SAMPLE OUTCOMES-BASED CURRICULUM
FOR BACHELOR OF SCIENCE IN RADIOLOGIC TECHNOLOGY

PROGRAM SPECIFICATIONS

Program Description

Degree Name
Bachelor of Science in Radiologic Technology

Nature of the Field of Study
Bachelor of Science in Radiologic Technology is a four-year degree program consisting of general education and professional courses. The fourth year is undertaken as a Clinical Education Training Program in accredited affiliation centres. The program affords training in basic x-ray radiography and the special fields of Radiology including Ultrasound, Computed Tomography, Magnetic Resonance Imaging, Mammography, Bone Densitometry, Nuclear Medicine, Radiotherapy, Interventional Radiology, Positron Emission Tomography, and other emergent fields.

Program Goals
The Bachelor of Science in Radiologic Technology Program aims to produce radiologic technologists who are competent to fulfil professional responsibilities in the following areas: diagnostic imaging, therapeutic applications, radiation safety and protection, patient care, administration and management, education, research, entrepreneurship, and life-long learning.

Specific Professions/Careers/Occupations for Graduates

Graduates of BSRT are expected to be able to perform any of the following roles:

a. Clinician
b. Administrator
c. Educator
d. Researcher
e. Entrepreneur

Allied Fields

a. Education
b. Management
c. Entrepreneurship

Program Outcomes

The minimum standards for the BSRT program are expressed in the following minimum set of learning outcomes:
Common to all programs in all types of schools

a. The ability to engage in lifelong learning and understanding of the need to keep abreast of the developments in the specific field of practice (PQF level 6 descriptor)
b. The ability to effectively communicate orally and in writing using both English and Filipino
c. The ability to work effectively and independently in multi-disciplinary and multi-cultural teams (PQF level 6 descriptor)
d. A recognition of professional, social, and ethical responsibility
e. An appreciation of “Filipino historical and cultural heritage” (based on RA 7722)

Common to Health Professions

a. Clinical competence in specific profession
b. Health professional and ethical practice
c. Inter-professional education
d. Communication skills/educator
e. Lifelong learner (personal/continuing professional development)
f. Leader / manager / systems approach to health care
g. Researcher
h. Social advocate / mobilizer

Specific to BSRT

a. Apply scientific knowledge, technical skills and the proper work attitude and values necessary for the practice of Radiologic Technology
b. Understand the scope of local and international professional practice
c. Promote the value of pursuing life-long learning
d. Implement radiation safety and protection measures
e. Demonstrate patient-focused care
f. Show beginning leadership, management, and entrepreneurial skills
g. Engage in academic and research activities
h. Advocate love of country and service to the Filipino people

Common to a Horizontal Type as defined in CMO 46 s 2012

- For professional institutions: a service orientation in one’s profession
- For colleges: an ability to participate in various types of employment, development activities, and public discourses particularly in response to the needs of the communities one serves
- For universities: an ability to participate in the generation of new knowledge or in research and development projects

Graduates of State Universities and Colleges must, in addition, have the competencies to support “national, regional and local development plans.” (RA 7722)

A PHEI, at its option, may adopt mission-related program outcomes that are not included in the minimum set.
Sample Performance Indicators

A. Ability to apply scientific knowledge, technical skills, and the proper work attitude and values necessary for the practice of Radiologic Technology

PERFORMANCE INDICATORS:
1. Performs radiologic procedures according to the standards of practice
2. Positions the patient correctly during a procedure
3. Produces high quality radiologic images
4. Recognizes problems in image quality and institutes measures to address them
5. Practices good housekeeping after every procedure
6. Demonstrates a good working relationship with colleagues

B. Ability to understand the scope of local and international professional practice

PERFORMANCE INDICATORS:
1. Observes the provisions of the Patient’s Bill of Rights
2. Practices the Code of Ethics of the profession
3. Adheres to the international standards of practice

