



Spring Semester AY 2023 – 2024	American University of Beirut	
	Faculty of Health Sciences – Division of Health Professions	
	<b>Medical Imaging Sciences Program</b>	
	Course number	<b>MIMG206</b>
	Course name	<b>Principle of Imaging I</b>

### Course Administration

Instructor: Hanane Merhi  
Office: AUBMC, Room SB-17 (Extension: 5075)  
Office hours: by appointment  
Email: [hm14@aub.edu.lb](mailto:hm14@aub.edu.lb)

### Class Time and Venue

Monday, Tuesday, and Thursday                      13:00 – 13:50                      Van Dyck 101

### Course Description

The MIMG206 course consists of a series of lectures and complementary lab sessions. After covering preliminary steps in radiography, radiographic nomenclature, positioning aids and accessory equipment, this course teaches radiographic anatomy and positioning by providing students with a description of radiographic procedures pertaining to upper and lower extremity, shoulder girdle, pelvis, thorax, vertebral column, and cranial bones. The theory and application of positioning, radiation protection techniques, and basic radiographic exposure, along with associated image critiques are covered in this course. The practical instruction and application of this course will be conducted in the laboratory class and will emphasize on patient positioning and protection, technique selection, and equipment manipulation.

### Course Learning Outcomes

By the end of the course, students will be able to:

- LO1. Define the basic medical and positioning terminologies commonly used in radiography.
- LO2. Identify and classify the most common fractures affecting the skeletal system on both diagrams and radiographs.
- LO3. Demonstrate a thorough understanding of patient care considerations pertaining to all radiographic procedures.
- LO4. Describe the positioning techniques employed to complete radiographic procedures that are utilized to demonstrate specific anatomical structures for each body part.
- LO5. Identify and apply specific projections required for each radiographic examination.
- LO6. Correctly position patients for each radiographic examination.
- LO7. Develop knowledge in patient care and apply the principles of radiation protection.
- LO8. Evaluate images for positioning, centering, appropriate anatomy and overall image quality and presence of artifact.
- LO9. Identify anatomic structures on both diagrams and radiographs for each body part being radiographed.

**Credits Allocated:**                      **3**

**Prerequisites:**                      **MIMG201 and HUMR246**

### Course Outline

Please note this is a tentative schedule. Any changes may be made at the instructor’s discretion.



Sessions' Date	Topic	Course Activities	Course Objectives
18 Jan	Orientation to course Explanation of the syllabus and course requirements	Reading Course Syllabus on Moodle Power-Point presentations posted on Moodle	-
22 Jan – 29 Jan	Revision of Anatomic Relationship Terms and Radiographic Positioning Terminology Preliminary steps in Radiography Fractures and Dislocations	Power-Point presentations posted on Moodle PDF teaching material posted on Moodle Viewing sessions Labelling exercises	1 – 2
<b>05 Feb</b>	<b>Test 1</b>		1 – 9
30 Jan – 22 Feb	Revision of osteology of Upper Extremity Upper Extremity Radiography	Power-Point presentations posted on Moodle PDF teaching material posted on Moodle Viewing sessions Labelling exercises	1 – 9
<b>04 Mar</b>	<b>Test 2</b>		1 – 9
26 Feb – 12 Mar	Revision of osteology of Lower Extremity Lower Extremity Radiography	Power-Point presentations posted on Moodle PDF teaching material posted on Moodle	1 – 9
14 Mar – 28 Mar	Revision of Osteology of Spine Spine Radiography	PDF teaching material posted on Moodle Viewing sessions Labelling exercises	1 – 9
<b>09 Apr</b>	<b>Test 3</b>		1 – 9
01 Apr – 08 Apr	Revision of Abdominal Anatomy Abdomen Radiography	Power-Point presentations posted on Moodle PDF teaching material posted on Moodle	1 – 9
09 Apr – 25 Apr	Revision of Osteology of Bony Thorax and Thoracic Viscera Bony Thorax and Thoracic Viscera Radiography	PDF teaching material posted on Moodle Viewing sessions Labelling exercises	
<b>TBD</b>	<b>Test 4</b>		1 – 9
<b>25 March session (Annunciation Day) needs to be compensated on Wednesday 20 March, 13:00 – 13:50</b>			
<b>01 April session (Latin Easter) needs to be compensated on Wednesday 03 April, 13:00 – 13:50</b>			

