**RADIOLOGY PROGRAM**

**SALT LAKE COMMUNITY COLLEGE**

**PRACTICAL APPLICATION OF LIMITED RADIOLOGY**

**HS 1710 concurrent with HS 1700**

HS 1710 is a lecture/lab that is taken concurrently with the online/hybrid course HS 1700.

CREDIT HOURS: 3

INSTRUCTOR INFORMATION:

INSTRUCTOR: Jayci Dowden R.T.

OFFICE: JHS 120D

OFFICE HOURS: by appointment only

PHONE: 801-957-6237

E-MAIL: please use the canvas course site

TEXTBOOKS:

- Radiography Essentials for Limited Practice, By Long, Frank and Ehrlich, 5th Edition

- Workbook Radiography Essentials for Limited Practice by Long, Frank, and Ehrlich, 5th edition

COURSE DESCRIPTION:

Practical application of principles and theories taught in the online/hybrid course HS 1700. Patient positioning for upper extremities, lower extremities, chest, thorax, abdomen, spine, skull, sinuses and facial bones. This course will include a discussion of film imaging, knowledge and practice with a CR x-ray room and CR image processor when imaging on a phantom. Pediatric and Geriatric radiography skills will also be discussed.

HS 1710 is the practical component of the knowledge, skills and abilities to pass the Limited Scope of Practice in Radiography exam administered by the American Registry of Radiographic Technologists (ARRT) and receive state licensure as a limited x-ray machine operator.

**SALT LAKE COMMUNITY COLLEGE STATEMENT LEARNING OUTCOMES:**

SLCC is committed to fostering and assessing the following student learning outcomes in its programs and courses by:

1. Acquiring substantive knowledge in their intended major
2. Communicate effectively
3. Develop quantitative literacies necessary for their chosen field of study
4. Think Critically and Creatively
5. Develop the knowledge and skills to be civically engaged
6. Develop the knowledge and skills to work with others in a professional and constructive manner
7. Develop computer and information literacy
8. Develop the attitudes and skills for Lifelong Wellness

|  |  |
| --- | --- |
| **Course Learning Outcomes** | **SLCC CWSLO #** |
| Demonstrate proper computerized radiography and darkroom procedures and processing techniques | 1, 4, 6, 7,  |
| Demonstrate proper use and care of x-ray machine  | 1, 3, 4, 6, 7,  |
| Identify factors that affect film quality and quality assurance | 1, 6, 7,  |
| Demonstrate proper radiation protection | 1, 2, 4, 5, 6,  |
| Demonstrate proper patient care and management techniques | 1, 2, 5, 6,  |
| Correctly evaluate radiographs of the bony thorax, chest and abdomen for positioning accuracy. | 1, 2, 4, 6, 7 |
| Correctly evaluate radiographs of the upper extremity, shoulder girdle, lower extremities and pelvis for positioning accuracy. | 1, 2, 4, 6, 7 |
| Demonstrate correct body and part position for routine projections and common special projections of the upper extremity, shoulder girdle, lower extremities and pelvis.  | 1, 4, 6, 7 |
| Adjust radiographic exposures appropriately for pediatric, youth, adult, and geriatric patients. | 1, 4, 3, 6 |

See [SLCC Assessment webpage](http://www.slcc.edu/assessment/index.aspx) for additional details about College-Wide Student Learning Outcomes

COURSE OBJECTIVES/OUTCOMES:

By completing this course, you will be able to meet the following course learning objectives:

* Demonstrate proper computerized radiography and darkroom procedures and processing techniques
* Demonstrate proper use and care of x-ray machine
* Identify factors that affect film quality and quality assurance
* Demonstrate proper radiation protection
* Demonstrate proper patient care and management techniques
* Correctly evaluate radiographs of the bony thorax, chest and abdomen for positioning accuracy.
* Correctly evaluate radiographs of the upper extremity, shoulder girdle, lower extremities and pelvis for positioning accuracy.
* Demonstrate correct body and part position for routine projections and common special projections of the upper extremity, shoulder girdle, lower extremities and pelvis.
* Adjust radiographic exposures appropriately for pediatric, youth, adult and geriatric patients

**Chapter #12 INTRODUCTION TO ANATOMY, POSITIONING AND PATHOLOGY**

* Demonstrate anatomic position and body planes
* Use correct terminology to describe anatomic locations and relationships
* Given a position/projection select, mark, and place the image receptor correctly

**Chapter #13 UPPER EXTREMITY AND SHOULDER GIRDLE**

* Demonstrate correct body and part position for routine projections and common special projections of the upper extremity and shoulder girdle
* Correctly evaluate radiographs of the upper extremity and shoulder girdle for positioning accuracy
* Describe and recognize on radiographs anatomy and pathology common to the upper extremity and shoulder girdle

**Chapter #14 LOWER EXTREMITY AND PELIVS**

* Demonstrate correct body and part position for routine projections and common special projections of the lower extremity and pelvis
* Correctly evaluate radiographs of the lower extremity and pelvis for positioning accuracy
* Describe and recognize on radiographs anatomy and pathology common to the lower extremity and pelvis

**Chapter #15 SPINE**

* Demonstrate correct body and part position for routine projections and common special projections of the spine
* Correctly evaluate radiographs of the spine for positioning accuracy
* Identify on a diagram the parts of a typical vertebra.

