

IDAHO STATE UNIVERSITY  
Radiographic Science Program  
**RS 4489 Applied Radiography IV**  
**Course Syllabus**  
Fall, 2nd year

**COURSE CREDIT:** 4 credits

**SEMESTER SEQUENCE:** Fall, 2<sup>nd</sup> year

**TIME:** M W F

**PREREQUISITE:** RS 4488 or ISU faculty approval

**CLASS:** Second Professional Year

**CLINICAL COORDINATOR:** Wendy Mickelsen, MHE, R.T.(R)(M)(BD)(ARRT)

**CLINICAL INSTRUCTORS:** As Assigned

**OVERVIEW:**

RS 4489 provides the student with practical experience within the hospital. This course continues to instruct the student in hospital and departmental policies, clerical and technical procedures, and patient care in the Radiology Department.

The student will perform radiographic studies under the supervision of a registered radiographer. Students will become competent in radiographic procedures doing trauma, mobile and surgical radiography.

In this course students will be instructed in the utilization of imaging equipment, accessories, optimal exposure factors, and proper patient positioning to minimize radiation exposure to the patients, themselves, and others. These practices assure radiation exposures are kept as low as reasonably achievable (ALARA).

**Course Learning Objectives/Goals:** During this clinical rotation the students will properly position patients for standard radiographic procedures of trauma, mobile, and surgical radiography, which includes the entire spine, upper and lower limbs, surgical C-arm procedures and portable chest, abdomen, and orthopedic procedures. They will demonstrate safe radiation safety practices and set technical factors to produce diagnostic quality radiographic images.

The **Secretary's Commission on Achieving Necessary Skills (SCANS)**: This commission was appointed by the Secretary of Labor to determine the skills people need to succeed in the work place. The Commission's fundamental purpose is to encourage a high-performance economy characterized by high-skill, high-wage employment. The Commission's research found that effective job performance is what business calls *workplace know-how*. This know-how has two elements: competencies and a foundation. The SCANS report identifies five competencies and a three-part foundation of skills and personal qualities that lie at the heart of job performance. While the Commission's work ended with the report, its recommendations must be implemented; as the report stated, "...defining competencies and a foundation is not enough. Schools must teach them. Students must learn them."

<http://www.academicinnovations.com/report.html>

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**Description of SCANS competencies are as follows:**

<b>A Three Part Foundation</b>	
1. Basic Skills	reads, writes, performs arithmetic and mathematical operations, listens and speaks
2. Thinking Skills	thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons
3. Personal Qualities	displays responsibility, self-esteem, sociability, self-management, and integrity and honesty
<b>The Five Competencies</b>	
4. Resources	identifies, organizes, plans and allocates resources
5. Interpersonal	works with others
6. Information	acquires and uses information
7. Systems	understands complex interrelationships
8. Technology	works with a variety of technologies

Each of these foundations and competencies are listed after the objective that meet the competency or skill set described above.

**Learning Outcomes:**

<b>This clinical experience will enable the student to:</b>	<b>SCANS</b>
Demonstrate in a clinical setting what has been taught in a laboratory experience at the college.	1,2,3,4,5,6,7,8
Evaluate a radiographic requisition.	1,2,3,4,5,6,7,8
Prepare the exam room and assess the patient by using patient management skills which have been taught didactically.	1,2,3,4,5,6,7,8
Use radiographic markers to appropriately mark the side of anatomy.	1,2,3,4,5,6,7,8
Demonstrate safe radiation safety practices.	1,2,3,4,5,6,7,8
Adapt standard radiographic practices to varying clinical situations.	1,2,3,4,5,6,7,8
Demonstrate professional behavior.	1,2,3,4,5,6,7,8
Set technical factors to produce diagnostic images.	1,2,3,4,5,6,7,8
Critique radiographic images performed in a clinical setting.	1,2,3,4,5,6,7,8

**SUPERVISION:**

Direct Supervision –

1. A registered radiographer reviews the request for the examination, and evaluates the condition of the patient in relation to the student's level of achievement.
2. A registered radiographer reviews and approves the radiographs.
3. A registered radiographer will be present during the conduct of the procedure.
4. A registered radiographer will not allow the student to make an obvious mistake, e.g. incorrect positioning, improper radiation practice, inappropriate technique selection or other such errors that put the patient at risk.

