LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:
This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):
Please check with the LCC bookstore http://www.labette.edu/bookstore for the required texts for this class.

COURSE NUMBER: RADI 113
COURSE TITLE: SIMULATIONS IN RADIOGRAPHY I
SEMESTER CREDIT HOURS: 1
DEPARTMENT: Radiography
DIVISION: Health Science
PREREQUISITE: RADI 103 Radiography Procedures I
REVISION DATE: 11/2014

COURSE DESCRIPTION:
Laboratory study of the radiographic procedures used to visualize the anatomical structures of the upper and lower chest, abdomen, contrast studies. Laboratory setting once a week.

COURSE OUTCOMES AND COMPETENCIES:
Students who successfully complete this course will be able to without references and with 86% accuracy:

1. Demonstrate proper use of radiographic equipment and accessories.
   - Demonstrate Manipulation of the Radiographic Equipment
     - Radiographic tube
       - Center the tube to the table
       - Rotate the tube stand.
       - Angle the tube longitudinally.
       - Raise or lower the tube height.
       - Move the tube longitudinally.
       - Rotate the collimator head.
       - Open and close the collimators.
       - Turn on centering light.
     - Radiographic table
       - Demonstrate tabletop motion.
- Operate tabletop locks.
- Move the bucky apparatus.
- Secure film in bucky tray.
  - Generator control panel
    - Adjust Major KVP.
    - Adjust Minor KVP.
    - Adjust Voltage Compensator.
    - Adjust MA.
    - Adjust radiographic timer.
    - Locate Reset Button.
    - Locate Bucky Switch.
    - Demonstrate MaS button.
    - Operate the Rotor Trigger.
    - Operate the exposure button.

2. Energize the radiographic equipment.

- Turn on switch #1 in the main breaker box.
- Turn on radiographic equipment, generator switch.
- Make four warm up exposures, no film, using the following factors:
  A. 100 Ma 1/20 Sec. 60KV
  B. 100 Ma 1/10 Sec. 70KV
  C. 200 Ma 1/10 Sec. 70KV
  D. 200 Ma 1/4 Sec. 80KV

3. Critique radiographs of the chest and abdomen.

- Analyze finished radiographs of the Chest and Abdomen.
- Proper positioning of anatomical part.
- Proper technical factors.
- Label radiographs for anatomy and positioning.

4. Comprehend those radiographic procedures used to demonstrate the upper extremity.

- Perform the Selected Radiographic Examinations of the Upper Extremities.
- In a simulated environment the learner will, without radiation demonstrate the examination of the following:
  o Thumb - AP, Obl., Lat.
  o Fingers - PA, Obl., Lat.
  o Hand - PA, Obl., Lat.
  o Wrist - PA, PA Obl., Lat., AP Obl.
  o Forearm - AP, Lat.
5. Critique radiographs of the upper extremity.

- Analyze finished radiographs of the upper extremities.
- Proper positioning of anatomical part.
- Proper technical factors.
- Label radiographs for anatomy and positioning.

6. Comprehend those procedures used to demonstrate the lower extremity.

- In a simulated environment the learner will, without radiation demonstrate the examination of the following:
  - Toes - AP, Obl., Lat.
  - Foot - AP, Obl., Lat.
  - Calcaneus – Semi-axial, Lat.
  - Ankle - AP, Obl., Lat.
  - Lower Leg - AP, Lat.
  - Knee - AP, Obl., Lat., Tunnel
  - Patella - Axial
  - Femur - AP, Lat.

7. Critique radiographs of the lower extremity.

- Simulate examinations of the lower extremities in the laboratory, with radiation and a phantom.
- Analyze finished radiographs of the lower extremities.
- Proper positioning of anatomical part.
- Proper technical factors.
- Label radiographs for anatomy and positioning.

8. Comprehend those radiographic procedures used to demonstrate the pelvic girdle.

- In a simulated environment the learner will without radiation demonstrate the examination of the following:
  - Pelvis-AP
  - Hip-AP, Frog Lateral

9. Comprehend those radiographic procedures that require contrast media.

- In a simulated environment the learner will without radiation demonstrate examination of the following contrast studies:
  - IVP - KUB, Cone down Kidney and Bladder, Oblique Kidney.
  - UGI - KUB, AP - PA, RAO, Right Lateral.
LABORATORY REGULATIONS

1.0 Students are not allowed to operate equipment without an instructor present.
2.0 Students are not to irradiate themselves, fellow students, or friends.
3.0 Students must wear their own film badges at all times and must not remove them from the laboratory area.
4.0 Anyone exposing or altering a film badge, their own or another student’s will be subject to disciplinary action.
5.0 Students must be certain there is no one in the radiographic room prior to making an exposure. NO EXCEPTIONS!!
6.0 Doors on the radiographic room must be closed for all exposures.
7.0 Only authorized personnel are permitted in the laboratory area, when the radiographic equipment is energized.
8.0 Exposures made must be within safe operating limits of the radiographic equipment (see tube rating chart).
9.0 No eating, drinking, or smoking in the radiographic room.