

OAKLAND UNIVERSITY
SCHOOL OF HEALTH SCIENCES
Radiologic Technology Program
RAD 4420
Radiographic Procedures V

COURSE: Radiographic Procedures V
YEAR: Winter 2018
PROFESSOR: Terese A. Trost MA, RT(R)
OFFICE PHONE NUMBER: 248-364-8780
CREDITS: 3

DAY/TIME: T & Th. 10:45am-12:30pm
OFFICE HOURS: Thursdays 7:30am – 8:30am
CLASS LOCATION: HHB5015
EMAIL: trost@oakland.edu

COURSE DESCRIPTION: Instruction in advanced radiographic procedures from all previously discussed topics. Topics include special and unusual procedures.

COURSE OBJECTIVES/LEARNING OUTCOMES:

Chapter 3 – Chest obliques, airway

Chapter 4 – Dorsal, ventral and lateral decubitus

Chapter 5 – Robert’s, Folio, Norgaard, Scaphoid, Carpal Canal, Carpal Bridge, Jones (acute flexion), Coyle, Radial head laterals

Chapter 6 – Hobbs, Clements modification, Grashey, Fisk, Neer, Garth, AC Joints, Lawrence transthoracic lateral shoulder

Chapter 7 – Tangential sesamoids, Ankle stress, Weight bearing feet and knees, Rosenberg, Camp Coventry, Holmblad, Merchant, Hughston, Settegast, Sitting tangential

Chapter 8 – Hip localization, modified Cleaves, inlet/outlet, Judet, Teufel, Danelius-Miller, Clements-Nakayama

Chapter 9 – Swimmer’s, C-Spine flexion/extension, Fuchs, Judd, Ottonello, Pillars, Thoracic obliques, L5-S1 AP Axial

Chapter 10 – Ferguson, AP bending, lateral hyperextension and hyperflexion

Chapter 11 - SC joints, ribs, sternum

Chapter 13 – Haas, Law and Schuller, Orbits, Sella Turcica, Superoinferior Nasal Bones, Panorex Mandible

Chapter 16 – IVU, nephrotomogram, cystogram

Chapter 22 – Additional procedures

1. Identify the basic structures of the body part.
2. Differentiate among key types of pathologic conditions of the part.
3. Determine which projections or positions will best demonstrate the structures of the body part.
4. Identify details of proper positioning.
5. Analyze images for anatomy, pathology and diagnostic quality.
6. Identify proper positioning.
7. Detail each procedure regarding equipment, required images, techniques, and patient care.
8. Apply image evaluation skills to radiographic studies.

REQUIRED TEXT: Textbook of Radiographic Positioning and Related Anatomy, Kenneth Bontrager, 7th edition and Evolve –Elsevier Adaptive Quizzing.

COURSE FORMAT: Lecture, discussion, instructor and student demonstrations, tests and retention quizzes. Material for tests and quizzes will be drawn from the text, lecture, classroom discussions and classroom activities. Participation in class activities is required
This course is intended to provide registry review and to revisit procedures that are seldom seen in clinical.

GRADING: Five written tests and one final exam will be given. The final exam will be counted as 2 test grades. The final exam will be a cumulative exam covering all of the Radiographic Procedures classes in the entire RAD program.

Six to eight retention tests will be given at random/various times throughout the semester, some will be taken via E-volve. The average of these retention tests will count as a test grade.

Students are expected to come to class on time prepared to discuss text material.

Grades are not rounded.

Remediation completion and retest must take place within 2 weeks of the original test date.

Group Presentation grade, Pathology Assignment and Image Evaluation will each be counted as a test grade.

Image Evaluation Presentation: Students will present their evaluation of an imaging study that they have participated in during clinical rotations. Format attached. Evaluation will be based on the Bontrager evaluation criteria for each image. Topic will be assigned.

Presentation is to be e-mailed to the instructor by **11:59pm on 2/12/18**. 10 points will be deducted from the presentation for not meeting this deadline. Submit paper and power point overview electronically with title of presentation on the subject line.

I will accept only one submission from each student. Corrected submissions will not be accepted.

Pathology Assignment (ASRT Directed Reading): This semester, each student will obtain one ASRT Directed Reading of a pathology (available at the OU library, Beaumont RO library, or my office).

Guidelines - Each paper must:

Be based on an ASRT "Directed Reading".

Include a 700 - 800 word summary of the article and one additional paragraph as detailed below – this paragraph is not included in the word count.

Use a 12 point font.

Use standard margins.

Be double spaced.

Include one paragraph (at the end of the summary) explaining why you think this is or is not of value as continuing education for a technologist.

Presented orally to the class.

Be submitted electronically including Power Point presentation.

See attached rubric for grading details.

