

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: RADG 213 Department: Radiography

Course Title: Clinical Practicum 1 Semester: Spring Year: 1997

Objectives/Competencies

Course Objective	Competencies
<p>1. At the completion of the first semester of clinical experience, the student will be able to perform the following secretarial procedures</p> <p>2. At the completion of the first semester of clinical experience, the student will be able to perform the following darkroom procedures:</p>	<p>1. Collect an x-ray request form for each patient and verify that all information is complete and accurate.</p> <p>2. Prepare or update a film envelope (jacket) indicating all pertinent information to be used for filing radiographs and radiologists' reports for future reference.</p> <p>1. Turn on automatic processor, adjust water temperature controls until water temperature reaches proper level. When water has reached proper temperature, activate "main drive" and "dryer" controls.</p> <p>2. Report malfunction in the automatic processor noting difficulties which might assist in locating cause of malfunction.</p> <p>3. Clean outside of cassette on a regular basis with a disinfectant to limit the possibility of contamination.</p> <p>4. Clean screens and cassettes on a regular basis to remove dirt, paper or other artifacts.</p>

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<p>3. At the completion of the first semester of clinical experience, the student will be able to perform the following maintenance procedure:</p> <p>4. At the completion of the first semester of clinical experience, the student will be able to perform the following radiation protection procedures</p>	<p>5. Develop exposed film by unloading cassette and feeding film into automatic processor, or by manual processing, or by loading cassette into daylight loader.</p> <p>6. Reload cassettes for later use by selecting proper film of proper size and type in the darkroom or by using daylight loader, and place in designated area.</p> <p>1. Report malfunction in x-ray unit noting difficulty, which might assist in locating cause of malfunction.</p> <p>1. When indicated, place a gonadal shield over male and female reproductive organs prior to taking a radiograph.</p> <p>2. Stand behind screen, leaded wall, or wear a lead apron while activating x-ray equipment, to provide protection from ionizing radiation.</p> <p>3. Wear a monitoring device while on duty to obtain a record of radiation exposure over a given period of time.</p> <p>4. Place a protective shield over radiosensitive organs (other than gonads) in or near the primary beam prior to exposure, when repeated examination or high dosage levels are required for procedure.</p> <p>5. Remove all unnecessary persons from area prior to taking x-ray to reduce risk of exposure to radiation.</p> <p>6. Collimate beam to the area to be radiographed to limit radiation exposure to the area of interest.</p>

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<p>5. At the completion of the first semester of clinical experience, the student will be able to:</p>	<ol style="list-style-type: none"> 1. Properly position patient, utilizing body landmarks, to achieve the best demonstration of the affected body part by adjusting table, radiographic and/or fluoroscopic equipment and film cassette using knowledge of anatomy, standard radiographic positions and departmental protocol. 2. Use immobilization devices, when indicated, to prevent movement by patient, and to insure proper patient positioning during film exposure. 3. Tape lead markers to margin of film cassette indicating time, body position (e.g. right, left, RAO, LAO) etc. 4. Select film, screen and/or grid combination appropriate for the part to be radiographed. 5. Collimate beam to limit radiation exposure to the area of interest to improve image quality. 6. Give patient appropriate breathing instruction (i.e., inspiration, expiration) prior to making exposure. 7. Store film in a manner which will reduce the possibility of accidentally exposing or re-exposing film. 8. Place film cassette into correct and centered position (erect, tabletop, or Bucky tray). 9. Remove all radiopaque materials (i.e. jewelry, hairpins, contrast materials) from patient and/or table that could interfere with the quality of the radiograph. 10. Assist the patient onto or off of the table or stool to avoid patient injury, using proper body mechanics and “lifters” to avoid personal injury.

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<p>6. At the completion of the first semester of clinical experience, the student will be able to perform the following patient care procedures:</p>	<p>11. Locate proper positioning of portable radiographic or fluoroscopic unit required for achieving desired view, using tape measure to get proper focal film distance.</p> <ol style="list-style-type: none"> 1. Question female patients of child-bearing age about menstrual cycle and/or possible pregnancy to alert radiologist and/or referring physician, using knowledge or "10-day-rule." 2. Prior to injecting an iodinated contrast medium, elicit such information about the patient which might indicate an increased risk of reaction using patient's chart, x-ray film jacket, and/or by questioning patient. 3. Assist radiologist with injection of contrast medium using appropriate aseptic technique, according to department protocol. 4. After injection of iodinated contrast medium, observe patient to spot adverse reactions to the medium using knowledge of common reactions. 5. Prepare barium mixtures (or water soluble mixtures) for oral or rectal administration by combining properties as directed. 6. Introduce barium (or water soluble mixtures) into patient according to procedure indicated by physician. 7. Question patient about the presence and location of any pain he/she may be experiencing to determine if additional radiographic views are needed - as well as any modification that might be useful - using a knowledge of

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<p>7. At the completion of first semester of clinical experience, the student will be able to:</p> <p>8. By the end of the second semester of clinical experience, the student, in addition to the objectives achieved for the first semester, will be able to:</p>	<p>the department protocol for a given procedure.</p> <p>8. Clean, wash, disinfect and/or sterilize facilities and equipment and dispose of contaminated items in preparation for next examination.</p> <p>9. Use sterile technique as required to help prevent patient infection.</p> <p>10. Maintain medical equipment attached to patient (IV's, oxygen masks, etc.) during the radiographic procedure, using knowledge of hospital equipment and procedures.</p> <p>11. Transport in-patients to and from hospital rooms using knowledge of hospital procedure and patient handling.</p> <p>1. Perform at least three clinical objective evaluations utilizing the mandatory examination list outlined in the Student Handbook.</p> <p>2. Locate Emergency equipment and supplies kept in the department.</p> <p>3. Recite emergency codes (phone number for medical emergency and fire code) of the hospital and department.</p> <p>1. Describe quality control procedures performed in the department</p> <p>2. Perform at least six clinical objective evaluations as listed in the Student Handbook.</p>

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