C. Ability to implement radiation safety and protection measures

PERFORMANCE INDICATORS:
1. Uses protective shields like lead aprons, lead barriers and leaded goggles when performing procedures
2. Collimates the area of exposure
3. Uses the possible lowest exposure technique factors
4. Prevents unnecessary radiation exposure of patients, radiation workers, and members of the public
5. Closes the x-ray room and ensures that the red light is switched on during exposures

D. Ability to demonstrate patient-focused care

PERFORMANCE INDICATORS:
1. Explains and gives clear instructions to patients prior to a radiologic procedure
2. Prepares a supply of fresh gowns for patients’ use and provides privacy for patients’ change of clothes before and after a procedure
3. Transfers patients from gurney or wheelchair to the x-ray table and vice-versa safely and with minimum discomfort to the patient
4. Provides ample time for each patient to complete a procedure
5. Prioritizes patients according to a set of protocols
6. Establishes rapport and empathy towards patients

E. Ability to show beginning leadership, management, and entrepreneurial skills

PERFORMANCE INDICATORS:
1. Collaborates in planning activities for the department
2. Organizes colleagues to participate in various activities
3. Proposes ways to improve process flows and procedures
4. Solves simple problems with minimal supervision
5. Recognizes roles in a business enterprise
6. Supports the promotion of new imaging innovations

F. Ability to engage in academic and research activities

PERFORMANCE INDICATORS:
1. Conducts meaningful and relevant research studies related to the Radiologic Technology profession
2. Applies teaching and learning principles and prepares students for their clinical practice

G. Ability to promote the value of pursuing life-long learning

PERFORMANCE INDICATORS:
1. Attends seminars, workshops, conferences, and conventions
2. Undergoes further training in different fields of specialization
4. Pursues graduate studies
5. Reads journals on the latest developments in the profession

H. Ability to promote love of country and service to the Filipino people

PERFORMANCE INDICATORS:
1. Supports the National, Regional and Local Development Plans for Health Care Programs
2. Advocates socio-civic involvement in the community
3. Promotes a deep sense of genuine service towards Filipinos

CURRICULUM

Curriculum Description

The curriculum of the BS Radiologic Technology Program should be designed in a manner that will effectively develop the expected institutional outcomes and program outcomes, appropriate to an HEI’s horizontal typology. Higher education institutions offering Bachelor of Science in Radiologic Technology may exercise flexibility in their curricular offering but should ensure that minimum requirements are met as prescribed in the sample program of study.

Sample Curriculum

This section provides the minimum curricular requirements for a degree in Bachelor of Science in Radiologic Technology. The courses indicated herein are based on CMO 18, s 2006 “Policies, Standards and Guidelines for Radiologic Technology Education”. The curriculum may be enhanced to adequately develop the identified institutional and program outcomes.
## Components

### a. Outline and Total Units of General Education (GE) Courses 72 units

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<td>Grammar and Composition II</td>
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<td>Sociology and Anthropology (with Population Education)</td>
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<table>
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Radiographic Technique, Film Processing and Analysis I  3
Radiographic Technique, Film Processing and Analysis II  4
Radiographic Positioning and Radiologic Procedures  7
Radiologic Contrast Examinations  3
Patient Care and Management  3
Administration, Ethics, and Jurisprudence  3
Radiobiology and Radiation Protection  3
Radiologic Pathology  3
Computed Tomography Scan  3
Magnetic Resonance Imaging  3
Interventional Radiology  3
Ultrasonography  3
Radiotherapy  3
Nuclear Medicine  3
Quality Assurance and Quality Control  3
Seminar  3
Clinical Education I  18
Clinical Education II  18

**d) Sum of the Total Units in the Curriculum**

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**Sample Program of Study**

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Sample Curriculum Map (Insert Curriculum Map)

This section provides an example of how to thread the identified program outcomes through the different courses in the curriculum. This should guide the development of the expected outcomes at different points within the program to ensure that the HEI is on-track in achieving the expected program outcomes.