This assignment is due on **4/4/18 by 11:59pm**. If you are unsure of your topic selection, please feel free to discuss your selection with me. I will accept only one submission from each student, no corrected submissions are accepted. Late submissions will not be accepted and will earn a grade of "0".

Group Presentation – Each group will research and perform image(s) of a position **not** covered in Radiographic Procedures class. Each group must e-mail me the presentation by **11:59pm on 3/28/18**. 10% will be deducted for not meeting this deadline. Do not use Bontrager text images. The results will be shared with the class formally. The position presented must be demonstrated to the class. See Group Presentation Rubric for grading details.

Lab Supervision Policy: The group presentation requires students to make actual exposures in the clinical environment. Students are required to maintain all standard radiation protection practices during the imaging process. Students must complete these laboratory projects in an area in which a registered radiologic technologist is readily available for consultation. Radiographic rooms must be left clean, neat and non-energized. Students failing to conduct the lab project with carefulness, cleanliness or respect will earn a grade of “0” for this group project.

Grading Scale: a grade of 75% is required to pass this class and to continue in the RAD program.

Percent	Grade point	Percent	Grade point	Percent	Grade point	Percent	Grade point
97-100	4.0	85	3.2	74	2.4	66	1.6
96	3.9	84	3.1	73	2.3	65	1.5
95	3.8	80-83	3.0	72	2.2	64	1.4
94	3.7	79	2.9	71	2.1	63	1.3
93	3.6	78	2.8	70	2.0	62	1.2
90-92	3.5	77	2.7	69	1.9	61	1.1
88-89	3.4	76	2.6	68	1.8	60	1.0
86-87	3.3	75	2.5	67	1.7		

CLASS POLICIES:

1. Academic conduct
 - a. All students are expected to complete their own work unassisted by anyone else unless specified by the instructor for group assignments.
 - b. Students are expected to come to class prepared and ready to discuss course material.

Complete the appropriate assignment prior to class start time.

2. Add/Drops: **Deadline for dropping this class will follow university policy.**

3. Special Considerations:

Students with disabilities, who may require special considerations should make an appointment with campus Disability Support Services, 106 North Foundation Hall, phone 248 370-3266. Students should also bring their needs to the attention of the instructor as soon as possible. For academic help, such as study and reading skills, contact the Academic Skills/Tutoring Center, 103 North Foundation Hall, phone 248 370-4215.

4. Attendance - Students are expected to attend all scheduled class meetings. The course grade will be reduced based on attendance as follows:
 - a. 2 absences = -2% from overall grade
 - b. 3 absences = -5% from overall grade
 - c. 4 absences = -10% from overall grade
 - d. 5 absences = -15% from overall grade
 - e. 6 absences = failure of class

Tardiness – Tardiness means arriving to class after the scheduled time. Each accumulation of 2 instances of tardiness will equal one absence (see above). Tardiness in excess of 15 minutes will be considered an absence.

5. Assignments must be completed on time. Late assignments will not be accepted and a grade of “0” will be earned.
6. If you know that you will miss a scheduled test/exam/assignment, contact the instructor for options. Students that miss a grade, but take it before the scheduled date will not suffer grade reduction. Students that miss a scheduled test/exam may still earn a grade, if approved by the instructor, but the grade will be reduced by 10%. Unannounced quizzes are not taken in advance nor made up afterward. A grade of “0” will be earned for missed unannounced quizzes.
7. No on-line activity is required.
8. Students will come to class dressed appropriately. No hats, revealing or ripped clothing is allowed. Students dressed inappropriately will leave class for the remainder of the class period and charged with an absence.
9. Cell phones must be turned OFF while in class. If a cell phone makes an audible noise during class, the student will immediately leave the class for the remainder of the class period. Leaving class for this issue will be considered an absence. Since classroom telephones are not available, safety concerns require the instructor to have a cell phone in the classroom and available for emergency notifications.
10. Instructor is available for contact during office hours and via e-mail or office phone.
11. Athletes requiring an altered schedule must meet privately with the instructor within the first semester week.
12. Students leaving the classroom during any test (quiz, exam, etc.) will not be re-admitted to the classroom until the test is over. Tests will be considered submitted upon leaving the classroom. In this event, students will forfeit their ability to complete any unfinished test items or utilize any remaining test time.
13. Tests and quizzes will be available for review for up to two weeks after the exam was given.

