# RAWALPINDI MEDICAL UNIVERSITY DEPARTMENT OF MEDICAL EDUCATION



#### IMPLEMENTATION OF LONGITUDINAL COURSES











#### LONGITUDINAL COURSES

Bioethics, IUGRC, Family Medicine, Artificial Intelligence



#### **Bioethics Curriculum First Year MBBS**

		Theoretical	Component (Integ	grated Bioethics Method	ls -1)
Broad	Major Syllabus With	Learning Objectives	Teaching	Assessment Tools	Suggested Reading Sources
Topic	Sub-Topics		Strategy		
			Session		
			Time: 6		
			Cognitive		
	Discussion will	At the end of the	LGIS 1hr	1 MCQs of level C1	Guidelines and Teachers Handbook for Introducing
	cover;	session students	contact session	to C3 will cover this	Bioethics to Medical and Dental Students
	• Introduction to the	should be able to;	in 2-4 parallel	session teachings in	
	Hippocratic Oath (5th		classes will be	relevant block	http://nbcpakistan.org.pk/assets/may-16-bioethics-
	Century BCE), basis	• Appraise the	conducted by	examination in pool	facilitator-bookmay-16%2C-2017.pdf
	of modern oaths	historical perspective	Senior Faculty	of total 04 MCQs.	
SS	administered to	of Hippocratic Oath	from basic	Result / marks	Pakistan Medical and Dental Council, and Higher
thi	medical graduates	(5th Century BCE).	sciences	obtained will	Education Commission, Islamabad. Curriculum of
E	TT 1 4 1	C2	(Anatomy,	contribute towards	MBBS. Date unknown [cited 2019 Jun 30].  Available from:
lica	• Understand	. TT., 1.,4., 1 <sup>1</sup> ., 41.	Physiology & Biochemistry)	Internal assessment (IA) in 1 <sup>st</sup> Prof.	http://pmdc.org.pk/LinkClick.aspx?fileticket=EKfB
\  Introduction to History of Medical Ethics	evolution of	• Understanding the	Biochemismy)	MBBS exam.	IOSDTkE%3d&tabid=102∣=556
l Jo	contemporary bioethics, its	beginnings of Contemporary		WIDDS Exam.	WHO: Module for Teaching Medical Ethics to
, A	characteristics and	Bioethics to address			Undergraduates
/ \	relevance to research	ethical dilemmas			file:///C:/Users/drkas/Downloads/WHO%20Module
	and practice	raised by rapid			%20for%20Teaching%20Medical%20Ethics%20to
to	and practice	advances in medical			%20Undergraduate.pdf
on		science and			
l cti		biotechnology. C2			
odt		010000111101055. 02			
ntr					

			Sessi Time:6		
Islamic concept of Bioethics	•Islamic concept of Bioethics: Perception, Scope and Application in medical and healthcare	At the end of the session students should be able to;  • Enlist 5 principles of medical Ethics. C1  • Correlate the concept of Islamic principles of medical ethics with its application in medical and healthcare settings .C2	LGIS 1hr contact session in 2-4 parallel classes will be conducted by Senior Faculty from basic sciences (Anatomy, Physiology & Biochemistry)	1 MCQs of level C1 to C3 will cover this session teachings in relevant block examination in pool of total 04 MCQs. Result / marks obtained will contribute towards Internal assessment (IA) in 1st Prof. MBBS exam.	Regional Committee for the EM/RC52/7 Eastern Mediterranean Islamic code of medical and health ethics https://applications.emro.who.int/docs/em_rc52_7 en.pdf  Islam and the four principles of medical ethics Mustafa, Y. (2014). Islam and the four principles of medical ethics. Journal of Medical Ethics, 40(7), 479–483. doi:10.1136/medethics-2012-101309  Ahmed AS (1993) Living Islam. (BBC Books, London), pp 21–56.Google Scholar Gatrad AR, Sheikh A  Medical ethics and Islam: principles and practice. Archives of Disease in Childhood 2001;84:72-75.
			Sessi Time: 6		
Introduction to Professional Ethics and PM&DC Code of Conduct	Discussion will cover; • Introduction to Professional Ethics and PM&DC Code of Conduct • Purpose of medical code of conduct by Regulatory body PM&DC covering following subtopics • What Is the 'Professional Ethics and Code of Conduct'?	At the end of the session students should be able to  • Cognizant with need for professional code of conduct by PM&DC.C1  • Elaborate the purpose and relevance for medical code of conduct at	LGIS 1hr contact session in 2-4 parallel classes conducted by Senior faculty	1 MCQs of level C1 to C3 will cover this session teachings in relevant block examination in pool of total 04 MCQs. Result / marks obtained will contribute towards Internal assessment (IA) in 1st Prof. MBBS exam.	PMDC Code of Ethics: http://www.pmdc.org.pk/LinkClick.aspx?fileticketv5WmQYMvhz4%3D&tabid=102∣=554