**Key Legends:**
- **I** - Introduced: Basic concepts are merely introduced
- **P** - Practiced: The concepts and principles are presented with applications
- **D** - Demonstrated: I + P with skills acquisition

**Sample Means of Curriculum Delivery**

**Sample ID of Program Outcome 1.** Apply scientific knowledge, technical skills, and the proper work attitude and values necessary for the practice of Radiologic Technology

<table>
<thead>
<tr>
<th>Goal</th>
<th>Learning Objectives</th>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquire knowledge and perform radiographic procedures according to established protocols</td>
<td>Demonstrate skills in positioning patients properly during radiographic procedures</td>
<td>Basic human anatomy and physiology, radiographic positions and procedures</td>
<td>Positioning skills, Communication skills</td>
<td>Compassion, empathy, cultural sensitivity, professionalism</td>
</tr>
</tbody>
</table>

At the end of year level 3, RT students should be able to:

**Sample ID of Program Outcome 2.** Understand the scope of local and international professional practice
### Goal

**Learning Objectives**

At the end of year level 4, RT students should be able to:

<table>
<thead>
<tr>
<th>Understand and practice the Code of Ethics of the profession</th>
<th>Apply the Code of Professional Ethics of the profession</th>
<th>Specific provisions in the Code of Ethics</th>
<th>Application of the guiding principles of ethical practice to different situations</th>
<th>Professionalism, competence, empathy</th>
</tr>
</thead>
</table>

**Sample ID of Program Outcome 3.** Promote the value of life-long learning

<table>
<thead>
<tr>
<th>Express willingness to undergo further training in the different fields of specialization</th>
<th>Convey interest to undertake specialty training after graduation</th>
<th>Basic procedures in the different modalities</th>
<th>Computer skills, Instrumentation skills</th>
<th>Competence, professionalism, compassion, empathy</th>
</tr>
</thead>
</table>

**Sample ID of Program Outcome 4.** Implement radiation safety and protection measures

<table>
<thead>
<tr>
<th>Recognize the importance of implementing radiation protection measures</th>
<th>Understand the principles of radiation safety and protection</th>
<th>Methods and procedures for radiation protection</th>
<th>Analytical skills, Numerical skills</th>
<th>Resourcefulness, compassion, professionalism, competence, empathy</th>
</tr>
</thead>
</table>

**Sample ID of Program Outcome 5.** Demonstrate patient-focused care

<table>
<thead>
<tr>
<th>Explain and give</th>
<th>Instruct patients</th>
<th>Protocols and</th>
<th>Communication</th>
<th>Resourcefulness,</th>
</tr>
</thead>
</table>
Sample ID of Program Outcome 6. Show beginning leadership, management, and entrepreneurial skills

<table>
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<th>Goal</th>
<th>Learning Objectives</th>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitudes</th>
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</thead>
<tbody>
<tr>
<td>Propose ways to improve process flows and procedures in the Radiology Department</td>
<td>Demonstrate skills in judgment, problem-solving and decision-making in the radiology department</td>
<td>Basic principles in leadership and management</td>
<td>Leadership skills, Management skills, Communication skills, Interpersonal skills</td>
<td>Resourcefulness, professionalism, competence and empathy</td>
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Sample ID of Program Outcome 7. Engage in academic and research activities

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<th>Learning Objectives</th>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitudes</th>
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<tbody>
<tr>
<td>Conduct research studies related to Radiologic Technology</td>
<td>Appreciate the value of research in the profession</td>
<td>Research methodology, Statistical principles</td>
<td>Numerical skills, Computer skills, Communication skills</td>
<td>patience, resourcefulness, perseverance, innovativeness</td>
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Sample ID of Program Outcome 8. Advocate love of country and service to the Filipinos

<table>
<thead>
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<th>Goal</th>
<th>Learning Objectives</th>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitudes</th>
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</thead>
<tbody>
<tr>
<td>Participate in socio-civic activities in the</td>
<td>Engage in different community</td>
<td>Development plan of the community</td>
<td>Interpersonal skills, Communication</td>
<td>empathy, resourcefulness, creativity,</td>
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Sample Syllabus for a Selected Core Course

