RDTK 2810
CLINICAL EDUCATION V
FALL 2006

LABORATORY HOURS: 18.5    CREDITS: 5

CLASS TIME: Mon./Tues.- 7:30 A.M.-3:30 P.M.- WMC (Or as scheduled)
    Wednesday- 7:30-11:00 Clinical Site Visits
    Thursday- 12:45-2:15pm
    Monday/Tuesday/Wednesday times and days may vary according to rotation
    schedule

INSTRUCTOR: Rick Johnson

OFFICE: HS 118-A

OFFICE PHONE: 268-2718

OFFICE HOURS: Wednesday 12:15-2:15pm, Thursday 9-11am

METHODOLOGY:
Lecture, Discussion, Demonstration, and Hands on clinical experience

STUDENTS RIGHTS:
Please refer to the Casper College Student Conduct and Judicial Code for information
concerning your rights and responsibilities as a Casper College student.

REQUIRED TEXTS:
1) Textbook of Radiographic Procedures, Bontrager, Sixth Edition

2) Trauma and Mobile Radiography, Drafke, Michael W.F.A. Davis Company-To be used as
    a reference device.

COURSE DESCRIPTION:
This course is designed to be a practical learning experience in the clinical radiographic
environment. Students are required to participate at prescheduled time periods and practice
their radiographic skills. An emphasis on skull, facial, nasal, mandible, obits and sinus
radiography as well as trauma radiography, CT procedures, pediatrics studies, Arthrograms
and Myelography will be the focus of this course.
GENERAL OBJECTIVES:

1. Competency evaluations - A minimum documentation of entry level competencies in at least eight exams. A competency grade below 85% will result in a “0” until the competency is redone with a passing grade. Once the student receives an 85% or better, the passing grade will be averaged with the failing grade if completed during the same semester otherwise it remains a "0". A competency exam film critique form is required for each competency exam completed by the student. The competency exam will be considered incomplete if the film critique form is not turned in and the student will receive a 0 grade.

2. Quality Assurance - The student will maintain a functional QA program during assigned three week rotations. Completed assignments must be submitted in typing to the Clinical Education Coordinator at the end of each rotation period. A grade of "0" will be given for each project turned in after the due date.

3. Supervisory evaluation - Final supervisory evaluations will be conducted by the Clinical Education Coordinator to evaluate students professional attributes. The supervising technologist following each assigned rotation will conduct rotational evaluations. It is the students responsibility to be sure these evaluations are completed by the Technologist they have worked with the most throughout the rotation, a "0" grade will be given for each evaluation not turned in following an assigned rotation. As a second year student, you are to gain as much expertise as possible in your assigned area. This is to be accomplished by having the student do the procedures in a solo capacity in that area especially during the second week of the rotation. Your rotational evaluation will be conducted on how you perform during the second week. These evaluations include but are not limited to motivation, initiative, attitude, participation, room prep and upkeep, performance both quality and quantity.

4. Simulation- Skull and facial radiography simulations will take place this semester.

5. The Clinical Education Coordinator will conduct simulation lecture, labs and testing. This lecture period will include film critique, and reviews of trauma radiography and skull/facial studies. Hands on practice will take place as well. CT procedures will be reviewed. A CT lab will be held and all students are required to attend. Pediatrics will also be covered.
6. The student will be required to be familiar with a specific number of skills throughout the semester. The following skills are required for Clinical Education V.
   a. Fluoro set-up for room 4
   b. Use of portable equipment, C-arm, and surgery procedures
   c. Tomography
   d. Use of room control panel/table-tube controls
   e. Surgery Cystography room set-up and manipulation
   f. CT procedures
   g. Specialty rotations
   h. Trauma
   i. Pediatrics

7. Each student will be required to complete a room objective form for each rotation. This must be signed by the supervising technologist and turned into the Clinical Education Coordinator at the end of each rotation. If an objective sheet is not turned in the rotation will be considered incomplete and the student will receive a "0" grade for that rotation.

8. It is the philosophy of the Radiography Faculty at Casper College that for students to gain the utmost from the clinical experience attendance is essential. Students will be given one absence day, which can only be made up at the end of the semester. Any additional missed days will result in a 3% per day deduction from their final clinical grade. Absence from required clinical in-services and simulation lab/lecture/testing will be considered an unexcused absence and the appropriate deduction will occur.

