sacrum and/or Coccyx	M			
Scoliosis Series	E			
SI Joints	E			
Spine Flexion and/or Extension	E			
HEAD AND NECK				
Facial Bones	M			
Nasal Bones	E			
Paranasal Sinuses	M			
Orbits	E			
Orbits – Pre-MRI	M			
Zygomatic Arch	E			
Skull – 2 views minimum	M			
Mandible dept. / OR	M			
Lateral Neck – soft tissue	M			
GI and URINARY TRACT				
Esophagus	E			
Upper GI	M			
Small Bowel	M			
Colon with Air or Colon –single	M			
IVP	E			
Video Swallow	M			
Cholangiogram – any type	E			
Cystogram – any type	E			
TRAUMA				
C-Spine: Cross-Table lateral	M			
Hip: Cross-Table Lateral	M			
Shoulder: with transthoracic or Y	M			
Upper extremity R/O Fx	M			
Lower extremity R/O Fx	M			
Rev. 8/2008				

PEDIATRICS – 6yrs & under	Mandatory/ Elective	Date Completed	Patient or Simulated	Verified By
Chest	M			
Upper Extremity	E			
Lower Extremity	E			
Abdomen	E			
BEDSIDES/PORTABLES				
Chest	M			
Chest: Neonate	E			
Abdomen	M			
Extremity: any	M			
ICU Chest	M			
SURGERY				
C-arm: Set up and Ortho Exam or RFA or Nucleoplasty	M			
Spine Surgery: Shoot-through	M			
Operative Cholangiogram	M			
Retrograde Urography	E			
Epidural with C-arm	E			
Chest or Abdomen in the OR	E			
OTHER EXAMS/MINOR SPECIALS				
Arthrogram	E			
Myelogram, Lumbar Puncture, or Epidural in Dept. at COL	M			
CT: Brain	M			
CT: Abdomen or Spine	E			
CT: Chest	E			
Hysterosalpingogram	E			
Mammogram	E			
Venogram	E			
Sialogram	E			
ERCP	E			
Bronchoscopy	E			
MANDATORY CLINICAL SKILLS				
Sterile and aseptic technique	M			
Vital Signs (patient care)	M			
CPR	M			
Care of patient medical equipment (critical chest)	M			
Venipuncture	M			
Transfer of patient (transport)	M			
Rev. 9/2009				

RETESTING ON EXAMS

There will be no retesting of exams in the 1st and 2nd semester.
The schedule will be as follows:

Semester	Exam Type	Type of Exam	Date
Third	Chest		
	Abdomen: Supine and Upright		
	Any Extremity Exam		
Fourth	Any Extremity Exam		
	Any Spine Exam		
	Any GI Exam (UGI, SB, Colon)		
Fifth	Any GI Exam (UGI, SB, Colon)		
	Any Headwork or surgical procedure		
	Any Portable Exam		
Sixth	ICU Portable Chest		
	Abdomen: Upright & Supine		
	Upper Extremity		
	Lower Extremity		
	Cervical Spine		
	Lumbar Spine		
	Any Headwork		
	Any GI Exam		
	Any Surgery Exam		
	Any portable exam other than a chest		
Rev. 9/2009			

NOTE: If at anytime the Clinical Instructor feels that a student needs to be retested on an exam within any semester, they have the authority to do so.

CLINICAL PERFORMANCE

Rev. 9/06

CLINICAL BEHAVIOR POLICIES

The School has rules that will govern your behavior while you are in the clinical education sites. Always remember the main function of each clinical site is patient care. You will be receiving your education secondary to this function.

Professional/Ethical Behavior

As a student, you are a representative of the school, the CSM system, and the profession. We expect you to conduct yourself accordingly. A dignified and respectful manner must be observed between yourself and **ALL PERSONS** you will meet during your education.

As you demand respect for who you are and what you are doing, so will the rest of the medical profession. You are to address persons in authority as Mr., Ms., Doctor, Sister, Father, or Rabbi followed by their last name. Physicians, nuns, priests, etc. demand this even outside the work situation. Your common sense rules the situation.

When you are in the clinical education site, you have entered a patient-focused business. You should be constantly aware that the staff around you could be discussing patient-related matters or administrative matters for the medical imaging department.