	<ul> <li>Why to Have the Code of Conduct?</li> <li>Who Needs to Follow the Code of Conduct?</li> <li>Who is it for?</li> <li>What Are the Code of Conduct Requirements?</li> </ul>	undergraduate level . C2			
			Sessi		
- I	M . C II 1	T ' Ol' '	Time: 6		C (ID P C
Broad Topic	Major Syllabus with Sub-Topics	Learning Objectives	Teaching Strategy	Assessment Tools And	Suggested Reading Sources
	Discussion on Health	At the end of the	LGIS	1 MCQs of level C1	Guidelines and Teachers Handbook for
	Research ethics	session students	1hr contact	to C3 will cover this	Introducing
	focusing;	should be able to;	session in	session teachings in	Bioethics to Medical and Dental Students
			2-4 parallel	relevant block	
	•Historical	• Explain the meaning	classes,	examination in pool	http://nbcpakistan.org.pk/assets/may-16-bioethics-
	perspective of	of the term	Conducted by	of total 04 MCQs.	facilitator-bookmay-16%2C-2017.pdf

Topic	Sub-Topics		Strategy	Allu	
	Discussion on Health	At the end of the	LGIS	1 MCQs of level C1	Guidelines and Teachers Handbook for
	Research ethics	session students	1hr contact	to C3 will cover this	Introducing
	focusing;	should be able to;	session in	session teachings in	Bioethics to Medical and Dental Students
			2-4 parallel	relevant block	
	•Historical	• Explain the meaning	classes,	examination in pool	http://nbcpakistan.org.pk/assets/may-16-bioethics-
	perspective of	of the term	Conducted by	of total 04 MCQs.	facilitator-bookmay-16%2C-2017.pdf
ics	Tuskegee studies,	"ethics".C1	Senior faculty.	Result / marks	The Nuremberg Code:
Eft	Willow brook			obtained will	http://www.hhs.gov/ohrp/archive/nurcode.html
al [	Experiment	• Describe the		contribute towards	
dic		historical perspective		Internal assessment	10 WMA Declaration of Helsinki:
$\mathbb{A}_{e}$		of global development		(IA) in 1 <sup>st</sup> Prof.	http://www.wma.net/en/30publications/10policies/b
History of Medical Ethics	•Codes of medical	of medical ethics. C1		MBBS exam.	<u>3/</u>
Σ	ethics: traditional				
sto	foundations and	• Describe the codes			CIOMS Guidelines:
H	contemporary practice	of medical ethics and			http://www.cioms.ch/publications/layout_guide200
		their implications.C1			<u>2.pdf</u> .
	<ul> <li>Nuremburg code,</li> </ul>				
	Belmont report,	<ul> <li>Recognize ethical</li> </ul>			Nuffield Council on Bioethics Guidelines:
	Declaration of	issues relevant to the			http://www.sirc.org/news/nuffield.shtml
	Helsinki and	case situation and			
	importance of				

historical background of ethics in current research trends  • General ethical principles including explanation of 04 basic principles of	apply the ethical codes as appropriate. C2  • Discuss the development of indigenous ethical codes in the South-East Asian Region.  C2.
Beneficence, non- maleficence, respect and justice.	Demonstrate sensitivity to cultural
- Interpretation research ethics for; - Informed consent and confidentiality in research HR	diversity in medical care.C3
	Practical session-1
	Affective & Psychomotor domain

Broad	Major Syllabus with	<b>Learning Objectives</b>	Teaching	Assessment Tools	Suggested Reading Sources
Topic	Sub-Topics		Strategy	And	
Laboratory Ethics	Discussion will cover basic elements of Laboratory Ethics focusing;  • Importance of medical professionalism for the medical student; including respect and gratitude towards colleagues	At the end of the session students should be able to;  • Understand the importance of taking permission before performing procedures (drawing blood, administering injections etc.) during laboratory sessions .A1	Case based discussion in 2 hr contact session in 4-6 parallel classes conducted by faculty of respective departments  Role plays	Assignment based assessment under aggregate Marks (Internal Assessment)  Assignment to be uploaded on LMS	- Real life scenarios in form of Case base learning /problem based learning (PBL) To be share with students one week before the session  Introduction to criteria for assessment of behavior, code of conduct and professionalism at RMU

