Quality Assurance Unit

Tanta University
Faculty of Medicine

Medicine and Surgery Bachelor Program – Credit Point

MSBP -CP

Course Specifications

[Tropical medicine and infectious diseases]

Semester 7

2022 -2023

Code: MED2 4102-TROP

1- Administrative Information

1. **Program title: Medicine and Surgery Bachelor Program – Credit Point MSBP -CP**
2. **Course title: Tropical medicine and infectious diseases**
3. **Course code: MED2 4102-TROP**
4. **Course coordinator: Prof. /Ferial El-Kalla**
5. **Department(s) offering the course: Tropical medicine and infectious diseases department**
6. **Academic year: 2023-2024**
7. **Semester in which the course is taught: - Level 4-Semester seven**
8. **Date of approval by department council: 3/9/2023**
9. **Date of approval by faculty council:**
   - **Council of the Faculty of Medicine, Tanta University: -**
10. **Credit points: 2**
11. **Taught hours:**

Clinical course covered in one week with a total of 42 contact hours:

- **Online lectures: 10 hours / week**
- **Clinical: 20 hours/week. Given as 2 hours for the clinical bed side teaching round 5 days/week, 2 hours for clinical case discussion three times /week, and 4 hours for students to take patient history and write clinical sheets.**
- **Problem based learning: Two hourly attendance sessions twice per week**

Non-contact hours: 18 hours

Total hours: 60 hours

Credit points	%	Online lectures	Practical/clinical	PBL	Assig.	Exam	hrs.
2 Credit points	Teaching hours 70%	10 online on Microsoft team	20	4		8	42
	Non-contact hours 30%			8	10 Incision academy		18

2- Professional Information

Academic standards adopted in this course is designed according to NARS 2017

3 – Course Description

- **Tropical medicine and infectious diseases, is the medical subspecialty dealing with the prevention, diagnosis, and treatment of infectious diseases as well as diseases endemic in Egypt and Tropical areas. The subspeciality also covers travel medicine.**

4– Overall Course Aim/Objectives

Overall Course Aim/Object Aim:

- **Allow the student to acquire basic scientific knowledge essential to practice medicine at the primary level of health, dealing with health problems commonly met with in clinical practice with proper awareness of the social and community contexts of health care.**
- **Prepare a physician capable of diagnosing, managing, controlling and preventing infectious diseases and diseases endemic in Egypt and the surrounding region.**
- **Prepare a physician suited to working within primary health care settings and following the ministry of health and population policies, regulations and protocols.**
- **Enable the student to acquire basic clinical skills including: history taking, physical examination; particularly abdominal examination, interpretation of diagnostic investigations and sharing in laying treatment plans.**
- **Enable the student to acquire basic hygiene and infection control principles.**
- **Enable the student to acquire, address, and demonstrate positive attitudes that will help him/her achieve long life continuous medical education (CME), and share in community health education.**

5 - Intended learning outcomes (ILOs)

By the end of the course, the graduate should be able to:

Competency Area I: The graduate as a health care provider

1.1. Take and record a structured, patient centered history.

1.1.1. Recognize necessary English and Arabic language medical terminology for appropriate learning and communication

1.1.2. Apply and document a complete or focused chest medical history in the outpatient, inpatient or emergency settings

1.2. Adopt an empathic and holistic approach to the patients and their problems.

1.2.1. Perform a complete or focused general examination and local abdominal examination including; inspection, palpation, percussion and auscultation, in acute and chronic illness appropriate to the age, sex. In ethical Manner

1.4. Perform appropriately timed full physical examination of patients appropriate to the age, gender, and clinical presentation of the patient.

1.4.1. describe patient's symptoms and physical signs in terms of anatomic, pathologic and functional diagnostic significances. Analysis of main cardinal infectious symptoms; pain, fever, vomiting, abdominal distention, tenesmus and jaundice.

1.4.2. Distinguish the etiology, clinical symptoms, signs, investigations, prognosis, complications and management of different types of endemic infections

1.4.3. Identify etiology, clinical features and complications of different types of hepatic focal lesions

1.4.4. Discuss etiology, pathogenesis, clinical categories, investigations and treatment guidelines of schistosomiasis.

1.4.5. Distinguish the different causes, pathology, pathogenesis, clinical presentation and complications of Heat related disorders

1.4.6. Design a differential diagnosis plan for patients with fever with splenomegally

1.4.7. Describe main differences between types of CNS infections.

1.4.8. Identify classification, etiology, clinical presentation and complications of fever with skin rash

1.4.9. Identify etiology, clinical picture and complications of fever with seizures

1.4.10. Discuss classification, various clinical presentations and complications of HIV/ AIDS and opportunistic infections.