Please abide by the following rules:

1. Students are expected to be in their areas of assignment on time and to remain in those areas unless given other assignments. Students are expected to be present at their clinical site **10 mins prior to their start time** to meet with the Clinical Instructor. Students arriving late, being unaccounted for or incurring an unscheduled absence will receive a clinical grade deduction and missed time will have to be made up prior to the end of the semester proficiency exam. If this is not done, the student will receive a zero for attendance on the end of semester clinical instructor evaluation. (refer to school grading policy)
2. **Students should arrive at their clinical site prepared to take radiographs; this means that you should always have your film badge, nametag and film markers with you. If you arrive at the clinical site without all of these items, the CI will send you home to retrieve the missing item and this time will have to be made up.**
3. Each student will be assigned to a room in the clinical setting for their rotations. The student will need to utilize their time wisely. If there are no patients for your room, you may study with only one book. Always keep your books out of patient view; put them behind the panel. Always make sure the room you are in has enough linen and is clean. This should be checked at the beginning and end of your clinical shift.
4. Students are not allowed to study in the presence of patients.
5. No personal conversation is allowed in the presence of patients.
6. Smoking is prohibited on all CSM hospital campuses, any student caught smoking on hospital grounds will be dismissed from the program.
7. Students will get breaks in the clinical site as patient load allows. Breaks are normally 15 minutes in length, lunch breaks are 30 minutes in length and the supervisor will grant both. Do not leave the clinical area unless directed to.
8. Students may not leave their assigned area until the assigned time. If the student has stayed more than their assigned time to complete a patient or at the supervisor's request, compensatory time-off (A-time) will be given.
9. **All clinical assignments are final**.
10. Students will be granted telephone privileges within reasonable limits. The student can use payphones on their own time. In the event of an emergency, the student may use the department phones.

Any situation, discussion, or actions on the part of the student, which demonstrates lack of concern and care for the patient or his /her family members and friends, will not be tolerated. The school has zero tolerance with students who lose their temper or become curt with our customers, fellow students, or our staff. When faced with difficult situations students are expected to maintain their demeanor and discuss the situation at a later time with either their clinical instructor or the program director.

The school maintains your confidentiality in matters of grades and evaluations. You are expected to maintain the confidentiality of the patient. You may discuss the patient only with medical professionals directly involved in the care of the patient. You are not allowed to discuss the patient's diagnosis or findings with the patient; only his or her physician must do this. You may not discuss any aspect of a patient's treatment or his or her visit to the radiology department with anyone.

Any accident or unusual occurrence, which may cause the student, the radiology department, or the hospital to be liable for legal action, must be reported to a member of School faculty immediately. This will allow for correction of the problem and collection of information, which will protect the integrity of all. The student must fill out an incident report to document any occurrence fitting in this category. If you are in doubt about any happening, seek the advice of a CI immediately. Reports are required for patient injury, lost belongings, damaged or malfunctioning equipment, or any hazardous situation.

If a student is injured in the clinical setting, they must complete a CSM Accident and Investigation Report that must be signed by the Clinical Instructor. Once the form has been completed, the student should go to the Occupational Health Department. The student's primary physician should provide initial treatment and any required follow-up treatment and any charges incurred are the responsibility of the student.

If a student is placed on restricted duties by a physician they must provide a copy of the documentation to their clinical instructor who will endeavor to make alternative clinical rotation arrangements. If alternative arrangements can not be made the student will be unable to attend their clinical rotation and the missed time will have to be made up prior to the end of the semester. Once the student's physician releases them documentation of this must be provided to the clinical instructor and the occupational health department.

Complaint Procedure

Education is never perfect. When students have complaints, they are expected to follow the chain of command. If you have a problem at the clinical site, it should be discussed with the clinical instructor, then the Clinical Coordinator, following up the organizational chart. Any problems requiring action by the school must be in writing.