9. It is the student's responsibility to change film badges by the 15\textsuperscript{th} of each month. Failure to do so will result in lowering of your final clinical grade by one grade point per incident.

10. **All repeats must be supervised by a qualified technologist.** Repeats are to be documented in log book and signed by a Radiographer.

11. **Until a student successfully passes a competency exam with an 85% or better they must have direct supervision while performing exams by a qualified technologist.** Once the student passes the competency exam, indirect supervision is acceptable except during repeat radiographs which require direct supervision at all times. Please see program policies for details.

12. Radiation protection guidelines must be followed during all clinical and lab procedures. These include but are not limited to: proper wearing of TLD, shielding of patients, self, and workers, proper technical factors, etc. See program policies for detailed descriptions.
SPECIFIC COURSE OUTCOMES:

Procedure Comprehension:
During clinical education and simulation the student will:
1. Describe the anatomy visualized.
2. Describe the positions used, in terms of direction of the central ray and part placement.
3. Name the size of film ordinarily used.
4. Name the contrast media, if any used.
5. Describe the preparation of the patient.
6. Identify radiographs of the basic positions.
7. On radiographs, label the anatomic parts.
8. Explain variations in tube-film placement required to compensate the patient's inability to be moved.
9. Explain variations in technique required for various patient types.
10. Explain variations in technique required to avoid motion in uncooperative patients.
11. Demonstrate correct communication skills needed to successfully perform each exam.
12. Demonstrate proper radiation protection measures for each procedure/exam discussed.

Procedure Practice:
1. In the clinical setting the student will:
2. Correctly position the patient, stabilizing or immobilizing as needed.
3. Select the correct film size.
4. Align the x-ray tube to part and film.
5. Adjust the cone or collimator to appropriate field size.
6. Demonstrate the application of necessary protective shielding.
7. Measure the part.
8. Select the appropriate technical factors for patient and film-screen combination.
9. Expose the radiograph.
10. Evaluate the radiograph for accuracy of positioning.
11. Utilize proper radiation protection practices for each exam.
12. Demonstrate effective problem solving and critical thinking skills for all procedures.

METHODS OF EVALUATION AND CORRESPONDING WEIGHT VALUES

1. Clinical competencies 30%
2. QA- Includes: 20%
   QA program
   Evaluations
   Rotation Objectives
   Skills Sheet
3. Simulation 20%
4. Final exam 20%
5. Video assignment 10%
CLINICAL ACTIVITIES AND ASSIGNMENTS-Specific objectives-All clinical assignments are due at noon on the Wednesday following the last day of your rotation. A 10% deduction will occur for each day the assignment is late.

At the completion of Clinical Education V the student will have:

1. Performed a Quality Assurance Program covering testing of equipment, processor and ancillary equipment. - Includes a three-week rotation in an assigned quality assurance area. Projects are to be completed on an individual basis unless otherwise indicated. Following the three-week rotation a typed summary of the project along with QA forms are to be submitted to the Clinical Education Coordinator for grading. In no way is the QA project to interfere with assigned clinical rotation.

2. Completed the assigned Rotation Evaluations - The student is required to have a rotation evaluation following the two weeks in the assigned area. It is the student's responsibility to hand deliver the evaluation form to the technologist they worked with during the second week of the rotation. These forms are to be given directly to the Clinical Coordinator following their completion.

3. Successfully completed the assigned clinical Objectives - Objectives are required for each rotation and must be completed and signed by the attending technologist or instructor at the end of the rotation.

4. Test on at least 8 clinical competencies during the course of the semester. The student must receive an 85% or better on each competency exam. Competency film critique forms are required for each competency exam completed. A 0 grade will be given if both parts of the competency exam are not turned in.

5. Perform a final exam covering positioning and film critique will be given to test the students' knowledge of trauma radiography. Problem solving scenarios will be presented to test the students critical thinking ability and trauma scenarios.

6. Review activities/skills - form must be completed by the end of the semester.

8. Maintain A log book of exams completed by the student listing all exams performed during clinical Education V. All repeats will be documented in the log book and initialed by the supervising technologist to ensure proper supervision.