COURSE TITLE: Radiographic Positioning and Procedures

PRE-REQUISITES: Human Anatomy and Physiology
Medical Terminology
Radiographic Technique and Film Analysis 1

CO-REQUISITE: Radiographic Anatomy
Radiographic Contrast and Examination

PLACEMENT: Third Year, First Semester

CREDIT UNITS: 7 units (4 units lec / 3 units lab)

LECTURE HOURS: 4 hrs. lec /wk (72 hrs. lec/semester)
LABORATORY HOURS: 9 hrs lab/wk (162 hrs lab/semester)

COURSE DESCRIPTION:
This is the study of the general foundations of positioning techniques to obtain radiographic demonstration of anatomical structures of interest as well as specialized radiographic examinations of the different structures and organs without contrast media. This includes anatomic and radiographic positioning terms, source image receptor distance and tube film alignments, positioning principles, radiographic landmarks, exposure techniques, structures demonstrated and evaluation criteria of examinations of the different organs. Clinical competency is very essential and is done through positioning demonstration and return demonstrations as part of their laboratory exercises.

GENERAL OBJECTIVE:
At the end of the course, the student should demonstrate skills in patient preparation and proper positioning techniques for routine and specialized radiographic examinations without contrast media.

COURSE INTENDED LEARNING OUTCOMES:
At the end of the course, students should be able to:
1. Assess their clients who shall undergo routine examinations taking into consideration the requirements for each procedure.
2. Demonstrate how to conduct various radiographic procedures with confidence using standard protocols.
3. Produce good quality images of body organs.
4. Recognize emergency situations in clients undergoing radiographic examinations.
<table>
<thead>
<tr>
<th>COURSE OUTLINE</th>
<th>SPECIFIC OBJECTIVES</th>
<th>STRATEGIES /ACTIVITIES</th>
<th>TIME FRAME</th>
<th>EVALUATION</th>
<th>STUDENT LEARNING OUTCOMES</th>
</tr>
</thead>
</table>
| PRELIMS        | CHAPTER 1 – Introduction to Radiographic Positioning and Procedures | 1. Introduce how important patient care and preparation is to production of quality radiographs | Lecture:  
• Classroom discussion  
• Research works in the library and in the web  
• Film viewing and multimedia presentation.  
Laboratory:  
• Demonstration of the students of the procedures while guided by the teacher  
• Group discussions as seatwork  
• Accomplishment of the laboratory worksheets  
• Divide students in the class and do role playing with different cases of clients. | 3.5 hrs lec 10 hrs lab | Lecture:  
• Written exam  
• Moving Exams  
• Quizzes  
• Class recitation  
Laboratory:  
• Completion of the Laboratory Manual  
• Group activities (Film critics, Body landmarks, Body positioning)  
• Practical and oral exams using the rubrics | • Know and practice proper patient care and preparation to produce good quality radiographs  
• Understand the different types of image receptors used in radiography and identify parameters to be used in producing quality images  
• Understand the different terminologies used in radiography  
• Identify and explain different considerations in producing good quality images |
Body Habitus
7. Anatomic Terms
8. Radiographic Terms
9. Source – Image Receptors
10. Tube Film Alignment

CHAPTER II – Radiographic Procedures of the Upper Limbs
1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique
2. Radiographic Procedures
   a. Hands
   b. Wrist
   c. Radius and Ulna
   d. Elbow
   e. Humerus

1. Discuss, explain and demonstrate the different radiographic procedures that show different images of the upper extremities and identify changes in images based on the request of the radiologist

Lecture:
- Classroom discussion
- Research works in the library and in the web on common pathologies demonstrated by different positions in the upper and lower limbs
- Multimedia presentation

Laboratory:
- Demonstration of the students of the procedures while guided by the teacher
- Actual performance of routine projections including film processing
- Group discussions as seatwork
- Accomplishment of the laboratory worksheets