Chain of command:

Clinical Instructor
Clinical Coordinator
Program Director
Dean of the College of Nursing
CSM School of Radiologic Technology Advisory Board

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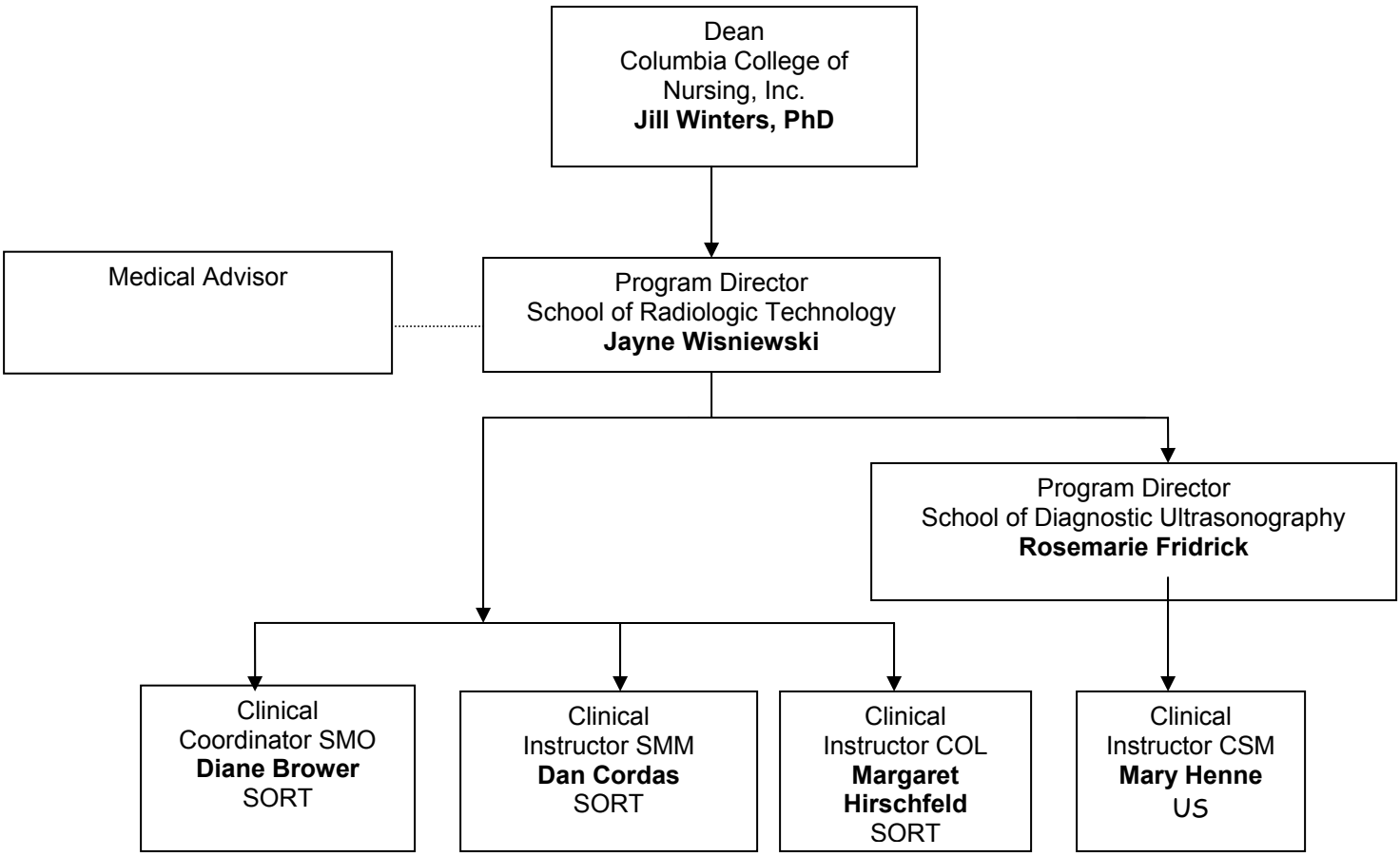
COLUMBIA ST. MARY'S
SCHOOLS OF MEDICAL IMAGING
ORGANIZATION CHART – AUGUST 2008



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Use of time in the Clinical Setting

Students are expected to make good use of their time while in the clinical setting. During slow periods, the student should partake in one of the following:

A. Practice simulated procedures with other students. Ask the CI or an RT to help, if necessary.
B. Stock additional supplies whenever necessary
C. Clean the equipment and general area in which they are assigned.
D. Check what other procedures are scheduled for your assigned area and familiarize yourself with the procedure by reviewing your notes and positioning manual.
E. Go over film critique with the CI to complete your competency.
F. Study independently in your assigned room.