1.4.11. Identify classification, causes and clinical presentation of Fever with skin rash

1.4.12. Identify definition, types, risk factors, clinical manifestations and diagnosis of ascites

1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.

1.6.1. Point out the most appropriate and cost effective diagnostic laboratory investigations (hematological Biochemical, Pathological and the other types of investigations for different infectious diseases to reach the proper final diagnosis within short time

1.6.2. Choose appropriate cost-effective investigations for cases of fever, lymphadenopathy, and splenomegaly.

1.6.3. Identify various investigations used for diagnosis of cases with Pyrexia of

unknown origin.

1.6.4. Recognize appropriate investigations for a case of HIV/ AIDS and opportunistic infections.

1.6.5. Select the proper investigations used for the diagnosis of post viral chronic liver disease and ascites.

1.6.6. Identify investigations for assessment and diagnosis of fever with splenomegaly or lymphadenopathy

1.6.7. Interpret ascitic fluid analysis for ascites.

1.6.8. Recognize appropriate investigations for diagnosis of hepatic focal lesions

1.6.9. Identify and interpret investigations for different types CNS infections

1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.

1.7.1. Classify factors that place individuals at risk for disease or injury, to determine strategies for appropriate response

1.7.2. Recognize risk factors for common infectious diseases as brucellosis, shigellosis, and toxoplasmosis.

1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.

1.8.1. Express systemic thinking and personal judgment in clinical problem solving (PBL: Problem Based Learning)

1.8.2. Construct a sheet including patient's symptoms and physical signs with an understanding in terms of anatomic, functional, pathologic and diagnostic significances.

1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM)

1.9.1. Interpret, analyze and evaluate the clinical findings and information limitations in order to recognize, define and prioritize management plans for various clinical problems.

1.9.7. Search for relevant information which helps in solving clinical problems (Web-based learning, Self-learning and PBL).

1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.

1.10.1. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation

1.10.2. Analyze complaint of the patient and interpret the present, past and family history into provisional diagnosis.

1.10.3. Integrate items of abdominal symptoms and signs with pathological changes in the liver and spleen into reasonable final diagnosis.

1.10.4. Recognize the correct methods of examination and their significance in approach to the disease.

1.13. Establish patient-centered management plans in partnership with the patient, using Evidence Based Medicine in management decisions.

1.13.1. Formulate a management plan for common Tropical diseases and acute emergencies

1.13.2. Apply main lines of treatment for different hepatic disorders and tumors

1.13.3. Recognize treatment options for Gastrointestinal tract infections and suppurative liver diseases

1.13.4. Review various management plans for heat related disorders and decision about the prognosis of heat related disorders in specific patients.

1.13.5. Formulate a proper management plan for ascites including both pharmacological and non-pharmacological therapy

1.13.6. Construct a management plan of various hepatic focal lesions

1.13.7. Formulate a management plan for pyrexia of unknown origin

1.13.9. Formulate management plan for adult patients with needle stick injuries

Competency Area II: The graduate as a health promoter

2.1 Identify the basic determinants of health and principles of health improvement.

2.1.1. Define necessary information about the basic principles of health promotion, prevention and control of common infectious diseases as brucellosis, viral hepatitis, schistosomiasis and toxoplasmosis.

2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks; endemic diseases, and prevalent chronic diseases.

2.4.2. Describe preventive methods for infectious diseases as Typhoid fever, brucellosis, viral hepatitis, schistosomiasis and toxoplasmosis.

2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.

2.6. Recognize the epidemiology of common diseases within his/her community, and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.

2.6.1. Identify the epidemiological indices, evolution, demography and biological variability of viral, bacterial, protozoal and helminthic infections common to Egypt and the Middle East.

Competency Area III: The graduate as a professional

3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.

3.1.1. Adopt an empathic and holistic approach to the patients and their problems and provide care to patients who are unable to pay

3.1.2. Respect patient's rights involving them or their caretakers in management decision

3.1.3. Communicate clearly, sensitively and effectively with patients and their relatives and also, colleagues (from a variety of health and social care professions)

3.3. Respect the different cultural beliefs and values in the community they serve.

3.5. Ensure confidentiality and privacy of patients' information.

Competency Area IV: The graduate as a scholar and scientist

4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).

4.5.1. Identify the natural history of common infectious illnesses with understanding of the importance of risk factors, surveillance and screening for prevention and early detection of common disease and health problems

4.5.2. Describe the principles of management of common and life threatening illnesses including medical, surgical intervention (invasive and noninvasive) pain relief and palliative care

4.5.3. Recognize the etiology, pathogenesis, and complications of various Influenza viruses

4.5.4. Distinguish between different causes of cirrhotic liver.

4.7 Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.