9. Create an educational Video presentation on the myelogram or arthrogram: Students will be divided into 2 groups and assigned either a myelogram or arthrogram. They will make an educational video as outlined in the handout.

10. Complete a repeat review – Students must evaluate their repeat radiographs each month and keep record in their logbook

11. Demonstrate effective problem solving skills through activities related to trauma radiography.
12. Utilize effective communication techniques with patients and co-workers.

13. Follow radiation protection guidelines as outlined in the program policies.

Last day of withdraw - Withdrawal is not an option from Radiography courses please refer to the Radiography policies.

GRADING SCALE

A= 92-100
B= 83-91
C= 75-82
D= 0-71

ACCOMMODATIONS: It is the policy of Casper College to provide appropriate accommodations to any student with a documented disability. If you have a need for accommodation in this course, please make an appointment to see me at your earliest convenience.

Course Outline Clinical Education V
Class meets Thursday 1:15-2:45

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-31</td>
<td>Review of course objectives / positioning review / vital sign review</td>
</tr>
<tr>
<td>9-7</td>
<td>Skull / Facial Radiography Simulation Lab</td>
</tr>
<tr>
<td>9-14</td>
<td>Skull/Facial Testing</td>
</tr>
<tr>
<td>9-21</td>
<td>Sinus/ Nasal Bones simulation lab</td>
</tr>
<tr>
<td>9-28</td>
<td>Sinus/ Nasal Testing</td>
</tr>
<tr>
<td>10-5</td>
<td>Orbits/ Mandible simulation lab</td>
</tr>
<tr>
<td>10-12</td>
<td>Orbits/Mandible testing</td>
</tr>
<tr>
<td>10-19</td>
<td>Pediatric Radiography</td>
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<tr>
<td>10-26</td>
<td>Introduction to Trauma and Surgical Procedures</td>
</tr>
<tr>
<td>11-2</td>
<td>Trauma Radiography of the Chest/Abdomen: Critical thinking group scenario</td>
</tr>
<tr>
<td>11-9</td>
<td>Trauma Radiography of the Extremities: Critical thinking group scenario</td>
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<tr>
<td>11-16</td>
<td>Trauma Radiography of the Spine: Critical thinking group scenario</td>
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<tr>
<td>11-23</td>
<td>Thanksgiving Break</td>
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</tbody>
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11-30 | Trauma Radiography of the Skull and Facial Bones: Critical thinking group scenario
---|---
12-7 | Putting It All Together: Trauma Radiography
12-14 | Video Presentations

**December 19-22:** Trauma Final exam TBA: This is a comprehensive final that will cover all aspects of trauma radiography. The student will be given a trauma scenario that encompasses all the areas studied during the course. The student will then perform the exams utilizing effective critical thinking skills to create quality radiographs.

**Required Inservices:**
1. Echocardiography orientation
2. CT- Casper Medical Imaging- Will be held in the evening. See course content for dates.
3. Other inservices TBA
4. C-Arm and Surgical Procedures

**SCHEDULE SUBJECT TO CHANGE WITH NOTICE FROM INSTRUCTOR**
Clinical Education V

Video Assignment

The assignment for this course is worth 10% of your final grade. The students will be divided into two groups and each group will be assigned either an Arthrogram or Myelogram exam of which they must make an educational video. The video will include all of the pertinent information regarding the assigned exam including but not limited to the following:

- Indications for the procedure
- Contraindications for the procedure
- Radiographer’s role during the procedure
- Radiologist’s role during the procedure
- Contrast used
- Patient preparation

The class will view the completed videos on December 7. Each student must participate in the making of the video. The assignment will help students to gain a better understanding of these specialty areas. It will also foster collaborative and communication skills in completing an educational video.

By all means HAVE FUN!!!
**Student Name:**

During Clinical Education V the student must complete the following skills and in-services. Upon completion of each skill the student will have the supervising radiographer or clinical instructor initial the appropriate box. The completed form along with the video assignments must be turned in at the end of the semester.

**Video Requirements:** The student is required to view the assigned videos and complete the appropriate test. Attach the completed test to this form prior to turning it in.