If the patient volume is slow, please check with the floor supervisor if there are patients to be done. Do not sit in your assigned room for hours without checking the work area. Periodically come out of your assigned room to see what can be done. Students may not congregate in the work areas.

Clinical Lab Rules

Clinical lab will be held at all three campuses, attendance is mandatory. Missed lab time cannot be rescheduled. Labs will be held once per week. Labs are designed to let the student practice positioning on one another in an x-ray room, each student will have the opportunity to position each other for the exams they are learning in the classroom setting. The CI will demonstrate an exam, and then the student's will practice on each other.

The following rules will apply while in the lab setting:

1. The student should have their procedures pocket guide with them.
2. The student must have their procedures class notes.
3. The student must be prepared for each lab session. (For example, have whatever textbooks or notes may be helpful to you).
4. The student must have their lead markers and film badges at all times.
5. Disruptive behavior or non-participation will not be tolerated during lab. Students not complying will be asked to leave the lab.
6. Arrive to labs on time.
7. Labs are a privilege, so plan on participating. No homework allowed in labs.
8. Labs are to enhance your positioning skills so utilize the time wisely.
9. PRACTICE, PRACTICE AND PRACTICE.

Uniforms

The student uniform shall be professional in appearance and conform to the guidelines set for the clinical education sites. Your appearance has a strong influence on how you are perceived by patients and staff. Please ensure that your scrubs are clean and not wrinkled. Appropriate apparel is described below:

The color of scrubs chosen for the school is ceil blue. Students should wear solid ceil blue scrub tops. White T-shirts long or short sleeved; are only acceptable if they are worn under a scrub top. Pants should be solid ceil blue. Pants should be uniform-type and thick enough so that undergarments cannot be easily seen through the material. Undergarments are to be flesh-colored or white. Students may wear ceil blue lab jackets in short or long sleeve styles. Under no circumstances should sweatshirts or sweaters be worn over scrubs during clinical rotation.

Shoes should be white leather work or athletic style. Navy blue or white clogs may also be worn. Shoes are to be worn with white socks. Students arriving at the clinical education site in inappropriate dress will be advised to return home for proper clothing. Violation of the dress code will result in a deduction from the clinical grade.

Hospital surgical scrubs are the property of the hospital. The purpose of these garments is to provide clean work garments for persons entering surgery. Students assigned to the surgical unit must wear hospital scrubs. It is also recommended that when a student is assigned to a second shift rotation that they also wear surgical scrubs. Any student wearing hospital scrubs instead of their uniform will receive a deduction from their clinical grade on the first occasion. They will be dismissed from the clinical site on subsequent occasions.

Identification

All students shall wear an identification badge, plainly visible at all times. The school provides identification badges for all students. The badge allows access to clinical education sites, classroom and computer labs at the College of Nursing. If the badge is lost or damaged, you will be required to have it replaced. Contact the Security Department at St. Mary's Milwaukee, Columbia, or St. Mary's Ozaukee Campus. There is a replacement fee and it will be the responsibility of the student to pay the fee. Failure to wear your identification badge will result in a clinical education grade deduction and being sent home to retrieve it. The time missed will have to be made up prior to the end of the semester.

Personal Appearance and Health

Uniforms shall be clean and ironed.
Hair should be clean and worn conservatively. Bangs should not be in the eyes. Hair below shoulder length must be tied back. Beards, mustaches, and sideburns must be well trimmed and neatly styled. Designer stubble is not acceptable.
Makeup may not be used excessively.
Earrings are limited to no more than two per ear.
Facial/tongue piercing is not allowed.
Cologne/perfume should not be worn because sick patients are hypersensitive to odors.

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Personal appearance guidelines are based on psychological, hygienic and safety precautions for patients and students. Jewelry and fingernails can harbor bacteria and spread disease to other patients or yourself:

One ring and one wristwatch may be worn.
Bracelets may not be worn.
Necklaces should be worn inside the top garment.
Earrings may not dangle or be of the hoop-type.

Fingernails should be short. Nail polish clear or neutral and free of chips. False fingernails are proven carriers of disease and may not be worn during clinical assignment.

