

Course Syllabus

1	Course title	Essentials & Ethics of Clinical Laboratory Profession	
2	Course number	0308101	
3	Credit hours	1 hr	
	Contact hours (theory, practical)	1 hr (1 Theory/ week)	
4	Prerequisites/co-requisites	-----	
5	Program title	BSc in Clinical Laboratory Sciences	
6	Program code	0308	
7	Awarding institution	The University of Jordan	
8	School	Science	
9	Department	Department of Clinical Laboratory Sciences	
10	Course level	First Year	
11	Year of study and semester (s)	Second semester 2023/2024	
12	Other department (s) involved in teaching the course	-----	
13	Main teaching language	English	
14	Delivery method	<input type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input checked="" type="checkbox"/> Fully online	
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	2/2024	

17 Course Coordinator:

Name: Dr. Dina Yamin	Contact hours: Monday 10:00 - 13:00
Office number: Biology Building 202	Phone number:
Email: d.yamin@ju.edu.jo	

18 Other instructors: None

Name:
Office number:
Phone number:
Email:
Contact hours:



19 Course Description:

The student will be introduced to the profession of medical laboratories and the clinical laboratory sciences, major disciplines in clinical laboratory sciences. Professional ethics, history, organization, certification, registration, licensure, regulatory agencies and governmental laws, basic concepts of laboratory practice introduced, including laboratory safety, phlebotomy, specimen processing, laboratory information systems, hospital and laboratory organization and certification. An introduction to the basic techniques in clinical laboratories, an overview that explains why laboratory tests are ordered and how interpretation of laboratory data is used in the care and welfare of patients.



20 Course aims and outcomes:

A- Aims:

This is an introductory course which can provide the student with some basic knowledge on medical laboratory science essentials and ethics

B- Students Learning Outcomes (SLOs):

For purposes of mapping the course SLOs to the CLS program SLOs, at the successful completion of the CLS program, graduates are expected to be able to:

SLO(1). Understand and apply the theoretical foundations of medical laboratory sciences to accurately calibrate and operate advanced laboratory equipment.

SLO(2). Demonstrate knowledge of safety protocols, Ministry of Health regulations, and environmental preservation practices when handling samples of pathogens and chemical/biological risks.

SLO(3). Acquire in-depth technical knowledge to stay abreast of scientific advancements and actively participate in local and global applied research in the field.

SLO(4). Perform diverse analyses and effectively interpret results for various clinical samples across laboratory disciplines such as hematology, clinical chemistry, microbiology, urine analysis, body fluids, molecular diagnostics, and immunology.

SLO(5). Apply practical training to solve complex problems, troubleshoot issues, and interpret results, ensuring a connection between data and specific medical conditions for precise diagnosis.

SLO(6). Show effective communication skills to convey information accurately and appropriately in a laboratory setting.

SLO(7). Demonstrate a commitment to lifelong learning and innovation by applying modern techniques, critically analyzing information, and contributing to the creation and application of new knowledge in medical laboratory sciences which fulfil the requirements of national and international CBD.

SLO(8). Uphold professional ethical behavior, ensuring the confidentiality of client information, and respecting client privacy throughout all aspects of laboratory work.

SLO(9). Apply managerial skills that align with quality assurance, accreditation, quality improvement, laboratory education, and resource management, showcasing competence in the effective administration of laboratory practices.

Descriptors	ILO/ID	Program SLOs	SLO (2)	SLO (3)	SLO (6)	SLO (7)	SLO (8)
		Course SLOs					
Knowledge	A1	Define laboratory	X				
	A2	Identify and enumerate the different kinds of medical laboratories.	X				
Skills	B1	Explain the role of medical laboratory services.	X			X	
	B2	State the laboratory rules and polices.	X		X	X	X
Competence	C1	Follow the Professional ethics	X	X	X	X	X
	C2	Apply ethical issues on several fields		X	X	X	X

