

**FHS UG Syllabus
MIMG201**



Department of Medical Imaging Sciences
Faculty of Health Sciences
American University of Beirut

Course number: MIMG201
Course Name: Introduction to Medical Imaging
Fall Semester AY 2019 - 2020

Course Instructors:

Name: Marlen Salbashian
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Name: Hanane Merhi
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Office hours: By appointment

Class Time and Location:

Classes:

T 9:00 am – 09:50 am (Hanane Merhi)
R 9:00 am – 9:50 am (Marlen Salbashian)

Classroom: X-Ray School, AUBMC- Phase I- Floor: SB- Room #: SB21

Course Description:

The MIMG201 course is designed to provide an overview of the field of radiologic technology and its role in health care delivery. Students are oriented to academic and administrative structure, and the profession. Basic principles of radiation protection are introduced. The ethical and legal responsibilities of the profession are discussed.

Course Learning Objectives:

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

1. Demonstrate knowledge in basic word structure using common combining forms, suffixes, and prefixes.
2. Identify body planes, anatomic relationship and radiographic positioning terminologies and apply this to describe patient positioning techniques.
3. Describe the events surrounding the discovery of x-rays.
4. Explain the use of x-radiation in medicine.
5. State the characteristics of electromagnetic radiation.
6. List the properties of x-rays.

7. To consider the factors which have an influence on the quantity and/or quality of the x-ray beam.
8. Develop a basic knowledge about the role and function of different imaging modalities.
9. Radiation protection
10. Have an overview of imaging sciences and its role in health care delivery.
11. Be oriented to academic and administrative structure, key departments and personnel, and to the profession as a whole.
12. Understand the ethical and legal responsibilities of the profession relative to the health care delivery.

References - Required Readings

Notes:

All lectures, reading materials and exercises will be uploaded on Moodle (via the MIMG201 Moodle Site)

Books:

Cohen B.J. & Taylor J.J (2009). *Memmler's Structure and Function of the Human Body*. 9th Ed. Lippincott Williams & Wilkins
 Davies, J. J. (2015). *Illustrated Guide to Medical Terminology*. 2nd Ed. Cengage Learning
 Oppelt A. (2005). *Imaging Systems for Medical Diagnostics*. Publicis Corporate Publishing.
 Seeram, E. (2011). *Digital Radiography. An Introduction*. Delmar
 Thierer N., Nelson D., Ward J. K. and Young L. T. (2010). *Medical Terminology Language for Health Care*. 3rd Ed. McGraw-Hill.
 Townsley, D.M. and Young Th.A. (2007). *Ethical & Legal Issues for Imaging Professionals*. Mosby Elsevier.

Course Requirements and Student Evaluations:

	Assessment	Percent	Linked to which objectives?
A.	Attendance and Class Contribution	5	All
B.	Test 1 (General anatomy, medical and radiographic positioning terminologies)	30	1-2
C.	Test 2 (Into to Radiological Physics)	30	3-8
D.	Test 4 (Radiation protection, health care, ethical and legal issues)	35	9-12

N.B.: The passing grade for the course is 70%

Credits Allocated

2

Prerequisites

None

AUB/FHS Policies

✓ *Attendance*

Attendance is mandatory, and attendance will be taken in each lecture. You are expected to attend all classes punctually and participate in classroom activities. You are required to co-operate with the signing-in procedure. If you miss a class, it is your responsibility to make up for the material missed and inquire about any announcements made. Persistent absence without a valid cause for a significant number of teaching sessions will lead to an interview with the course advisor to explain the absence and may lead to a decision that the student leaves the course. As per AUB General Regulations, students who miss more than one-fifth of the sessions of any course in the first ten weeks of the semester (five weeks in the case of the summer term) are dropped from the course.

✓ *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 instructor 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.

✓ *Tests*

All tests must be completed within the time period specified; zero points will be given for a test if the student does not adhere to the time guidelines.

If for any reason a test is rescheduled, a petition should be signed by the students.

✓ *Make-up Tests*

Having several episodes of minor illness during the term should not affect your ability to sit for a test or to submit a coursework.

Students should not seek medical report for minor illnesses, particularly after they have recovered.

Make-up tests are only allowed whenever a student is prevented by severe illness from attending the examination and/or whenever the excuse presented by

the student deemed valid by the course instructor such as death in the family, and personal/family emergency.

✓ *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; [+961-1-350000](tel:+961-1-350000), x3246; West Hall, 314.

✓ *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. **To report an incident**, contact the University's Title IX Coordinator Trudi Hodges at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via Ethics Point at www.aub.ethicspoint.com.

✓ *MIMG201 Class Rules and Regulations*

• *Cell Phones*

The use of cell phones is prohibited in the classroom, even when set to vibrate. Cell phones are extremely disruptive to your classmates and to the instructor. Please make a point to turn off your cell phone before entering class and keep them off of desktops during classes.

• *Eating and Drinking*

Bottled water and other drinks i.e. coffee, juice is allowed during classes; eating is not allowed.

• *Holidays*

Sessions falling on holidays will be compensated during the Fall term 2018/19.

• *Arriving Late*

Arriving late for lectures can be very disruptive to the learning process of others.

If you do arrive late at a class for 15 minutes, the instructor has the right to refuse admission to those who arrive late.

- *Grades*

Tests will be provided to students for revision whenever corrected. Grades will be posted on Moodle as percentages after each test. Percentage for each test is available in the table (page 4). Averages are calculated from the percentage values of the tests.

- *Students' sick reports (University Health Services)*

<http://www.aubmc.org.lb/clinical/FM/Pages/main/UHS.aspx>

Students who present to UHS for an acute sickness may ask for a medical report.

In the case of students who present to ED for an emergency case, the resident in charge issues a sick leave form that needs to be signed by the ED attending physician.

The concerned student will submit the sick leave to the UHS attending physician for approval.

Students who submit a sick report from a physician outside AUBMC are not re-examined by a UHS doctor. The sick report is reviewed by the UHS Director, and the final decision is left to the student's professor.

N.B.: Students are given a medical report that they might use to justify missing classes or exams.

Detailed Course Outline

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

Date	Number of sessions	Topic	Course Activities	Course Objectives
3/9	1	Introductory Session	Reading Course Syllabus	None
5/9 – 3/12	4	Introduction to MIS and Healthcare	PDF Files	10-12
5/9 – 3/12	6	Radiation protection	PDF Files	9
5/9 – 3/12	4	Medicolegal aspects	PDF Files	10-12
5/9 – 3/12	7	General anatomy, medical and radiographic positioning terminologies	PP presentations PDF files 2 Lab sessions Exercises	1-2
5/9 – 3/12	6	Introduction to Radiological Physics	PP presentations PDF files 1 Lab session Exercises	3-8

Tests:

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

Test #	Material	Date	Time
Test 1	General anatomy, medical and radiographic positioning terminologies	Tuesday October 29, 2019	8:00 – 9:00 am
Test 2	Introduction to Radiological Physics	Thursday November 21, 2019	8:00 – 9:00 am
Test 3	Radiation protection, health care, ethical and legal issues	Tuesday December 3, 2019	8:00 – 9:00 am

Holidays:

Hijra New Year: Saturday August 31/2019
 Ashoura: Tuesday September 10/2019
 Prophet's Birthday: Sunday November 10/2019
 Independence Day: Friday November 22/2019