**Chapter #16 CHEST, THORAX & ABDOMEN**

* Demonstrate correct body and part position for routine projections and common special projections of the chest, thorax & abdomen
* Correctly evaluate radiographs of the chest, thorax & abdomen for positioning accuracy
* Identify on a diagram the parts of a typical lung and abdominal field.

**Chapter #17 SKULL, FACIAL BONES, AND PARANASAL SINUSES**

* Demonstrate correct body and part position for routine projections and common special projections of the skull, facial bones and paranasal sinuses
* Correctly evaluate radiographs of the skull, facial bones and paranasal sinuses

for positioning accuracy

**Chapter #18 RADIOGRAPHY OF PEDIATRIC AND GERIATRIC PATIENTS**

* Adjust radiographic exposures appropriately for children and patients with osteoporosis and/or advanced age
* Demonstrate techniques used to immobilize an infant or toddler for a radiographic examination

GENERAL POLICIES:

**SYLLABUS:** This syllabus represents an “agreement” between you the student and the instructor. It is designed to ensure course integrity and fairness as well as provide students with a clear understanding of course expectations. The instructor and students are expected to use the syllabus and schedule as a guide for the semester. Any deviation from the syllabus or schedule will be discussed and agreed upon by the instructor and students.

**COURSE SCHEDULE:** Students will use the canvas site calendar for assignment/quiz/test/competency due dates. The day by day class schedule (subject to change) will be posted on canvas and a hard copy will be passed out on the first day of class, as well.

**REQUIRED ASSESSMENT:**

Grading procedures will be comprised of the following:

1.**Chapter** **Quizzes:** (seven)- consisting of multiple-choice questions about anatomy, positioning, projections, tube angles and body habitus. These quizzes will be taken at home on the canvas course site.

**\*Chapter Quizzes***:* All quizzes are taken and submitted on canvas. They are open book and have no time limit. *Watch canvas for due dates, all must be taken and submitted by the due date as they will close and will not be reopened.*

**2.Competencies:** Competencies or practical exams are simulations of an actual exam including introductions, verification of patient identity and written order, history, patient care, exam positioning, equipment operation (central ray, tube angle, image receptor, collimation), shielding and use of markers. Students must pass off the following:

Upper Extremity Competencies – 200 points

Lower Extremity Competencies – 200 points

Chest – 1 competency – 50 points

Spine – 4 total competencies – 50 points each for a total of 200 points

* cervical spine competency
* thoracic spine competency
* lumbar spine competency
* sacrum, SI joints or coccyx

Skull/Sinus/Facial Bones – 2 total competencies – 50 points each for a total of 100 points

* 1 skull competency
* 1 sinus or facial bone competency

**3.In-class Radiographic Test:** (five) - This exercise will involve identifying projections and anatomy from each unit, and analyzing images for acceptability.

**4. Chapter Workbook Assignment**: (seven) - Complete all questions in the workbook for each chapter assigned, the challenge questions are not required.

**\*Chapter Workbook Assignments**: Each assignment completed from the workbook has a specific due date as noted on the course schedule and calendar and will be turned in either through canvas by the due date or can be turned in early by bringing the workbook to class to be checked off. *A point will be docked for every question not answered.*

**5. Final Radiographic Exam:** The Final Exam will involve identifying projections and anatomy from all chapters covered throughout this course, including chapters 13, 14, 15, 16 and 17.

**\*TESTS:** All tests must be taken at the South Jordan Testing Center during the scheduled test times. *Watch Canvas for test dates and availability at the testing center.*

**6. Attendance/Professionalism:** 10 pts. earned each class

**DUE DATES:** Students are expected to pay attention to due dates and turn in all assignments/quizzes/tests before the due date given. If assignments/quizzes/tests are turned in late there will be a 25% deduction in points given and will be given a 0 after 2 weeks past the due date.

**GRADING:** Due dates will be posted on the Canvas Course Calendar.

 Chapter quizzes (7) 298 pts.

 Chapter workbook (7) 350 pts.

 Competencies (5) 700 pts.

 Radiographic Exercise (5) 500 pts.

 Professionalism 100 pts.

 Final Exam 150 pts.

 **Total 2,098 pts.**

**PARTICIPATION/ATTENDANCE AND PROFESSIONALISM:**

All students are expected to participate in activities. Understanding professionalism is important in the Radiology field. Lack of attendance and lack of professionalism could affect your grade. You are expected to contact your instructor via email or phone before the start of class if you will not be able to make it to class.

\*Dosimeters: Students will place each other in correct radiographic positions during class assignments. Students will not be allowed to expose other students but may use a radiology phantom. Students are required to wear a Dosimeter every time they are in the lab area. If a student does not have their dosimeter they will be asked to leave and the points will be lost for that day’s activities.

