This course is a continuation of previous clinical experiences and objectives. The student is expected to maintain skill and proficiency in acquired clinical skills. Self-reliance in habits is emphasized. Students are expected to develop speed, high standards of quality, and affective behaviors consistent with a professional radiographer. The student is assigned to the clinical facility for 21-28 hours per week with all students completing 251 hours by the end of the semester. Scheduling will include radiographic rooms, portables and surgery, and off-hour rotations.

The student will complete 48 hours of rotations on evenings and weekends in accordance with current program policy. During this semester students will be required to complete rotations through other affiliates and special assignments.

Emphasis this semester is placed on skills in skull radiography, developing proficiency in emergency situations, and with atypical patients. Film critique, radiographic anatomy, and C-arm procedures are also part of the objectives.

Students are allowed to perform procedures in which they have achieved competency with minimal supervision.

Text and Materials – The textbook is suggested for reference but it is not required.
- Ethical and Legal Issues for Imaging Professionals, 2nd edition, Towsley-Cook/Young
  - ISBN 9780323045995
- A computer with internet access
- Computers are available for student use in the:
  - Learning Lab TC 112
  - Media Center MPC 155

COURSE GOALS:
1. The student will serve patients while demonstrating positioning skills, knowledge of protocols, exposure factors, body systems, radiation protection, and communication skills while performing procedures on atypical patients.
2. The student will be able to demonstrate decision making and problem solving skills by proper evaluation of the patient, adjusting technical factors and/or equipment for common pathologic conditions: casts, body habitus, trauma, or pediatric patients.
3. With Direct Supervision the student will utilize problem-solving skills to make technique decisions based on the exposure index on each image.
4. The student will be able to visualize the exam, organize the information, and pre-set the examination room by selecting proper equipment and materials that may be needed prior to admitting the patient to the examination room.
5. The student will be evaluated on his/her creative thinking ability and reasoning skills while performing a radiographic examination on a trauma, difficult, or uncooperative patient according to proper safety techniques and radiographic principles.
6. The student will demonstrate a basic understanding of digital image manipulation:
   a. Density and contrast changed by window and leveling
   b. Adding text to images
   c. Image rotation and flipping
7. The student will be able to identify anatomy as well as common pathologic or abnormal conditions on a radiograph. This will be demonstrated as part of their task analysis and film critique lessons.

8. The student will perform portable and surgical radiography. They will demonstrate creative thinking ability, proper decision making and problem solving skills by patient evaluation and...
   a. Demonstration of knowledge and expertise in adapting positioning skills for bedside and surgical radiography.
   b. Adjustment of technical factors within the limitations of the mobile equipment for body habitus, pathology, presence of a wet or dry cast, etc.
   c. Demonstration of knowledge in radiation protection by using proper collimation, distance, and protective shielding for both patient and technologist.
   d. Demonstrating proper aseptic technique when preparing mobile equipment for a sterile surgical procedure or performing an examination on an isolation patient.

9. The student will under direct supervision, assist a technologist with a C-arm procedure that will include preparation and setting up the equipment, manipulation of the c-arm during the procedure, taking and storing images, and removal of the equipment from the work area.

10. Students will rotate through special assignments and other affiliates, while assigned to these areas the students will be able to:
   a. Show punctuality and availability for patient examinations
   b. Demonstrate an interest in the area of rotation
   c. Participate as much as is allowed in the imaging process
   d. Effectively communicate/interact with others
   e. Demonstrate a basic understanding of the examinations performed in the specialty area

11. During off-hour rotations the student will demonstrate, with minimal supervision, the following tasks:
   a. Radiography of difficult or uncooperative patients
   b. Make independent decisions concerning technique, positioning, restraining devices, and film quality
   c. Build self-reliance habits

12. The student will work under indirect supervision which will help them become an active team member in the radiology department. This will also build their self-esteem and self-management skills.

13. During weekly classes and Blackboard assignments students will build an awareness of ethical and legal issues in imaging sciences. They will use these skills to solve problems and demonstrate critical thinking.

14. Students will work with diverse populations.

15. Four written exams will be administered by the clinical instructor. These will include two (2) film critique assignments, one (1) syllabus quiz on Blackboard, and one (1) ethics test.

**COURSE OBJECTIVES:**

By the end of the summer session the student will:

1. Successfully complete 6 Task Analysis from the following categories.
   - Difficult or atypical patient (Trauma, Multiple exams, Lumbar puncture)
- Contrast (Esophogram, UGI, Small Bowel, BE, IVU, arthrogram)
- Head (Skull, sinus, facial bones, mandible, CT Brain)
- Spine
- Portable radiography (Chest, abdomen, or extremity)
- Pediatric or geriatric (Chest, abdomen, or extremity)
  Pediatric \( \leq 6 \) years old
  Geriatric \( \geq 65 \) years old
- C-arm Procedure (once the C-arm Competency Form is completed)

This is a list of exams that qualify for each category. It is not comprehensive and will be determined at the discretion of the clinical instructor.