Repeat Policy: Unsatisfactory radiographs shall be repeated in the presence of a qualified radiographer.

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Indirect Supervision –

Supervision that is provided by a registered radiographer immediately available to assist the student regardless of the level of student achievement.

"Immediately available" refers to the presence of a registered radiographer adjacent to the room or location where the procedure is being performed.

Students may be permitted to perform a procedure with indirect supervision only after demonstrating competency in that procedure.

**MANDATORY COMPETENCIES:**

Students must demonstrate competency in twenty two (22) required exams (8 competencies, 4 electives and 10 continued competencies). Exam competency grades will be averaged to determine 50% of semester grade.

Clinical instructors must record points earned for each competency. Competency can not be achieved in an exam that requires a repeat of any view.

Students may not perform a competency on an exam on which they haven't covered in lab.

Clinical competency sheets will be submitted to the program at mid-term and the end of the semester.

**COGNITIVE ASSESSMENT:**

Students will be evaluated on radiographic anatomy, positioning knowledge, and film critique on all required competencies by the affiliate clinical instructor

**ATTENDANCE:**

1. The students must complete all clinical hours that have been assigned.
2. Students must sign in and out of clinical using the designated computer and Web address. Cumulative attendance records will be maintained; students will submit monthly attendance records.
3. Absences: Students must call the clinical instructor when they cannot attend. No final grade will be reported until clinical time is completed. The student will make his/her arrangements for make-up time with the clinical instructor. Extended absences will be handled on an individual basis with the clinical coordinator and clinical instructor. Students may not accumulate compensation time. Make-up time in the clinical area can be made up in **2-hour increments** (2 hours or greater) only.
4. Clinical instructors must document that the student has attended clinical for the required number of hours per semester.
5. A student without a current radiation monitoring device **will not be allowed** to attend clinical.

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6. **Optional:** Evening clinical rotations may be available, but **cannot exceed a two week rotation** (i.e.: 4 days for Juniors or 6 days for Seniors or 10 days for summer rotation) per semester.

**CLINICAL GRADE:**

Clinical Evaluations	30%	(15% for Mid-term Eval, 15% for Final Eval)
Exam Competency Grade	50%	
*Attendance	20%	
<b>Total</b>	<b>100%</b>	

\*Professional year I students: If 17 or more hours of **scheduled** clinical time are missed per semester the student will receive a full letter grade deduction at the discretion of the program director.

\*Professional year II students: If 25 or more hours of **scheduled** clinical time are missed per semester the student will receive a full letter grade deduction at the discretion of the program director or 40 hours during the summer semester.

\*Extreme family circumstances, immediate family death, or medically excused absence are the only exceptions and must be approved by the program director.

Forms without appropriate signatures will be returned and no grade will be reported.

**GRADING SCALE:**

**This grading Scale will be used:**

+/- System	
93-100%A	73-76% C
90-92% A-	70-72% C-
87-89% B+	67-69% D+
83-86% B	63-66% D
80-82% B-	60-62% D-
77-79% C+	59% Below F

**MIDTERM GRADES -**

**Clinical instructors** must complete Mid-term Clinical Evaluations by the end of mid-term week. It is the **student's** responsibility to submit these required documents (Mid-term Eval and Exam Competency Sheet) by the end of mid-term week.

**FINAL GRADES -**

**Clinical instructors** must complete Final Clinical Evaluations, Exam Competency Sheets, Monthly Attendance Assignments and Room Rotation Assignments on students. These may be faxed to 282-4645 or submitted by the student. It is the **student's** responsibility to submit these required documents by the end of closed week.

It is the **student's** responsibility to request an appointment with the clinical instructor for mid-term and final clinical evaluations. Evaluations must be signed by the clinical instructor and the student.