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Introduction to Medical Laboratory Profession	A1,A2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
2	2.1	Medical Lab Facilities & Safety	A1,A2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
3	3.1	Customer service and dealing with patients	B1,B2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
4	4.1	Introduction to Ethics, Bioethics and biomedical ethics Historical and Current International ethical considerations - Nuremberg 1947, Geneva 1948, Helsinki 1964 and Belmont 1978 - Principles of biomedical ethics: Respect for persons/Autonomy, beneficence and non-maleficence, Justice - ISO 15189	B1,B2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
5	5.1	Ethics in Laboratory Medicine - ASCLS code of ethics: Duty to the patient, duty to colleagues and Profession, duty to society, pledge to the profession. - Areas in Lab Medicine practice where the formulation and implementation of ethical guidelines present challenges - Ethical Issues in the Laboratory (preanalytical phase, analytical phase and post analytical phase)	B1,B2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	

		Code of ethics for Medical Laboratory Technologists						
6	6.1	General application of ethical principles	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
7	7.1	Rules and regulations of Medical Laboratories Profession in Jordan - Personnel licensure: Lab Technician, Lab Specialist, Lab Manager /Director - Laboratory Requirements.	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
8	8.1	Recent topics in lab medicine with ethical considerations: Ethical issue of blood transfusion	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
9	9.1	Ethical issue of preimplantation genetic diagnosis	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
10	10.1	Ethical issue of prenatal testing	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
11	11.1	Ethical issue of DNA cloning (gene cloning, cell cloning, organism cloning)	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
12	12.1	Ethical issue of assisted reproduction	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
13	13.1	Ethical issue of Organ Transplantation	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
14	14.1	Ethical issue of Stem cell research	C1,C2	Fully Online	Moodle & Microsoft Teams	Synchronous	Quiz, Exam	
15	FINAL EXAM							

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Assignments	10			Every week	E-learning
Quizzes	10			Every week	E-learning
Mid Exam	30	1-6	All SLOs	Week 7	On campus
Final Exam	50	1-15	All SLOs	Week 16	On campus



23 Course Requirements

Students should have a computer, internet connection, webcam, account on a specific software/platform

24 Course Policies:

A- Attendance policies: attendance will be taken. No more than 15% of classes can be missed under any circumstances. The students are supposed to be on time for each session

B- Absences from exams and submitting assignments on time: Students who miss quizzes or examinations will automatically be assigned a mark of zero unless the respective instructor, or the Program Head, has been notified of the reason for absence *PRIOR* to the commencement of the exam. Acceptable reasons will be evaluated at the time (e.g., illness - medical certificate may be required, serious illness or death in the family, etc.). Supplemental examinations may be allowed in legitimate cases

C- Health and safety procedures: NA

D- Honesty policy regarding cheating, plagiarism, misbehavior: All students should comply with the university Honesty policy regarding cheating, plagiarism, misbehaviour

E- Grading policy: 20% assignments and quizzes, 30 % midterm exam and 50% final exam

F- Available university services that support achievement in the course: Textbook, computer, and internet access

25 References:

1. Davey R. X. (2020). Codes of Ethics for Laboratory Medicine: Definition, Structure and Procedures - A Narrative Review Based on Existing National Codes. *EJIFCC*, 31(4), 262–273.
 2. Datta S. K. (2020). Ethics in Laboratory Medicine: Perspectives and Challenges in Resource Limited Settings. *EJIFCC*, 31(4), 274–281.
 3. <https://www.cmltm.ca/about-us/code-of-ethics>
 4. Essentials of medical laboratory practice / Constance L. Lieseke, Elizabeth A. Zeibig. 2012 ISBN 978-0-8036-1899-2
- Ethical practice in laboratory medicine and forensic pathology. 1999. El-Nageh M, Linehan B, Corder S, Wells D, McKelvie H. WHO publications, Eastern Mediterranean series ISSN 1020-041X

**26 Additional information:**

None

Name of Course Coordinator: **-Dr. Dina Yamin**

Signature: *Dina Yamin* Date: -2-2024

Head of Curriculum Committee/Department: - **Dr. Suzan Matar**

Signature: *Suzan Matar*

Head of Department: - **Dr. Ahmed Abu siniyeh**

Signature: *Ahmed Abu siniyeh*

Head of Curriculum Committee/Faculty: **Dr. Muayyad Al Hseinat**

Signature: *Muayyad Al Hseinat*

Dean: **Prof. Mahmoud Jaghoub**

Signature: *Mahmoud Jaghoub*