4.7.1. Define pharmacological and non-pharmacological therapies including: drug effects/pharmacokinetics, dosage, drug-drug interactions and adverse reactions.

4.7.2. Recognize pharmacological principles for treatment of viral hepatitis

4.7.3. Discuss pharmacological aspects of some important diuretics in treatment of ascites

4.8 Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.

4.8.1. Interpret some clinical parameters such as biochemical blood tests, hematological tests, serology, molecular techniques, PCR, ascitic fluid analysis, and CSF analysis.

Competency Area V: The graduate as a member of the health team and the health care system

5.1 Recognize the important role played by other health care professions in patients' management.

5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management (Problem Based Learning PBL)

5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.

5.3.1 Implement collaborative teamwork during small group teaching (PBL).

5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system (PBL).

Competency Area VI: The graduate as a lifelong learner and researcher

6.3 Identify opportunities and use various resources for learning.

6.3.1 Interacts positively with colleagues, peers and professors on web pages.

6.3.2 Use various resources in collecting information (Web-based learning, Media).

6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice (Problem Based Learning PBL).

6.6 Effectively manage learning time and resources and set priorities (PBL and Assignment)

6.6.1 Achieve and perform the required duties from him on time (assignments).

6 – Course/ Course Contents

Course	Interactive Online lecture	TBL	Web based L	Patient L	Tutorial	Workshop			Small group teaching		Bedside T	Skill L.	Portfolio
						Media	Lab	Computer	CBL	PBL			
Tropical medicine &infectious diseases	√		√	√					√	√	√ √		

Topics	No of hours								ILOs covered
	Lectures (online)	Practical	History.	Bedside	BPL-	Web based learning	Assig	Total Hours	
Concepts of infection control									2.1,2.1.2,2.2,2.3,2.4,2.5,2.6,2.7,2.8,2.9, 5.1, 5.2, 5.3, 5.4, 5.10, 5.12
Pyrexia of unknown origin	1h				1h				1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.7, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
HIV/ AIDS and opportunistic infections	1h				1h				1.4.10, 1.6.4, 1.7.1, 1.7.2, 1.9.5, 1.13.1, 1.13.7, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2, 5.1.1, 5.1.2, 5.1.3
Typhoid fever	1/2h				1h				1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1,

Topics	No of hours								ILOs covered
	Lectures (online)	Practical	History.	Bedside	BPL-	Web based learning	Assig	Total Hours	
									4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Brucellosis	1h				1h	1h			1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Some protozoal infections:	1/2h				1h	1h			1.1, 1.1.1, 1.1.2, 1.1.3, 1.2, 1.4, 1.4.2, 1.6, 1.6.1, 1.7, 1.7.1, 1.8, 1.8.1, 1.9, 1.9.1, 1.10, 1.12, 1.12.3, 1.13, 1.13.1,.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Some helminthic infections						1h			1.4.5, 1.6.1, 1.6.2, 1.9.5, 1.13.1, 1.13.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2
Schistosomiasis and its sequelae	1				1h	1/2h			1.4.6, 1.4.7, 1.6.1, 1.6.7, 1.7.1, 1.7.2, 2.1.1, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.5.4, 4.7.1, 4.7.2, 4.7.3, 4.8.1, 5.1.1, 5.1.2, 5.1.3
CNS infections	1/2h				1h	1/2h			1.4.7, 1.6.9, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.5.4, 4.7.1, 4.7.2, 4.7.3, 4.8.1
Infectious diarrhea and dysentery	1				1h	1/2h			1.1, 1.1.1, 1.1.2, 1.1.3, 1.2, 1.4, 1.4.2, 1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2

Topics	No of hours								ILOs covered
	Lectures (online)	Practical	History.	Bedside	BPL-	Web based learning	Assig	Total Hours	
Infectious causes of jaundice	1/2h				1h	1/2h			1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Viral hepatitis & sequelae	1/2h				1h	1/2h			1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, ,2.1.1,2.4.2,2.6.1, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Spontaneous bacterial peritonitis	1/2h				1h	1/2h			1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Heat disorders	1/2h					1/2h			1.4.5, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.5, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Viral hemorrhagic fevers	1/2h					1/2h			1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Emerging & re-emerging infections: Coronaviruses	1/2h					1/2h			1.1, 1.1.1, 1.1.2, 1.1.3, 1.2, 1.4, 1.4.2, 1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2

