

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

|                                 |   |          |          |          |          |         |     |  |     |
|---------------------------------|---|----------|----------|----------|----------|---------|-----|--|-----|
| <b>SUBJECT AREA</b>             | <u>Medical Imaging Technology-Radiography</u>   |          |          |          |          |         |     |  |     |
| <b>COURSE RUBRIC AND NUMBER</b> | <u>RADR 2235</u>  |          |          |          |          |         |     |  |     |
| <b>COURSE TITLE</b>             | <u>Radiologic Technology Seminar</u>  |          |          |          |          |         |     |  |     |
| <b>COURSE CREDIT HOURS</b>      | <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><u>2</u></td> <td style="text-align: center;"><u>1</u></td> <td style="text-align: center;"><u>:</u></td> <td style="text-align: center;"><u>4</u></td> </tr> <tr> <td style="text-align: center;">Credits</td> <td style="text-align: center;">Lec</td> <td></td> <td style="text-align: center;">Lab</td> </tr> </table> | <u>2</u> | <u>1</u> | <u>:</u> | <u>4</u> | Credits | Lec |  | Lab |
| <u>2</u>                        | <u>1</u>  | <u>:</u> | <u>4</u> |          |          |         |     |  |     |
| Credits                         | Lec   |          | Lab      |          |          |         |     |  |     |

**I. Catalog Description**

Offers a capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. A grade of “C” or better is required in this course to take the next course. **(1:4). Lab fee.**

**II. Course Objectives**

Upon satisfactory completion of this course, the student will be able to:

- A. Unit I- Anatomy
  - 1. Identify anatomical structures, and comprehend the physiology of body systems.
  - 2. Identify basic human anatomy on radiographs.
  
- B. Unit II -Radiographic Positioning
  - 1. Demonstrate the knowledge of various radiographic procedures.
  - 2. Examine the various radiographic projections as well as body positions to acquire a radiographic image on a film.
  - 3. Be able to position patients to obtain a radiograph.
  - 4. Demonstrate knowledge in intravenous and oral contrast examinations.
  - 5. Manipulate radiographic equipment in a safe manner to obtain radiographs.
  
- C. Unit III -Physics
  - 1. Examine the theories of physics at the atomic and subatomic levels.
  - 2. Discuss the basic electronics involved in daily radiographic practice.
  - 3. Explain the multiple energy transformations required for production of x-rays.
  - 4. Review the production of radiation in the radiographic tube.
  - 5. Discuss the nature of radiation.
  
- D. Unit IV-Principles
  - 1. Produce a radiograph demonstrating the effect that milliamperage, time, distance, and kilovoltage has on radiographic quality.
  - 2. Utilize accessory devices in the control of primary and/or secondary radiation and in the reduction of patient exposure.
  - 3. Manipulate the prime factors to produce a desired effect on the finished radiograph

- E. Unit V- Pathology and Patient Care
  1. Identify various pathological findings and processes as they correlate to radiographic procedures.
  2. Assist as well as assess patients scheduled for radiographic examinations.
  3. Utilize proper body mechanics to assist patients.
  4. Describe acute and chronic injury.
  5. Define structural disease and explain its formation.
  6. Define functional disease and give examples.
  
- F. Unit VI - Radiation Biology and Protection
  1. Describe the effects of radiation on the body.
  2. Identify x-ray examinations producing a relatively high exposure risk.
  3. Discuss the association of diagnostic radiography with increased mortality or incidence of disease.
  4. Recognize the public's right to minimal radiation exposure by describing the effects of exposure, methods of reducing exposure and federal guidelines establishing maximum exposure levels.
  5. Describe methods of reducing patient and operator exposure.
  
- G. Unit VII- Professional foundation for Employment Search
  1. Submit applications for professional licensures, such as ARRT (American Registry of Radiologic Technologists), CMRT (Certified Medical Radiologic Technologist), and CPR (Coronary Pulmonary Resuscitation).
  2. Write a professional resume.
  3. Learn presentation skills applicable during an interview process.

### **III. THECB Learning Outcomes (WECM)**

Upon completing this course, the student will be able to:

1. Demonstrate entry level proficiency in knowledge, skills, and attitudes necessary for professional employment.
2. Articulate the need for lifelong learning.

### **IV. Evaluation**

#### **A. Assessment**

An introductory examination will be administered to the student at the beginning of the course to evaluate the student's overall knowledge on Radiologic Technology. This diagnostic tool will help the instructor to determine if the student needs additional instructional assistance on any of the topics. Results from this examination will not be recorded on final grade.

#### **B. Remediation**

1. Retest on unit examinations will be permitted only if:
  - a. The student fails to obtain a passing grade.  
Tutoring and additional exercises might be requested by instructor.
  - b. The student submits valid documentation for an unexcused absence.  
Only a 90% maximum will be attainable on retest examinations.
  
2. Retest on the final examination is exclusively upon the instructor's discretion. Any appeals and/or petitions from the student should be submitted in writing to the instructor.
  
3. The student, who averages a failing grade upon completion of the first six unit examinations plus the resume, will be issued an incomplete grade; Therefore, he/she will not be eligible to take the final examination. In order for the student to complete the course, it will be necessary for the student to successfully fulfill all the remedial assignments provided by the instructor.

## A. Final Grade Determination

|                   |            |                                  |
|-------------------|------------|----------------------------------|
| Exam no. 1        | 12%        | Anatomy                          |
| Exam no. 2        | 12%        | Radiographic Positioning         |
| Exam no. 3        | 12%        | Physics                          |
| Exam no. 4        | 12%        | Principles                       |
| Exam no. 5        | 12%        | Pathology and Patient Care       |
| Exam no. 6        | 12%        | Radiation Biology and Protection |
| Resume            | 8%         | Professional foundation          |
| <u>Final Exam</u> | <u>20%</u> |                                  |
| TOTAL             | 100%       |                                  |

## B. Grading Scale

|            |                         |
|------------|-------------------------|
| 100-93=A   | I=Incomplete            |
| 92-85=B    | W=Withdrew or withdrawn |
| 84-75=C    |                         |
| 74-65=D    |                         |
| Below 65=F |                         |

**V. Disability Statement (Americans with/Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**VI. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.

**VII. Title IX and Sex Discrimination**

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.