The school reserves the right to request a student to remove any article deemed to be hazardous to the patient or others before they are allowed to participate in patient care.

Personal Hygiene

All students shall maintain acceptable levels of personal hygiene. Students and their clothing must be clean to maintain medical asepsis and to avoid offending patients and others with whom he or she may come in contact. Uniforms must be clean. Shoes will be clean.

To avoid spreading diseases to yourself or others, hands should be washed:

1. Before and after each patient contact.
2. after using the bathroom
3. with every contact with body fluids
4. before you eat or drink anything in the clinical setting

Avoid touching your hair or face during patient procedures. Do not bite your fingernails or place your hands in your mouth during a patient procedure. Remove garments worn in patient procedure rooms promptly when you get home and deposit them directly into a hamper.

Exposure or Contraction of Communicable Disease

The occupational health nurse shall notify any student who has been exposed to a communicable disease in the clinical education site. This information will be obtained from patient records. It is important that the student initial the x-ray requisition of each patient they meet. The clinical education site will assume responsibility for any prophylactic treatment required.

If students arrive at school or in the clinical education site with any indications of infectious disease, they will be required to visit the occupational health nurse before they encounter patients or staff. With a non-occupational associated disease, the student will be advised to visit his or her own physician.

The school reserves the right to remove students from the clinical setting at any time they are deemed hazardous to the care of the patients or others. Students that have an illness that may be contagious will be asked to report to occupational health for evaluation before they may be involved in patient care.

Time Off in the Clinical Setting

All missed clinical time must be made up. If a student requires clinical time off, they will need to contact the Clinical Coordinator to ask permission. If the time-off is approved, you will fill out a change of clinical time slip prior to the requested absence and give this to your Clinical Instructor. The Clinical Instructor will sign the request. Clinical time missed will have to be made up prior to the end of the semester proficiency test. If this is not complied with, the student will receive a zero for their attendance on the end of semester student evaluation. You are not allowed to bank time prior to a known vacation. Any time taken off will need to be made up **after** the vacation.

CLINICAL GRADING POLICY

Every semester the student will receive a clinical grade. The clinical grade will be calculated as follows:

40% of the grade based on Clinical Instructor Evaluation
40% of the grade is based on Clinical Competencies completed
20% of the grade is based on Rotational Evaluations filled out by the Technologists.

RADIATION SAFETY POLICIES

All students shall practice radiation safety procedures in protecting themselves, patients, and other personnel from unnecessary exposure. Each student is individually responsible for implementing proper radiation protection procedures.

1. All departmental rules and regulations governing radiation workers are to be followed to the letter whether it be Nuclear Medicine, Radiology, Radiation/Oncology Therapy, Cardiac Catheterization Lab, or Nursing Units involved with one form or another of ionizing radiation, such as surgery, G.I. Lab, etc.

2. Specific rules and regulations unique to individual departments listed in this procedure are to be enforced by that department's administration and technical supervisors.

3. In the Department of Radiology, Cardiovascular Lab or Nursing, students who are normally involved with fluoroscopy procedures will:
    A. Not assist in the performance of fluoroscopy or other radiology procedures unless they are protected by a wrap-around lead apron to cover the abdominal/pelvis area totally from all sides.
    B. Not to assist in the holding of patients for the performance of any procedure involving ionizing radiation.

Exposure of all individuals to radiation must be kept as low as reasonably achievable (ALARA concept).

Students have the right to refuse to perform tasks that are in direct conflict with the ALARA concept. Students may not expose any person to radiation without a valid requisition authorized by a physician.

Radiation Monitoring

All radiation workers are issued an appropriate personnel radiation exposure monitoring device as soon as practical after entering the clinical setting. These radiation exposure-monitoring devices are changed on a quarterly basis

Each student shall be issued a personnel radiation monitor (film badge). The student is responsible for wearing the film badge at all times during clinical education. The badge is to be worn at collar level. If the student is wearing a lead apron, the badge should be worn at collar level outside of the apron. The badge is to be changed quarterly.

Film badges should be stored in a place designated by the clinical instructor when not in use. They should not be taken from the clinical education site except when scheduled to rotate to another clinical site. If a film badge is lost, damaged, or accidentally exposed to radiation, report this to the Clinical Instructor and Clinical Coordinator immediately. If the film badge is lost, the student will be given a temporary replacement for that quarter.

