

**RDTK 2810  
CLINICAL EDUCATION V  
FALL 2015**

**LABORATORY HOURS:** 22.5    **CREDITS:** 5

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

**INSTRUCTOR:** Rick Johnson

**OFFICE:** HS 118-A

**OFFICE PHONE:** 268-2718, 258-7046 (cell)

**OFFICE HOURS:** Thursday 9a-12p, 3:15p-4:15p

**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.

**COURSE DESCRIPTION:**

A continuation of RDTK 2710.  
This course involves a practical learning experience in the clinical radiographic environment. Students participate at pre-scheduled time periods and practice their radiographic skills for a total of 330 clinical education hours at various clinical locations. Students will be under the supervision of clinical instructors or registered radiographers during their experience. Skills necessary to perform entry level tasks in the clinical setting will be reviewed. Skull, facial bones, CT, pediatric, contrast studies, trauma, surgical and mobile procedures will be reviewed. Students will also be scheduled in rotations through specialty imaging and therapeutic modalities. See program policies for clinical clock hours vs. credit hours description. Prerequisite: RDTK 2710

## REQUIRED TEXTS:

- 1) Textbook of Radiographic Procedures, Bontrager, 2013.

## 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** – This exercise will be done in class throughout the Fall semester. Topics that will be covered are the following:  
Kvp/ Focal Spot  
Mas/Timer  
Collimation/ Beam Alignment  
Processor  
Please refer to your QA manual that was handed out in RDTK 1710 as we will refer to it.
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.

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 filled out on **Moodle** by the student. If an objective sheet is not completed in the rotation will be considered incomplete and the student will receive a "0" grade for that rotation.
  - A. An affective evaluation will be completed on the Moodle database by the radiologic technologist that the student worked with during their last week in the rotation.
  - B. Procedure Logs on must be submitted to instructor and validated by a supervising RT. All repeats must be performed with direct supervision by an RT . Objectives must be completed by the student.
  - C. Room and equipment skills checklist performed as directed.
  - D. Completion of competency film critique forms.
  - E. Clinical site and technologist/preceptor evaluations must be completed by the student on Moodle.
  - F. Time Clock must be kept for clinical rotations on Moodle.
  
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<sup>th</sup> 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 and logged into your procedure log(initialled).** See repeat and termination policy.

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: 30%  
QA program  
Evaluations  
Rotation Objectives  
Skills Sheet, log book with repeats initialed
3. Simulation and Virtual Sim Lab, Film critique test 20%
4. Final exam 20%

### **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. Kvp, focal spot, collimation and beam alignment, Mas timer and processor will be covered. This will be done in class as a group participation, these skills will be a review from your 1<sup>st</sup> year. Please review your supplement packet that was given to you.
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 complete this in **Moodle** by the second week of the rotation. These will be available to the Clinical Coordinator following the student's submittance.
3. Successfully completed the assigned clinical **Objectives** - Objectives are required for each rotation and must be completed on **Moodle** 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.
7. 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. The log book must be carried on the student at all times during clinical. Can be up to a 20% deduction in final grade

8. Demonstrate effective problem solving skills through activities related to trauma radiography.
9. Utilize effective communication techniques with patients and co-workers.
10. 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

**Course Outline Clinical Education V**

Class meets Thursday 2-3:15

8-27	2-3:15	Review of course objectives / positioning review / vital sign review
9-3	2-3:15	Skull / Facial Radiography Simulation Lab
9-10	2-3:15	Skull/Facial Testing
9-17	2-3:15	Sinus/ Nasal Bones simulation and testing at college
9-24	2-3:15	Orbits/ Mandible simulation lab
10-1	2-3:15	Orbits/Mandible testing
10-8	2-3:15	Pediatric Radiography
10-15	2-3:15	Registry Review
10-22	2-3:15	Introduction to Trauma and Surgical Procedures
10-29	2-3:15	Trauma Radiography of the Chest/Abd
11-5	2-3:15	Trauma of Extremities critical thinking
11-12	2-3:15	Film critique test
11-19	2-3:15	Trauma Radiography of the Skull and Facial Bones: Critical thinking group scenario
12-3	<b>2p-4p</b>	Portable in Virtual Sim Lab lab 2pm(2 groups)
12-10	2-3:15	Trauma Radiography of the Spine: Critical thinking group scenario
12-14 thru 12-17		Final exam scheduled with instructor(Final Written is on Moodle, there will be a positioning component also.

**December 14-17 :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.**

1. **SCHEDULE SUBJECT TO CHANGE WITH NOTICE FROM INSTRUCTOR**
2. **Fall Conference Sept 17-20**

**Labor Day holiday September 7**  
**October 12-16 mid-term week**  
**Fall break October 19-20**  
**Advising day November 6**  
**Thanksgiving break November 25-27**  
**December 14-17 final exams**

**Calendar or schedule indicating course content: (be as complete here as possible, at least a grid showing week by week topics to be covered, assignments, due dates, readings etc. This can always be modified with a new handout later in the semester – better to send out a revised schedule than to trust verbal announcements by themselves)**

**Student Rights and Responsibilities:** Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

**Chain of Command:** If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Interim Vice President for Academic Affairs.

**Academic Dishonesty:** (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

**Official Means of Communication:** Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

**ADA Accommodations Policy:** If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, [bheuer@caspercollege.edu](mailto:bheuer@caspercollege.edu) . The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.



**CASPER COLLEGE RADIOGRAPHY PROGRAM  
CLINICAL EDUCATION V - ACTIVITY FORM**

**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.

SKILL	COMPLETION DATE	SUPERVISORY INITIALS
Quality Control Project Assignment		
C-Arm manipulation		
Fluoroscopic Set-up And manipulation	Room #4 - Room #1 -	
Vital signs practice		
Portable Manipulation		
Tomographic Set-up	CMI/Outpatient Center - Room 3 -	
Trauma and Surgical procedures review		
***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.	Supplied on Moodle	
Midterm Clinical Evaluation: Clinical Coordinator		
Final Clinical Evaluation with Clinical Coordinator		

**CLINICAL ATTENDANCE POLICY**

- 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.