5 hrs lec
15.5 hrs lab

CHAPTER III – Radiographic Procedures of the Lower Limbs
1. General

1. Discuss, explain and demonstrate the different radiographic procedures to show different images of the lower extremities and distinguish the changes of the image in every position

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Group activities (Film critics, Body landmarks, body positioning)
- Practical and oral exams using the rubrics

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Group activities (Film critics, Body landmarks, body positioning)
- Practical and oral exams using the rubrics

- Demonstrate the different radiographic procedures to show different images of the upper extremities and distinguish the changes of the image in every position
- Explain the procedures and relate it to clinical settings involving different cases

- Explain and demonstrate the different radiographic procedures to show different images of the lower extremities and identify
| Considerations | demonstrate the different radiographic procedures to show different images of the lower extremities and be able to identify changes in images based on the request of the radiologist | Lecture:  
- Classroom discussion  
- Research works in the library and in the web on common pathologies demonstrated by different positions in the upper and lower limbs  
- Multimedia presentation | Laboratory:  
- Demonstration of the students of the procedures while guided by the teacher  
- Actual performance of routine projections including film processing  
- Group discussions as seatwork  
- Accomplishment of the laboratory worksheets. | PRELIM EXAM  
- Review of Anatomy  
- Positioning Principles  
- Radiographic Landmarks  
- Exposure Technique  
- Radiographic Procedures  
  - Foot  
  - Ankle  
  - Tibia and Fibula  
  - Knee  
  - Patella  
  - Femur | land markings, body positioning)  
- Practical and oral exams using the rubrics | the differences in the images produced  
- Can do film critics on the images that are produced in relation to the projections used. |
CHAPTER IV – Radiographic Procedures of the Shoulder Girdle

1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique

2. Radiographic Procedures
   a. Scapula
   b. Clavicle
   c. Acromio-clavicular Joint
   d. Shoulder Joint

1. Discuss, explain, and demonstrate the different radiographic procedures to show different images of the shoulder girdles and be able to identify how the injury of the patient would affect proper positioning technique.

Lecture:
- Classroom discussion
- Research works in the library and in the web on common pathologies demonstrated by different positions
- Film Viewing and multimedia presentation

Laboratory:
- Demonstration of the students of the procedures while guided by the teacher
- Actual performance of routine projections including film processing
- Group discussions as seatwork
- Accomplishment of the laboratory worksheets
- Divide students in the class and do role playing with different cases of clients.

4 hrs lec 13 hrs lab

Discussion and demonstrate the different radiographic procedures to show different images of the shoulder girdles and identify how injury affects proper positioning.
- Recognize structures of interest in radiographs

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Group activities (Film critics, Body land markings, Body positioning)
- Practical and oral exams using the rubrics

4 hrs lec 12 hrs lab

CHAPTER V –

Discuss, explain, and demonstrate the different radiographic procedures to show different images of the shoulder girdles and identify how the injury would affect proper positioning technique.

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Group activities (Film critics, Body land markings, Body positioning)
- Practical and oral exams using the rubrics

4 hrs lec 12 hrs lab

Discuss, explain, and demonstrate the different radiographic procedures to show different images of the shoulder girdles and identify how the injury affects proper positioning.
- Recognize structures of interest in radiographs

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Group activities (Film critics, Body land markings, Body positioning)
- Practical and oral exams using the rubrics

4 hrs lec 12 hrs lab
**Radiographic Procedures of the Pelvic Girdle**

1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique

2. Radiographic Procedures
   a. Hip
   b. Hip Joint
   c. Acetabulum
   d. Symphysis Pubis

**CHAPTER VI – Radiographic Procedures of the Vertebral Column**

1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique

2. Radiographic Procedures
   a. Cervical
   b. Thoracic

- Discuss, explain, and demonstrate the different radiographic procedures to show different images of the pelvic girdle and identify how injury affects proper positioning technique.

