Medical Laboratories Program

Program Learning Outcomes (PLOs)

Upon successful completion of ML program, graduate will:

1. **Demonstrate understanding of** the **basic** components of the laboratory testing (technical, procedural and problem solving) and be able to **correlate** its outcome to the disease conditions

2. Be able to **perform** the full range of clinical laboratory tests, independently

3. Be able to **communicate**, **participate** and **discuss** laboratory-related issues. Be capable of **conducting** basic literature research and scientific writing

4. Be able to **evaluate** and **solve** problems and technical errors related to the clinical laboratory testing process

5. Apply **bioethical** considerations and good laboratory practices (GLP). Be able to **instruct lab personnel** and **demonstrate** clinical laboratory management skills

List of Competencies (LoCs) that achieve PLOs

A. Knowledge and understanding:

1. Understand the human body systems and their functions in health and disease states
2. Identify the basic components of the laboratory testing process; including pre-analytical, analytical and post-analytical phases
3. Know the different laboratory tests regarding their requirements, proper selection and causes of discrepant results

B. Intellectual and technical skills:

1. Perform proficiently full range of clinical laboratory testing in different areas (microbiology, immunology, clinical chemistry, hematology, coagulation, immunohematology and molecular) and other emerging diagnostics
2. Analyze and interpret laboratory results and relate them to disease conditions
3. Participate in the evaluation of new techniques and procedures in the clinical laboratory and provide technical and administrative consulting on laboratory testing

C. Communication skills (personal and academic):

1. Able to communicate and discuss regarding laboratory results with patients and health-care professionals
2. Participate actively in classroom discussions, analyze case studies and be able to present scientific knowledge.

D. Professional and transferable skills:

1. Exercise and master ethical considerations and good laboratory practices (GLP)
2. Able to identify lab errors and solve related problems
3. Capable of instructing, guiding and training laboratory personnel and other health-care professional
4. Able to demonstrate clinical laboratory management and organization skills

Mapping

PLOs	List of Competencies (LoCs)											
	A1	A2	A3	B1	B2	B3	C1	C2	D1	D2	D3	D4
PLO1	X	X	X	X	X		X			X		
PLO2			X	X					X	X		
PLO3			X		X	X	X	X		X	X	
PLO4	X	X	X		X	X				X	X	X
PLO5		X	X	X			X	X	X		X	X