TENTATIVE COURSE OUTLINE - RAD 4420 Radiographic Procedures V

<u>Date</u>	<u>Topic(s)</u>	<u>Readings/Assignments Due</u>
1/4/2018	Explain syllabus, assign projects/groups and ASRT Directed Readings	
1/9	Group Preparation	
1/11	Chapter 19	Read Chapter 19 Submit first draft of group project by the beginning of class today. See Draft Format attached.
1/16	Chapter 19	
1/18	Test Chapter 19 (Test 1) Group Presentation Preparation	

1/23	Group Presentation Preparation Evolve retention quiz on “Abdomen& GI Studies”	
1/25	Group Preparation	Final draft due by the end of class today.
1/30	<u>Chest and Abdomen</u> Chest obliques and upper airway Abdomen dorsal, ventral and lateral Decubitus	Read exams to be covered today Groups review final draft with me.
2/1	<u>Upper extremity</u> Stecher Roberts Folio Norgaard Carpal canal/bridge Radial and ulnar deviations Acute flexion (Jones) Coyle Radial head laterals	Read exams to be covered today
2/6	<u>Shoulder Girdle</u> Transthoracic lateral shoulder (Lawrence) Hobbs Clements Grashey Fisk Neer Garth AC joints	Read exams to be covered today
2/8	Test 2 and group prep if needed.	
2/13	Image Evaluation Presentations	Image Eval. Presentations due 2/12/18
2/15	Image Evaluation Presentations	
2/27	Image Evaluation	
3/1	Test 3 (on images presented/reviewed)	
3/6	<u>Lower Extremity</u> Tangential sesamoids Weight bearing feet Ankle stress views Rosenberg Weight bearing knee	Read exams to be covered today

**Camp Coventry
Holmblad and variations
Tangential
Patella variations
Merchant, Settegast, Hughston**

- | | | |
|-------------|--|---------------------------------------|
| 3/8 | Hip localization
Cleaves
Taylor
Inlet/outlet pelvis
Judet
Teufel
Danelius - Miller
Clements - Nakayama | Read exams to be covered today |
| 3/13 | Test 4 and group prep if needed. | |
| 3/15 | <u>Spine</u>
Swimmers
C-spine flexion/extension
Fuchs/Judd
Ottonello
Pillars
T-spine obliques
Ferguson for Scoliosis
Lumbar bending images (all)
L5-S1 AP Axial | Read exams to be covered today |
| 3/20 | SC joints
Ribs and sternum
Mastoids
Haas
Law and Schuller
Sella turcica
Superoinferior Nasal bones
Panorex mandible
Orbits
WBH Bone age
WBH Bone survey
Child Abuse Survey
Soft tissue/foreign bodies | Read exams to be covered today |
| 3/22 | Urography and Retrograde
Cystography
Cystourethrography
Evolve retention quiz on “Spine/Pelvis” | Read exams to be covered today |

3/27	Test 5 and final group preparation	
3/29	Group Presentations	Group Presentations due 3/28/18
4/3	Group Presentations	
4/5	ASRT Directed Readings Presentations	ASRT Presentations due 4/4/18
4/10	ASRT Directed Readings Presentations Evolve Assignment in class (Topic TBD)	
4/12	Review	
4/17	Wrap up. Discuss details of Final Exam format	
4/19	Final Exam	

Group Presentation Rubric RAD 4420

Category	4	3	2	1
Topic Selection	Highly interesting. unusual and challenging images	Interesting or unusual	Somewhat new or interesting	Routine
Scientific Knowledge	Clear explanation, accurate, understandable	Clear or accurate	Some questions remain	Confusing
Quality of Sources	3 professional, appropriate sources	2 professional, appropriate sources	1 professional, appropriate source	1 or more unprofessional / inappropriate source(s)
Collaboration	Highly evident, activities were obviously shared equally	Some evidence of teamwork	Limited evidence of teamwork	Teamwork not evident
Image Quality	Image(s) produced demonstrate(s) pertinent anatomy with a high degree of quality	Image(s) produced demonstrate(s) pertinent anatomy	Image(s) produced minimally demonstrate(s) pertinent anatomy	Image(s) does (do) not demonstrate pertinent anatomy
Organization	Highly organized in conducting the drafts, project and presentation. Presentation reflects 100% of final draft.	Highly organized in conducting the drafts, project or presentation. Presentation reflects more than 80% of final draft.	Average level of organization in drafts, project or presentation. Presentation reflects more than 50% of final draft.	Much more organization is needed. Presentation reflects less than 50% of final draft.
Critical Thinking	High quality of work and critical thinking is evident	Good quality work and/or some critical thinking evident	Fair quality work and/or little critical thinking	Struggled with concepts and quality
Presentation	Professional. Business attire.	Complete	Missing some items	Difficult to follow

One additional point per category is possible – awarded for only “exceptional” work in that category.