All task analysis are at the discretion of your clinical instructor; they may choose the examinations you are to perform. Part of the task analysis process is to monitor and correct performance if repeat radiographs are required. **Students may be given the opportunity to repeat 1 task analysis during the summer semester under the following conditions:**
- Repeating the task analysis will change the student’s letter grade for the semester
- Repeating the task analysis will not prohibit another student from completing the required Task Analysis.

2. Use critical thinking skills to critique selected images for the following factors:
   - technical quality
   - positioning
   - proper collimation
   - artifacts/identification markers
   - anatomical structures demonstrated

3. Use critical thinking and problem solving skills to solve ethical and legal dilemmas discussed in various textbooks covering ethical and legal issues for imaging professionals. Students will have at least one ethics assignment which may be assigned through Blackboard.

4. Receive two **Clinical Behavior** Evaluations during the summer semester. They will demonstrate affective skills needed by a professional like: integrity, time management, sociability, and responsibility.

5. Demonstrate cognitive skills, critical thinking and problem skills on film critique assignments. Students will have at least two film critique assignments which may be assigned through Blackboard.

6. Rotate through **Special Assignments**. At least one of the task analysis should be accomplished during the Special Assignment. This area includes evenings and weekends.

7. Attend scheduled student Radiologic Technology meetings on the LIT campus

**GRADING:**
Grades for this course will be determined from the following items:

- **43%** Task Analysis
- **43%** Clinical Behavior
- **10%** Four (4) Written Tests including: (2) film critiques, (1) syllabus quiz assigned on Blackboard, and one (1) ethics test.
- **4%** Specialty Rotation Forms in special assignment areas.

(Students will receive a “0” zero on missing Specialty Rotation Forms)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>95-100</td>
</tr>
<tr>
<td>B</td>
<td>87-94</td>
</tr>
<tr>
<td>C</td>
<td>80-86</td>
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<tr>
<td>D</td>
<td>70-79</td>
</tr>
<tr>
<td>F</td>
<td>0-69</td>
</tr>
</tbody>
</table>

Failure to successfully complete the required objectives will result in an incomplete (I) in the clinical course. An incomplete must be removed by the end of the next long semester or the (I) will be recorded as an (F) and the student will be required to repeat the clinical course.

*** A minimum of 80% is required for successful completion of this course***

No task analysis may be repeated after the date assigned by the instructor or after the last clinical behavior report. Special Assignment Evaluation forms must be turned in by the assigned date or a grade of zero “0” will be given for that evaluation.

**CLINIC POLICIES**

1. Identification badges must be worn at all times with name CLEARLY visible.
2. Students will abide by ALL handbook policies.
3. Student’s failure to abide by handbook policies may result in the clinical grade being lowered one full letter for each occurrence.

**BLACKBOARD**

This course is Web Enhanced. All students will be required to login to BLACKBOARD once a week on Thursday to check e-mail and complete assignments. Assignments will be posted throughout the semester. It is your responsibility to meet the deadlines.

**Late work will not be accepted. If you are unable to meet a deadline in this course send an e-mail and we will discuss your options.**

**ATTENDANCE POLICY:**

1. For students in the radiology program to acquire the necessary clinical competency outlined in our curriculum, it is necessary that students complete all assigned clinical hours. Therefore, students missing any clinical hours will be required to make-up time missed at the end of the semester. Time will be make-up after the last scheduled clinic day or at the discretion of the clinical instructor. Students not completing make up time before the grades are due for the semester, will receive an incomplete (I) in the clinical course.
2. Any absence while assigned to a specialty area or off-hour rotation will require the clinical instructor to adjust the clinical schedule to assure all students meet the accreditation guidelines. For example, a student missing a day when assigned to an evening shift will have one of the future clinical days changed to an evening shift. The schedule adjustments will be made by the clinical instructor at their discretion.
3. Students who have tardy time totaling at least one (1) hour will be required to make-up all the missed time at the end of the semester. When a student is tardy he/she will not be allowed to make-up the time that day. If a student leaves clinic early for any reason, it will be added to the total tardy time.
4. If a student is unable to arrive at clinic within one hour of their scheduled time they will not be allowed to attend clinic on that day.
5. Students who miss a total of 24 hours during a Fall or Spring semester or 21 hours in the Summer semester will receive a warning with the Disciplinary Action Form (DAF). When a fourth day is missed a DAF will be filled out and the Student’s clinical grade will be lowered one full letter grade. Each subsequent absence may result in dropping of a letter grade pending a review by department committee.
6. Students who exhibit excessive tardiness will receive a warning with the DAF. Further tardies will result in disciplinary action which may include an attendance contract and/or lowering of the student’s clinical grade.

7. Students who fail to follow proper call in procedures when unable to attend clinic will have their clinic grade lowered one full letter grade for EACH day they fail to follow proper call in procedure.

8. Extenuating circumstances will be taken into account.