**Lecture:**
- Classroom discussion
- Research works in the library and on the web on common pathologies demonstrated by different positions
- Multimedia presentation

**Laboratory:**
- Demonstration of the students of the procedures while guided by the teacher
- Actual performance of routine projections including film processing
- Group discussions as seatwork

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<th>Lecture:</th>
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<td>on common pathologies demonstrated by different positions</td>
<td>Quizzes Class recitation</td>
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<td>Multimedia presentation</td>
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- 5.5 hrs lec
- 10 hrs lab

- Explain and demonstrate the different radiographic procedures to show different images of the vertebral column and identify how injury affects proper positioning technique.

**Lecture:**
- Classroom discussion
- Research works in the library and on the web on common pathologies demonstrated by different positions
- Multimedia presentation

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<td>Group activities</td>
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<td>(Film critics, Body land markings, Body positioning)</td>
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<td>Multimedia presentation</td>
<td>Practical and oral exams using the rubrics</td>
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- 3 hrs lec
- 15.5 hrs lab

- 3 hrs lec
- 10 hrs lab

- Demonstrate the different radiographic procedures to show different images of the pelvic girdle and identify how injury affects proper positioning technique.

**Laboratory:**
- Completoin of the Laboratory Manual
- Group activities
- Practical and oral exams using the rubrics
c. Lumbar
d. Sacrum
e. Coccyx

MIDTERM EXAM

1. Discuss, explain, and demonstrate the different radiographic procedures to show different images of the bony thorax and thoracic cage and be able to identify how the injury of the patient and breathing maneuver would affect proper positioning technique.

Laboratory:
- Demonstration of the students of the procedures while guided by the teacher
- Actual performance of routine projections

10.5 hrs lec
30.5 hrs lab

SEMI FINALS

CHAPTER VII – Radiographic Procedures of the Bony Thorax and Thoracic Cage

1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique

2. Radiographic Procedures
   a. Lungs and Pleurae
   b. Chest and Heart
   c. Thoracic Cage
   d. Ribs

   CHAPTER VIII – Radiographic Procedures of the Skull

   1. General Considerations
      a. Review of Anatomy
      b. Positioning

   1. Discuss, explain, and demonstrate the different radiographic procedures to show different images of the skull and be able to identify how the injury of the patient and breathing maneuver would affect proper positioning technique.

Laboratory:
- Demonstration of the students of the procedures while guided by the teacher
- Multimedia presentation

Laboratory:
- Demonstration of the Laboratory Manual
- Group activities (Film critics, Body land markings, Body positioning) Practical and oral exams using the rubrics
- Completion of the laboratory worksheets.

Lecture:
- Classroom discussion
- Research works in the library and in the web on common pathologies demonstrated by different positions

Lecture:
- Classroom discussion
- Research works

4.5 hrs lec
15 hrs lab

Laboratory:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Lecture:
- Written exam
- Moving Exams
- Quizzes
- Class recitation

Laboratory:
- Completion

- Demonstrate the different radiographic procedures to show the images of the bony thorax and thoracic cage and identify how injury affects proper positioning technique.

- Explain and demonstrate the different radiographic procedures to show different images of the skull and identify how patient injuries and breathing maneuvers affect proper positioning.

- Determine the requirements of
Principles
  c. Radiographic Landmarks
d. Exposure Technique
2. Radiographic Procedures
  a. Cranium
     a1. Frontal
     a2. Parietal
     a3. Occipital
     a4. Temporal
     a5. Sphenoid
     a6. Ethmoid
  b. Facial Bones
     b1. Nasal
     b2. Maxillary
     b3. Optical
     b4. Mandible
     b5. Zygomatic
     b6. Mastoid
     b7. Petromastoid
     b8. Paranasal Sinuses

SEMI FINAL EXAM
FINALS
CHAPTER IX – Trauma Radiography
1. General Considerations
  a. Review of Anatomy
  b. Positioning Principles
c. Radiographic Landmarks
d. Exposure Technique
2. Radiographic Procedures
  a. Limbs
  b. Vertebral Column
c. Skull

1. Discuss, explain and demonstrate the different radiographic procedures used to manage patients who are classified as traumatic and identify different techniques that would not add injury to patients.