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Film Badge Reports

Quarterly film badge reports shall be posted in the classroom. All students are expected to check and initial the quarterly report when it is posted. The student is expected to be aware of his or her quarterly dose. Any student who receives a radiation exposure reading in excess of normal standards will be required to meet with the hospital physicist for consultation.

Cumulative Exposure Reports

A cumulative radiation exposure summary shall be maintained for all program graduates. This is part of the graduate's permanent record. Graduates or employers may request this information to assure continuity of radiation exposure records.

Pregnancy Policy

The student is not legally obligated to inform the Program Director that they are pregnant. If the student does not disclose the pregnancy, the school does not acknowledge the pregnancy. The following outline will be used as the determined course of action, should a student disclose that they are pregnant at anytime throughout their education.

1. If the student wants the pregnancy to be recognized, they must submit a completed pregnancy disclosure form to the Program Director and Radiation Safety Officer.

2. Upon disclosure of the pregnancy, the student will be issued an additional personal radiation exposure monitoring device to be worn at waist level. This is to record any reading to the fetus. This device must be worn under the approved lead apron.

3. Upon completion of the pregnancy, the student will be provided with a cumulative dose reading of the device issued to the fetus.

4. All students that are pregnant must sign a release (following) signed by their Doctor to verify any restrictions

The main desire of the regulations and protection codes established by the federal and local governments is to see that "the dose equivalent limit to the fetus from occupational exposure of the mother should not exceed 0.5 Rems during the entire gestational period."

Rev. 9/06

PREGNANCY DISCLOSURE FORM

I, _____, a student in the Columbia St. Mary's School of Radiologic Technology, am pregnant and with the permission of my doctor may continue my regular assigned duties. I am currently working in an area where radiation is used and agree to continue to work with the understanding that I will use the strictest protective procedures, such as, use of lead aprons, gloves and the judicious use of distance, as protective measures against scatter and/or primary radiation. In addition, I acknowledge that it is my responsibility to seek medical advice on this matter and have been informed of the risk relative to pre-natal radiation exposure.

I hereby release and absolve Columbia St. Mary's Hospital and the School of Radiologic Technology from all claims my unborn child or I now have or may have relative to this matter of radiation exposure.

_____ _____

Student Date

_____ _____

Program Director Date

_____ _____

Student's Physician Date

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CLINICAL FORMS

Clinical Competency Evaluation Form - This form is used to confirm that you have successfully performed the appropriate radiographic procedure under the supervision of a RT evaluator. This form must be presented to the RT **before** the student begins the procedure. If the student fails the competency examination, it will be noted on the validation form.

Student Evaluation Form - The supervising RT (The RT that the student has worked with the most in that week) or CI in your assigned clinical area fills out this form. One evaluation form per week is necessary. The RT will complete the form and hand it directly to the CI; it is not to be returned to the student, the CI will then discuss the comments with the student.

Change of Clinical Time – This form is used to advise the CI when the student is requesting time off, or to make-up missed time or working over your normal clinical time e.g. staying late to finish a patient. This form should be completed and signed by the CI. On the day, that you come in to make-up the time, the form should be signed by an RT confirming that you were present on that day.

Student Incident Report – This form is used to record any unusual occurrence. A student or RT. can complete it. It can be used for complaints, compliments, injuries, or anything that the school needs to know regarding your clinical progress.

Blood Pressure and Venepuncture – these forms are to be completed prior to graduation verifying that the student has performed 20 venepunctures and has taken 10 blood pressures. A maximum of ten venepunctures may be performed on the simulation arm but a minimum of 10 must be performed on a patient.

COLUMBIA ST. MARY'S SCHOOL OF RADIOLOGIC TECHNOLOGY
CLINICAL HANDBOOK

I acknowledge that I have received the Clinical Handbook and I understand that it is my responsibility to read and comply with the policies contained in this handbook and any revisions made to it. I confirm that I have read this handbook in it's entirety and understand all the policies contained within. I also understand that it is my responsibility to keep this handbook at the clinical site that I am assigned to at all times.

Student Signature _____

Date _____

Faculty Signature _____

Date _____

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