Topics	No of hours								ILOs covered
	Lectures (online)	Practical	History.	Bedside	BPL-	Web based learning	Assig	Total Hours	
Influenza viruses	1/2h					1/2h			1.4.8, 1.6.3, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1, 6.3.1, 6.3.2
Total	10h	6h	4h	10h	12h		8h	60h	

Item	Time schedule	Teaching hours/week
Online lectures	10 times /week	10h/week
Practical /classes	3 times /week	6 h/ week
Small groups (PBL)	2 times/ week	4h + 8h non-contact/week
Bedside teaching	5 times/ week	10h /week
History taking & sheet writing		4h/ week
Online training courses (Incision academy)	4 courses /week	10 non-contact h/week
Exam practical (OSPE, OSCE), and quiz)		8 h
Total	60 hours	

8 - Student evaluation

8-1 COURSE POLICIES

8.1.1. Attendance:

Attendance is mandatory to all sessions. Due to the course emphasis in developing skills and not only knowledge, the students' participation in all course activities is critical. Students who expect to be late for a mandatory class, or small group session for any reason must contact the course director before the start of class. Unexcused absences demonstrate unprofessional behavior by the student and marks are deducted.

8-1-2 Remediation of Unsatisfactory Performance in Course

A student who performs below the satisfactory level will be reported to the course director for the purpose of developing a formal remediation plan which will established by the course director and the student.

8-1-3 Missing tests

- **Students with sufficient reason for missing a test will have no grade for the missed test and their mean grade for tests will be based only on those that they completed.**
- **Students missing a test without sufficient reason will have a zero as grade for the missed tests, which will be incorporated to obtain the mean grade for their tests and the final grade for the course.**

8-2 Course assessment:

1. Incision academy courses (Electronic) and logbook.

2. Written exams: MCQs, ultra-short essay and case studies (problem solving) (electronic or paper based).

3. Practical skills assessment: Objective Structured Clinical Exam (OSCE) and (OSPE)

8-3 Course assessment schedule and grading:

Grades are obtained based on the following complementary assessments:

Assessment Method	Date	Description	ILOs/Competencies assessed	Marks	% of Total
1. Continuous assessment	Throughout the week	• PBL • Log book • Incision academy courses • Quiz	1.1, 1.2, 1.4, 1.6, 1.7, 1.8, , 1.9, , 1.10, 1.12, 1.13, 1.14, 4.5, 4.6	14	30%
2. Mid-term written exam	Midterm	MCQs	1.1, 1.2, 1.4, 1.6, 1.7, 1.8, , 1.9, ,	4	10%

Assessment Method	Date	Description	ILOs/Competencies assessed	Marks	% of Total
			1.10, 1.12, 1.13, 1.14		
3. Final written exam	End semester	MCQ & Ultra-short	1.1, 1.2, 1.4, 1.6, 1.7, 1.8, , 1.9, , 1.10, 1.12, 1.13, 1.14	8	30%
4. Practical exam	End round	OSCE & OSPE	1.1, 1.2, 1.4, 1.6, 1.7, 1.8, , 1.9, , 1.10, 1.12, 1.13, 1.14	14	30%
Total				40	100%

9. Facilities required

- Online lectures halls.
- Rooms for small group teaching.
- White board.
- Audiovisual aid (data shows).
- Faculty library.
- Electronic library
- Beds and patients (Tanta University Hospital) of the department

10 - List of references

10.1 Department e book

Available for download on the department page of the university website.

Registration number: 14773/2016

ISBN: 978 977 904 076 9

7.2- Course notes

- Handout of the lectures
- Approved national books

7.3 Text books

- Glynn, M., and Drake, M.D. (2012): Hutchison's clinical methods: An Integrated Approach to Clinical Practice 23rd ed. Edinburgh: Saunders.

- Colledge, N. R., Walker, B. R., Ralston, S., & Davidson, S. (2014). Davidson's principles and practice of medicine 22nd ed. Edinburgh: Churchill Livingstone/Elsevier.
- Kumar, P. J., & Clark, M. L. (2017); Kumar & Clark clinical medicine 9th ed. Edinburgh: Saunders.

7.4 Recommended books

- Beeching, N. and Gill, G. (2014): Tropical Medicine, lecture notes 7th ed. Wiley Blackwell.
- Macleod, J. G., Japp, A. G., Robertson, C., Hennessey, I. A. M., & Elsevier (Amsterdam). (2013). Macleod's clinical diagnosis. Edinburgh: Churchill Livingstone/Elsevier.
- Douglas, G., Nicol, F. and Robertson, C. (2013): Macleod's clinical examination 13th edition. Edinburgh: Churchill Livingstone, Elsevier.