### Student Assessment

Assessment	Chapters	Percent
1. Attendance	-	5 %
2. Test 1	Fractures and Dislocations	10 %
3. Test 2	Upper Extremity Radiography	25 %
4. Test 3	Lower Extremity and Spine Radiography	35 %
5. Test 4	Abdomen Radiography Bony Thorax and Thoracic Viscera Radiography	25 %

### Course Resources

1. Lampignano, J. P. and Kendrick, L. E. (2018). *Textbook of Radiographic Positioning and Related Anatomy. 9th Edition.* St. Louis, Missouri, Elsevier Mosby.



2. Long, B.W., Rollins J. H. & Smith, B. J. (2016). *Merrill's Atlas of Radiographic Positioning and Procedures (Volumes 1, 2 and 3). 13th Edition. St. Louis, Missouri, Elsevier Mosby.*
3. Martensen, K.M. (2015). *Radiographic Image Analysis (Textbook and Workbook). 4th Edition. St. Louis, Missouri, Saunders Elsevier.*
4. Useful Websites: <http://www.wikiradiography.net>

## Course Policies and General Notes

### 1. Attendance:

- Students are expected to attend all classes and attendance will be taken in each lecture. A student is responsible for the work that is done and for any announcements made during student absence.
- Students who, during a term, miss more than one-fifth of the sessions of any course in the first twelve weeks of the term (six weeks in the case of the summer term) can be dropped from the course. A faculty member who drops a student from the course for this reason must have stated in the syllabus that attendance will be taken.
- Students who withdraw or are dropped for excessive absence from a course receive a grade of "W". Students who do not withdraw or cannot be dropped for excessive absence from a course will receive a grade of 40 (F).
- Students arriving late to class (>10 minutes) will be considered absent.

### 2. Academic integrity:

Education is demanding, and time management is essential. Do not hesitate to use the resources around you but do not cut corners. Cheating and plagiarism will not be tolerated. Please review the Student Code of Conduct in your handbook available on the following web page:

<https://www.aub.edu.lb/sao/Documents/Student%20Handbook%202016-2017.pdf> and familiarize yourself with definitions and penalties (p. 33).

If you're in doubt about what constitutes plagiarism, ask your course instructor(s) because it is your responsibility to know. The American University of Beirut has a strict anti-cheating and anti-plagiarism policy. Penalties include failing marks on the assignment in question, suspension or expulsion from university and a permanent mention of the disciplinary action in the student's records.

By signing up for this course, you confirm that you have read and accepted the terms and provisions of "AUB's Privacy Statement".

### 3. Examinations:

All written exams must be completed within the time period specified. Students who miss a scheduled examination or quiz must present an excuse considered valid by the instructor of the course. The only delays for the exam that will be considered by the course instructor(s) are for documented illness, death in the family, and personal/family emergency. Unless stated otherwise in the course syllabus, the course instructor should then require the student to take a make-up examination.

Only medical reports issued by an AUB Medical Center (AUBMC) doctor, or by the University Health Services will be accepted. Should there be a question about the validity of any excuse presented by the student, the matter should be referred to the appropriate faculty committee. Instructors should make sure there is no time conflict between an exam and a regularly scheduled course.

### 4. Students with Disabilities:

AUB strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a disability (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions), please do not hesitate to inform the Accessible Education Office. In order to ensure that you receive the support you need and to facilitate a smooth accommodations process, you must register with the Accessible Education Office (AEO) as soon as possible: [accessibility@aub.edu.lb](mailto:accessibility@aub.edu.lb); +961-1-350000, x3246; West Hall, 314.

### 5. Non-Discrimination – Title IX – AUB:

AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at [www.aub.edu.lb/titleix](http://www.aub.edu.lb/titleix).

**To report an incident**, contact the University's Title IX Coordinator Mitra Tauk at 01-350000 ext. 2514, or [titleix@aub.edu.lb](mailto:titleix@aub.edu.lb). An anonymous report may be submitted online via Ethics Point at [www.aub.ethicspoint.com](http://www.aub.ethicspoint.com).