Image Evaluation Rubric

Student Name: _____ Topic _____

CATEGORY	10	9	8	7	6	5	4	3	2	1
Time-Limit	Presentation lasts an appropriate amount of time to cover the topic fully.	Presentation lasts an appropriate amount of time to cover the main points.					Presentation is missing some items or embellished unnecessarily			Presentation is limited or too lengthy.
Speaks Clearly	Speaks clearly and distinctly all (100-95%) the time, and mispronounces no words. Defines all new words.	Speaks clearly and distinctly all (100-95%) the time, but mispronounces one word. Defines most new words.					Speaks clearly and distinctly most (94-85%) of the time. Mispronounces more than one word.			Difficult to understand diction. Mispronounces more than one word. Does not define new words.
Content	Includes all criteria, explains and demonstrates each one completely. High degree of creativity.	Includes all criteria and explains or demonstrates each one. Some creativity noted.					Misses one criterion, explanation or demonstration.			Misses more than one criterion, explanation or demonstration. Limited/no creativity demonstrated.
Posture and Eye Contact	Stands up straight, appears relaxed and confident. Establishes eye contact with everyone in the room during the presentation.	Stands up straight and establishes eye contact with everyone in the room during the presentation.					Sometimes stands up straight and establishes eye contact.			Slouches and/or does not look at people during the presentation.
Volume	Volume is loud enough to be heard by all audience members throughout the presentation.	Volume is loud enough to be heard by all audience members at least 90% of the time.					Volume is loud enough to be heard by all audience members at least 80% of the time.			Volume often too soft to be heard by all audience members most of the time.
Enthusiasm	Facial expressions and body language generate a strong interest and enthusiasm in others about the topic.	Facial expressions and body language sometimes generate a strong interest and enthusiasm in others about the topic.					Facial expressions and body language are used to try to generate enthusiasm, but seem somewhat insincere.			Very little use of facial expressions or body language. Did not generate much interest in topic being presented.
Power Point Presentation	Produces and delivers a high quality presentation. Submitted per directions.	Produces a good presentation.					Presentation lacked one component required.			Presentation lacks more than one component required.
Study Guide/Handout	Provides high quality and effective materials for quick, helpful and easy review. Includes more information than presented.	Provides limited materials in addition to presentation slides or summary.					Only presentation slides or summary provided.			Inadequate amount of material provided.
Preparedness	Provides expert analysis and insight regarding topic. Answers anticipated questions in presentation. Limited reliance on notes/slides. No typos. Business attire.	Presenter is somewhat comfortable with topic. Some reliance on notes/slides. One typo.					Relied heavily on notes/slides. Not comfortable with all material. Two typos.			Not comfortable with the material. Only read from notes/slides. More than two typos.
Five Multiple Choice Questions	All questions are very clearly written and encourage critical thinking.	All questions are clearly written or encourage critical thinking.					Some questions are unclear, poorly written or too easy/difficult.			Inappropriate questions

One additional point per category is possible – awarded for “exceptional” work in that category.

Position _____

Criterion

Evaluation

Criterion	Evaluation

Student _____ Topic _____

ASRT Directed Reading Summary – Grading Rubric

	Excellent 4 pts.	Good 3 points	Fair 2 points	Poor 1 point	Very Poor 0 points
Content, Development and Presentation	Writing demonstrates significant knowledge of the topic.	Concepts are clearly discussed in sufficient detail. Content and purpose of the writing are clear.	Knowledge seems inadequate or does not address topic well.	Content is unclear. 30-50% of content is direct citations.	Major points are unclear. Over 50% of content is direct citation. Poor presentation.
Grammar, Punctuation. Spelling	Skillfully executed including appropriate medical terminology and research tone.	Rules of grammar, usage and punctuation are followed and spelling is correct. Language is clear and precise. Sentences display varied structure.	Assignment contains no more than 1 grammatical, punctuation, or spelling error.	Assignment contains more than 1 grammatical, punctuation or spelling error. Language lacks clarity or includes the use of some jargon or conversational tone.	Assignment contains several grammatical, punctuation or spelling errors. Language uses jargon or conversational tone.
Format	Follows all designated guidelines. Dated review from OU Writing Center emailed with assignment.	Follows all guidelines	One guideline missing.	Does not follow more than one guideline.	Unprofessional format.
Organization and Structure	Structure is highly organized, suitable for an informed reader.	Structure of writing is clear and easy to follow. At least 3 points of impact regarding the subject.	Structure of the writing is not easy to follow, paragraph transitions need improvement. At least 3 points of impact noted.	Structure is not easy to follow and/or needs more information about the topic.	Organization and structure detract from the message of the writer. Writing is disjointed and lacks transition of thought.
Oral Summary	Exceptionally interesting. Well planned, delivered and demonstrated. Summarized all points. Generated interest in the topic. Reflective personal summary (end).	Well planned and delivered. Summarized main points. Generated interest in topic.	Well planned or well delivered. Summarized main points.	Little interest generated or conveyed.	Poorly delivered or poorly planned. Disrespectful of any other presenter.

Comments