<table>
<thead>
<tr>
<th>SKILL</th>
<th>COMPLETION DATE</th>
<th>SUPERVISORY INITIALS</th>
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<tbody>
<tr>
<td>Quality Control Project Assignment</td>
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<td>C-Arm manipulation</td>
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<tr>
<td>Fluoroscopic Set-up And manipulation</td>
<td>Room #4 - Room #1 -</td>
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<tr>
<td>Vital signs practice</td>
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<td>Portable Manipulation</td>
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<tr>
<td>Tomographic Set-up</td>
<td>CMI/Outpatient Center - Room 3 -</td>
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<tr>
<td>Echocardiography In-service</td>
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<td>Computed Radiography Review- CT with manikin</td>
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<tr>
<td>Trauma and Surgical procedures review</td>
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<tr>
<td>CD Review of Cervical, Thoracic, and Lumbosacral Spine critique. Questions will be posed as the CD progresses, briefly answer the questions and attach them to this form.</td>
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<tr>
<td>Video: Atypical Orthopedic Trauma Radiography</td>
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<tr>
<td>Video: Skull and Facial Radiography</td>
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<td>Video: IV Procedures for contrast Media</td>
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<td>Midterm Clinical Evaluation: Clinical Coordinator</td>
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<td>Final Clinical Evaluation with Clinical Coordinator</td>
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To receive credit for this assignment the completed form along with video and CD materials must be turned in at the end of the semester.

**CLINICAL ATTENDANCE POLICY**
1. Emergency absences will be handled on an individual basis, but the clinical instructor must be notified prior to the start of clinical education or simulation lab. The student will also be required to notify the program director by calling the college number and leaving a message indicating the absence. If this procedure is not followed the absence will be considered unexcused. Two or more unexcused absences will result in the student being placed on program probation. Under no circumstances will one student be responsible for reporting the absence of any other student in clinical education.

2. Students are required to be punctual for all clinical and simulation courses. If a student is to be late to clinical education the program director must be notified by phone, as well as the clinical instructor and clinical site. Two or more tardies will result in the student being placed on program probation.

3. Students will not be allowed to schedule an academic course during clinical hours unless program director has been notified.

4. As an incentive to be punctual and to maintain a healthy lifestyle, those students who have been punctual and have attended all clinical and simulation classes will not be required to attend clinical education on the last clinical day prior to finals week of the fall or spring semester, as long as all other objectives of clinical education have been met. If a student misses one clinical day they will be required to attend the last day of clinical prior to finals week. Students cannot make-up the clinical day at any other time during the semester. Any additional absences of clinical or simulation will result in a 3% per day grade deduction from the final clinical grade.

5. Absences with doctor’s excuse from clinical or simulation lab: The student can miss two clinical days with an official doctor’s excuse. Doctor’s excuse must include the dates in which clinical was missed and must be turned into the clinical coordinator on the first day the student returns to clinical. These will be considered excused clinical absences. The two days must be made up during finals week of the semester the absences took place. They cannot be made up at any other time during the semester. Any additional absences will result in a clinical grade deduction of 3% per day from final grade. (see clinical syllabus)

9. Any deviation from the normal clinical education schedule must be submitted to the program director and approved by the clinical education coordinator of radiography.

10. All appointments must be scheduled outside of clinical and didactic course times.

11. Students are expected to meet the objectives of the clinical rotations and simulation labs. For this reason as well as safety issues, students on crutches will not be allowed in the clinical setting. Other injuries or post-surgical devices or restrictions will be looked at on an individual basis. Students may use their two allotted absence days with a doctor’s excuse for these types of absences. The student will make up this time on pre-arranged dates during finals week.

**Definitions:**

- **Excused Absence**: Those qualified by illness of self or death of an immediate family member.
- **Unexcused absence**: Any absence that is not called in before 7:30 a.m. or that is not pre-arranged. An unexcused absence will result in a grade deduction for clinical education, see course syllabus. Excessive tardiness or unexcused absences will result in probation and possible dismissal from the program due to incomplete completion of clinical objectives and unprofessional behavior.
- **Tardy**: Student arriving to clinical education past the rotation start time
- **Doctors Excuse**: An official note written and signed by a physician notifying faculty members that the student was excused from clinical for an illness, injury or surgery. Doctor bills or invoice statements will not be accepted.