

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.

<u>COURSE NUMBER:</u>	RADI 113
<u>COURSE TITLE:</u>	SIMULATIONS IN RADIOGRAPHY I
<u>SEMESTER CREDIT HOURS:</u>	1
<u>DEPARTMENT:</u>	Radiography
<u>DIVISION:</u>	Health Science
<u>PREREQUISITE:</u>	RADI 103 Radiography Procedures I
<u>REVISION DATE:</u>	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:
 - Thumb - AP, Obl., Lat.
 - Fingers - PA, Obl., Lat.
 - Hand - PA, Obl., Lat.
 - Wrist - PA, PA Obl., Lat., AP Obl.
 - Forearm - AP, Lat.
 - Elbow - AP, Int. Obl., Ext. Obl., Lat.

5. Critique radiographs of the upper extremity.

- phantom.
- 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.