

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

Course name	Introduction to Medical Imaging
Course number	NURS4134
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	1
Credit hours (practical)	0
Course Prerequisites	

#### Course Objectives

- 1 - To introduce nursing students to the role and responsibilities of radiology nurses in patient care during radiologic procedures.
- 2 - To provide students with the knowledge and skills required to assess, monitor, and address the specific needs of patients undergoing radiology examinations
- 3 - To familiarize students with the correlation between radiological images and pathological findings.
- 4 - To provide students with the knowledge and skills to accurately interpret radiographic images in the context of specific diseases and conditions.
- 5 - To develop students ability to recognize and differentiate various pathological conditions based on radiological findings.
- 6 - To enhance students knowledge of different imaging modalities and their applications in diagnosing and monitoring diseases.

---

## Intended Learning Outcomes

<b>Knowledge and Understanding</b>	<ul style="list-style-type: none"><li>* Describe the role and responsibilities of radiology nurses in patient care during radiologic procedures.</li><li>* Understand the principles of radiologic imaging modalities commonly used in radiology nursing.</li></ul>
<b>Intellectual Skills</b>	<ul style="list-style-type: none"><li>* Analyze patient assessments to identify individualized nursing care needs during radiologic procedures.</li><li>* Analyze radiographic images to identify normal and abnormal findings relevant to patient care.</li><li>* Interpret radiologic reports and integrate findings into nursing assessments and care plans.</li></ul>
<b>Professional Skills</b>	<ul style="list-style-type: none"><li>* Perform nursing interventions to address patient needs during radiology procedures.</li><li>* Collaborate with radiologists, radiologic technologists, and other healthcare professionals to provide optimal patient care.</li></ul>
<b>General Skill</b>	<ul style="list-style-type: none"><li>* Utilize problem-solving skills to address challenges and ensure patient safety in the radiology department.</li><li>* Apply ethical principles and professional standards in the practice of radiology-related nursing care.</li></ul>

---

## Course Contents

1	-	Introduction to Medical Imaging, Techniques and Procedures
2	-	Role of Nursing in the Radiology Department
3	-	Indications and contraindications for different radiologic procedures
4	-	Nursing Assessment and Patient Care in the Radiology Department
5	-	Radiation Safety and Infection Control in Radiology Nursing
6	-	Musculoskeletal Radiology
7	-	Neuroradiology
8	-	Cardiac Radiology
9	-	Thoracic Radiology
10	-	Gastrointestinal Radiology
11	-	Genitourinary Radiology

---

## Teaching and Learning Methods

1	-	Lectures and presentations by the instructor
2	-	Interactive discussions and group activities
3	-	Case studies and analysis of radiographic images
4	-	Practical sessions for hands-on experience with radiographic equipment
5	-	Clinical rotations or observation in radiology departments
6	-	Guest lectures by radiology professionals
7	-	Audiovisual materials and online resources

---

## Teaching and Learning Methods for the Disabled Students

1	-	Provision of accessible learning materials (e.g., electronic formats, large print, braille)
2	-	Use of assistive technologies and adaptive equipment
3	-	Flexible assessment methods and accommodations based on individual needs
4	-	Supportive and inclusive learning environment

## Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
First Quiz and Assignment	Week 3	10
Second Quiz and Assignment	Week 6	10
Midterm Exam	Week 8	30
Third Quiz and Assignment	Week 10	10
Final Exam	Week 15	40

## Books and References

Essential books	Ana. (2014). Radiological & imaging nursing: Scopes & standards. American Nurses Association. Eisenberg, R. L., & Johnson, N. M. (2020). Comprehensive radiographic pathology E-book. Elsevier Health Sciences. Gupta, A. K., Garg, A., & Sandhu, M. S. (2021). Comprehensive textbook of diagnostic radiology: Four volume set. Jaypee Brothers Medical Publishers.
Recommended books	Advanced Practice and Leadership in Radiology Nursing GROSSMAN, V. A. (2020). Fast facts for the radiology nurse: An orientation and nursing care guide. Springer Publishing Company.