**GRADING SCALE:**

|  |  |  |  |
| --- | --- | --- | --- |
| Grade | Percent  |  |  |
| A | 95-100% | A- | 90-94%  |
| B+ | 87-89% | B | 84-86% |
| B- | 80-83%   | C+ | 77-79% |
| C | 74-76% passing for practical/theory courses | C- | 70-73% |
| D+ | 67-69% | D | 64-66% |
| D- | 60-63% | E | 0-59% |

**HOW TO SUCCEED IN THIS COURSE:** E-mail the instructor before assignment due dates for concerns, questions about the course set-up, or information in the syllabus. Emails will be answered within 24 hours with the exception of weekends, emails will be answered the following Monday. Please send an email to the instructor as soon as possible from the email within this course to ensure your email is working. Log in often for announcements. ***\*Check the canvas calendar for due dates\*.***

Be proactive and take charge of your own education. How much you get out of this course, and how much you learn about the radiology field is in large part determined by how involved you are with the course materials and discussions. The successful students are those that read the chapters, look at the PowerPoints and complete all workbook assignments.

**COURSE COMMUNICATION:**

Students are encouraged to meet with the instructor with any concerns or questions about this course. Emails, announcements and grading will be done through the Canvas course site. Please check the site several times per week for updates.

**INCOMPLETES:**

An incomplete is a conditional grade given only in extraordinary cases where a student has completed a major portion of the class but is unable to complete course work due to circumstances beyond their control such as major illness/injury or a death in the family.  Written documentation from your physician will be required. A student must be maintaining 75% or better before an incomplete is given.

**EMERGENCY EVACUATION:**

When instructed to evacuate the building, always leave immediately. Evacuation routes will vary depending on location in the JHS building. Routes will be discussed the first day of classes. As a rule, it is recommended that you evacuate the building at a distance of one and a half the size of the building to avoid harm. If assistance is needed in evacuation, please notify your instructor.

**GENERAL DISTANCE LEARNING INFORMATION:**

To update your browser and other information about distance learning contact SLCC help desk at 801-957-5555.

**STUDENT CODE OF CONDUCT:**

Please refer to the Student Code of Conduct regarding student behavior, cheating, plagiarism, sexual harassment, and discrimination found at <http://www.slcc.edu/policies/docs/stdtcode.pdf>.

**ADA/DISABILITY RESOURCES INFORMATION:**

Students with medical, psychological, learning or other disabilities desiring accommodations or services under ADA must contact the Disability Resource Center (DRC). Please contact the DRC by phone: (801) 957-4659, TTY: (801) 957-4646, Fax: (801) 957-4947 or by email: linda.bennett@slcc.edu.

**PLAGIARISM:**

Students are expected to reference all sources of information. Any plagiarism will result in failure of the assignment and possible failure of the course. Information must not be copied from other student’s work, textbook or internet sources.

**ACADEMIC GRIEVANCE POLICY:**

In accordance with the Salt Lake Community College Student Code of Conduct, <http://www.slcc.edu/policies/docs/Student_Code_of_Conduct.pdf>, the grievance policy for students with reference to academics can be found in Section III. Students are encouraged to seek resolution with the instructor(s) whenever possible.

It is the goal of the School of Health Sciences to be forthright and consistent with specific academic policies throughout divisions and programs. This policy singularly addresses academic issues and the general principles for disciplinary actions as noted in the Student Code of Conduct Section III. It should be noted it is up to the faculty’s discretion to provide warning (verbal or written), suspension, or dismissal based upon program policy and severity of the issue at hand. It is realized in some health sciences programs a failing grade, as stated in the syllabus and/or policy manual, may result in program dismissal.

**STEP ONE:** A student has the right, as per college policy, to grieve a grade, warning (verbal or written), suspension, or dismissal received within a program of study. A student, as per policy, must make an appointment to meet with the instructor of the class. A meeting, for anything other than a final grade, should be made within ten (10) days of the incident. Final grade disputes require a meeting within 30 days of the student receiving the grade. Every effort should be made to find resolution and provide evidence from both parties with respect to the grade issued.

**STEP TWO:** If a resolution cannot be made, the student must request in writing five (5) business days from the date of meeting with the faculty, a committee review of the grievance to the Associate Dean of the specific division. The grievance will be reviewed by a committee consisting of three (3) to five (5) faculty outside the program in which the student is enrolled. This will include the following members, the Associate Dean and two to four faculty members outside the discipline. The Associate Dean will serve as committee chair. One faculty and the program coordinator of the program involved in the grievance can attend the procedure, as can the student with one representative. Each of these parties will only be allowed to present evidence to the committee and not vote on the issue in question. Legal representation is allowed by either party. The proceedings will be recorded for accuracy. Upon completion of the proceedings, the committee ONLY will vote on the issue(s) noted in the student’s grievance. A formal letter will be provided by the committee chair within ten (10) business days of the end of the proceeding with the committee’s decision regarding the issue.

**STEP THREE:** If the student is not satisfied with the outcome, they may appeal to the Academic Dean of the School of Health Sciences. This must be done in writing within five

1. days of receiving the formal letter from the grievance committee chair. The Dean will review the appeal, all evidence, and render a decision to the student within ten (10) days of receiving the formal letter from the student. The decision of the Dean of the School of Health Sciences is final and cannot be appealed.