Lecture: Classroom discussion
Research works in the library and in the web on common pathologies demonstrated by different positions
Multimedia presentation
Laboratory: Demonstration of the students of the procedures while guided by the teacher

1. Discuss, explain and demonstrate the different radiographic procedures in the library and in the web on common pathologies demonstrated by different positions
Multimedia presentation
Laboratory: Demonstration of the students of the procedures while guided by the teacher

Laboratory:
- Demonstration of the students of the procedures while guided by the teacher

3.5 hrs lec 10 hrs lab

Lecture:
Written Exam
Moving Exams
Quizzes
Class recitation
Laboratory:
Completion of the Laboratory Manual
Group activities (Film critics, Body land markings, body positioning)
Practical and oral exams using the rubrics
Accomplishment of the laboratory worksheet.

5 hrs lec 10 hrs lab

Lecture:
Written Exam
Moving Exams
Quizzes
Class recitation
Laboratory:
Completion of the Laboratory Manual
Group activities (Film critics, Body land markings, body positioning)
Practical and oral exams using the rubrics
Accomplishment of the laboratory worksheet.

- Explain and demonstrate the different radiographic procedures used for trauma clients taking into consideration the severity of their injuries.
- Determine through proper assessment the required projections to demonstrate structures without adding to the injury of patients and understand how important patient care and management is in the care of traumatic clients.
- Demonstrate the different radiographic procedures used to manage pediatric patients and use special techniques in
d. Pelvis
e. Chest and Lungs
f. Skeletal Survey

CHAPTER X – Pediatric Radiography
1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique
2. Radiographic Procedures

   and demonstrate the different radiographic procedures used to manage pediatric patients and adopt to their level of understanding to produce good quality images with minimal repeat radiographs

   Lecture:
   Classroom discussion
   Research works in the library and in the web on common pathologies demonstrated by different positions
   Multimedia presentation

   Laboratory:
   Demonstration of the procedures while guided by the teacher
   Actual performance of routine projections including film processing

   1. Discuss, explain and demonstrate the different routine procedures for mammography examinations and the different types of equipment and modalities

   Lecture:
   Classroom discussion
   Research works in the library and in the web on common pathologies demonstrated by different positions
   Multimedia presentation

   Laboratory:
   Demonstration of the procedures

   2 hrs lec

   5.5 hrs lab

   Laboratory worksheets

   laboratory worksheets

   providing images for proper interpretation

   • Demonstrate the different routine procedures for mammography examinations with the use of the special equipment designed for the purpose of this procedure
   • Understand the importance of proper management and patient care for clients to cooperate and for the attainment of excellent quality radiographs

   • Understand the use and importance of
**CHAPTER XII – Prenatal Radiography**

1. General Considerations
   a. Review of Anatomy
   b. Positioning Principles
   c. Radiographic Landmarks
   d. Exposure Technique

2. Radiographic Procedures

**FINAL EXAM**

Discuss, explain and demonstrate the different radiographic procedures used for prenatal studies.

**Lecture:**
- Classroom discussion
- Research works in the library and in the web
- Multimedia presentation

**Laboratory:**
- Demonstration of the procedures while guided by the teacher

Lecture:
- Written exam
- Quizzes
- Class recitation

Laboratory:
- Completion of the Laboratory Manual
- Practical and oral exams using the rubrics
- Accomplishment of the laboratory worksheets

- Demonstrate how the procedures are done with proper radiation protection applied to clients

prenatal radiography despite the wide use of ultrasound procedure
REFERENCES:

TEXTBOOK:

ADDITIONAL REFERENCES:
Sample Learning Plan

**Sample ID of Program Outcome 1.** Apply scientific knowledge, technical skills, and the proper work attitude and values necessary for the practice of Radiologic Technology