7.5 Periodicals and web sites

- **Web site:** www.tanta.edu.eg/faculties/medicine/departments/tropical
- **www.nlm.ncbi.gov**
- **www.gastrojounal.org**
- Royal society of tropical medicine and hygiene
- CDs in electronic library

We verify that the above course and the analysis of students and external evaluator opinions are accurate.

Course coordinators:

Name: Ferial El-Kalla Signature: ……..

Name: Abdelrahman Kobtan Signature: ……..

Head of Tropical Medicine Department:

Name: Ferial El-Kalla Signature ……..

Head of quality assurance unit:

Name: Deena Ziada Signature……

A) Summary of topics matched with competencies' domains ILOs in the course

Topics	Health care provider	Professionalism	Scholar and scientist	Health team &system	LLL & researcher
Online Lectures					
Concepts of infection control			√		
Pyrexia of unknown origin			√		√
HIV/ AIDS and opportunistic infections	√		√		√
Typhoid fever	√		√		√
Brucellosis	√		√	√	√
Some protozoal infections:	√		√		√
Some helminthic infections	√		√		√
Schistosomiasis and its sequelae	√		√		√
CNS infections	√		√	√	√
Infectious diarrhea and dysentery	√		√	√	√
Infectious causes of jaundice	√		√	√	√
Viral hepatitis & sequelae	√		√	√	√
Spontaneous bacterial peritonitis	√		√	√	√
Heat disorders	√		√	√	√
Viral hemorrhagic fevers	√		√	√	√
Emerging & re- emerging infections: Coronaviruses	√		√	√	√
Influenza viruses	√		√	√	√
Practical					

C) Course – program ILOs Matrix

Course ILOs / Program ILOs		Health care provider									Health promotor				Professionalism			Scholar & scientist		Health team & system			LLL & researche		
		1.1	1.2	1.4	1.6	1.7	1.8	1.9	1.10	1.13	2.1	2.4	2.5	2.6	3.1	3.3	3.5	4.5	4.8	5.1	5.2	5.4	6.3	6.4	6.6
Competency 1	1.1	*																							
	1.2		*																						
	1.3.																								
	1.4.			*																					
	1.5.																								
	1.6.				*																				
	1.7.					*																			
	1.8						*																		
	1.9							*																	
	1.10								*																
	1.11																								
	1.12																								
	1.13									*															

Course ILOs / Program ILOs		Health care provider									Health promotor				Professionalism			Scholar & scientist		Health team & system			LLL & researche		
		1.1	1.2	1.4	1.6	1.7	1.8	1.9	1.10	1.13	2.1	2.4	2.5	2.6	3.1	3.3	3.5	4.5	4.8	5.1	5.2	5.4	6.3	6.4	6.6
	1.14																								
	1.15																								
	1.16																								
	1.17																								
Competency area 2	2.1										*														
	2.2																								
	2.3																								
	2.4											*													
	2.5												*												
	2.6													*											
	2.7																								
	2.8																								
	2.9																								
Competency 3	3.1.														*										
	3.2.																								
	3.3.															*									
	3.4.																								
	3.5.																*								
	3.6.																								
	3.7.																								
	3.8																								
	3.9																								
Competency	4.1.																								

Course ILOs / Program ILOs		Health care provider									Health promotor				Professionalism			Scholar & scientist		Health team & system			LLL & researche		
		1.1	1.2	1.4	1.6	1.7	1.8	1.9	1.10	1.13	2.1	2.4	2.5	2.6	3.1	3.3	3.5	4.5	4.8	5.1	5.2	5.4	6.3	6.4	6.6
	4.2.																								
	4.3.																								
	4.4.																								
	4.5																	*							
	4.6																								
	4.7																								
	4.8																		*						
	4.9																								
Competency 5	5.1																			*					
	5.2																				*				
	5.3																								
	5.4																					*			
	5.5																								
	5.6																								
	5.7																								
	5.8																								
	5.9																								
	5.10																								
	5.11																								
	5.12																								
Competency 6	6.1																								
	6.2																								
	6.3																						*		

Course ILOs / Program ILOs		Health care provider									Health promotor				Professionalism			Scholar & scientist		Health team & system			LLL & researche		
		1.1	1.2	1.4	1.6	1.7	1.8	1.9	1.10	1.13	2.1	2.4	2.5	2.6	3.1	3.3	3.5	4.5	4.8	5.1	5.2	5.4	6.3	6.4	6.6
	6.4																							*	
	6.5																								
	6.6																								*
	6.7																								
	6.8																								
	6.9																								
	6.10																								