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Content</th>
<th>Teaching-Learning Activities</th>
<th>Assessment</th>
<th>Tools</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the end of year level 4, students should be able to demonstrate skills in performing radiographic procedures</td>
<td>Positioning and special radiographic procedures</td>
<td>Deductive and lecture</td>
<td>Lecture Demonstration</td>
<td>Performance</td>
<td>Checklist, log book, sample cases</td>
</tr>
</tbody>
</table>

**Sample ID of Program Outcome 2.** Understand the scope of local and international professional practice

<table>
<thead>
<tr>
<th>Learning Objectives</th>
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<th>Teaching-Learning Activities</th>
<th>Assessment</th>
<th>Tools</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the end of year level 4, students should be able to apply the Code of Professional Ethics of Radiologic Technology</td>
<td>Code of Professional Ethics for Radiologic Technology</td>
<td>Deductive</td>
<td>Discussion</td>
<td>Performance and Behavior</td>
<td>Rubrics</td>
</tr>
</tbody>
</table>

**Sample ID of Program Outcome 3.** Promote the value of life-long learning

<table>
<thead>
<tr>
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<th>Teaching-Learning Activities</th>
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<th>Tools</th>
<th>Resources</th>
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</thead>
<tbody>
<tr>
<td>At the end of year level 4,</td>
<td>New technologies</td>
<td>Deductive</td>
<td>Hands-on Training;</td>
<td>Performance</td>
<td>Rubrics</td>
</tr>
</tbody>
</table>
students should be able to engage in continuing training programs in different fields of Radiologic Technology specialization

<table>
<thead>
<tr>
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<th>Teaching-Learning Activities</th>
<th>Assessment</th>
<th>Tools</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the end of year level 4, students should be able to understand the facts and principles of radiation safety and protection</td>
<td>Principles and guidelines in radiation safety and protection</td>
<td>Deductive Lectures</td>
<td>Performance Rubrics</td>
<td>Textbooks, Manuals, Radiation Safety Guidelines</td>
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**Sample ID of Program Outcome 4.** Implement radiation safety and protection measures

**Sample ID of Program Outcome 5.** Demonstrate patient-focused care

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</thead>
<tbody>
<tr>
<td>At the end of year level 4, students should be able to analyze and instruct patients on examination procedures</td>
<td>Principles of verbal and non-verbal communication</td>
<td>Deductive Lecture, Demonstration</td>
<td>Role-playing Rubrics</td>
<td>Textbooks, Manuals, Journals</td>
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</table>
**Sample ID of Program Outcome 6.** Show beginning leadership, management, and entrepreneurial skills

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<td>Teaching</td>
<td>Learning</td>
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<tr>
<td>At the end of year level 4, students should be able to demonstrate skills in judgment, problem solving and decision making in the radiology department</td>
<td>Rad Tech Implementing Rules and Regulations, Code of Ethics, Board Resolutions</td>
<td>Deductive</td>
<td>Lecture-Discussion</td>
<td>Case Studies, Performance</td>
<td>Rubrics</td>
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**Sample ID of Program Outcome 7.** Engage in academic and research activities

<table>
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<td>Teaching</td>
<td>Learning</td>
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<tr>
<td>At the end of year level 4, students should be able to appreciate the value of and need for research</td>
<td>Research Principles and Techniques</td>
<td>Inductive and Deductive</td>
<td>Lecture, Case Study</td>
<td>Performance</td>
<td>Rubrics</td>
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**Sample ID of Program Outcome 8.** Advocate love of country and service to the Filipinos

<table>
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<tr>
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<th>Tools</th>
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<td></td>
<td>Teaching</td>
<td>Learning</td>
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<tr>
<td>At the end of Training</td>
<td>Deductive</td>
<td>Lecture,</td>
<td>Performance</td>
<td>Rubrics</td>
<td>Textbooks,</td>
</tr>
<tr>
<td>of year level 4, students should be able to engage in different community activities</td>
<td>Needs Assessment</td>
<td>Discussion</td>
<td>Training Manuals, Activity Books, Community Development Plan</td>
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