	<ul> <li>Code of conduct:         Collaboration,         partnership,         Teamwork ,         Maintaining dress code, religion obligations of medical doctor , focus on physicians' character, virtues and duties     </li> <li>Delineate the ethical consideration while performing procedures on real patients or simulated patients in Laboratory setting</li> </ul>	• Show Respects other health professional team members and complete assigned task in professional manner. A1  • Employ collaborative negotiation to resolve conflict, anger, confusion and misunderstanding. A2	Reflective writing		
Ethics of research involving animals	Scientific rationale for using animals in different phases of teachings of medical students	• Understand the importance of maintaining animals rights and dignity while performing animal experimentation	Small group interactive 4-6 interactive parallel sessions	Students seminar/ group presentation on proposed topic	https://www.nuffieldbioethics.org/wp-content/uploads/The-ethics-of-research-involving-animals-full-report.pdf

	-	Understand the	Short	Role plays	Cases in Medical Ethics
	• Historical	historical perspective	presentation:	Video demonstration	https://www.scu.edu/ethics/focusareas/bioethics/res
	perspective of famous	of medical ethics and	Ethical		ources/cases-in-medical-ethics-student-led-
	ethical dilemmas and	its relevance in	principles in	"The Deadly	discussions/
	its relevance with	development of	medical	Deception,"	WHO Handbook of Medical Ethics: Part 1/ Chapter
	development of codes	modern codes and law	practice	Nova video written,	1: Ethics and medical ethics and Chapter 2: Human
	and		•	produced and	civilization and medical ethics from WHO
	components of	<ul> <li>Explicate the</li> </ul>	Brainstorming:	directed by Denisce	Handbook of Medical Ethics, 2009
	contemporary	background of ethical	interactive	Di Anni, WGBH	
	bioethics (an	codes (Nuremburg	session to	Boston, 1993	George J Annas; Michael A Grodin, eds. The Nazi
Ethical Dilemma	individual	code) and importance	identify the	production.	doctors and the Nuremberg Code: human rights in
l E	components will be	of ethics in health	potential	[This video is owned	human experimentation, New York: OUP; 1992
)ile	expanded/repeated	research	breaches	by many libraries	
al I	using real cases from		of ethical	and is currently	Watts J. Tokyo Victims of Japan's notorious Unit
lic.	historical breaches in		principle in	distributed by Films	731 sue. Lancet. 2002 August 24; 360 (9333): 628
田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	ethics)		medical	for the Humanities	
			practice.	and Sciences, P.O.	Final Report of the Tuskegee Syphilis Study
			• Group work:	Box 205, Princeton,	Legacy Committee1. University of Virginia Health
			Measures to	NJ 08543-2053	Systems.
			promote	https://onlineethics.o	1996. Available from:
			ethical	rg/cases/ethics-	
			principles in	science-	http://www.hsl.virginia.edu/historical/medical_hist
			medical	<u>classroom/tuskegee-</u>	ory/bad_blood/report.cfm.
			practice.	syphilis-study	
					Tanne JH. President Obama apologises to
					Guatemala over 1940s syphilis study. News, BMJ.
					2010 October 4; 341: c5494.

## **Implementation of Biomedical Ethics Curriculum First Year MBBS**

	Theoretical Component (Integrated Bioethics Methods -1)					
Sr. No	Date/ Day	Time	Topics	Module		
1.	22-02-2023	10:00am – 11:00am	Introduction to History of Medical	Foundation Module		
	Wednesday		Ethics			
2.	31-03-2023	11:00am – 12:00pm	Islamic Concept of Bioethics	MSK-I Module		
	Wednesday					
3.	18-05-2023	11:00am – 12:00pm	Introduction to Professional Ethics			
	Thursday		and PM&DC Code of Conduct	MSK-II Module		
4.	10-06-2023	11:00am – 12:00pm	History of Medical Ethics			
	Saturday					
			<b>Practical Sessions</b>			
1.	08-08-2023	10:00am – 11:00am	Laboratory Ethics			
	Tuesday					
2.	15-08-2023	09:00am – 10:00am	Ethics of Research Involving	Blood & Immunity Module		
	Tuesday		Animals			
3.	18-08-2023	08:00am – 09:00am	Ethical Dilemma			
	Friday					

# **Integrated Undergraduate Research Curriculum (IUGRC) First Year MBBS**

	Theoretical Comp	ponent (4 LGIS
	Topic	Learning Objectives
LGIS1	Introduction to Health Research (HR) & Health	Define Health Research & Concept of Health research
	Research Methods (HRM)- an overview (what &	methods.
	why and how research)	Understand background and value of research in health
		& human development
		Elaborate Fundamental types and fields of health
		research covering;
		- Basic & Applied Research
		- Quantitative & Qualitative Research
		- Collaborative & Multidisciplinary research
		- Health Research triangle
		Conceptualize the drivers of research Including;
		- Curiosity
		- Health needs
		- Opportunity Profit
		Describe meanings of HR & HRM
		Appreciate role of HR in healthcare practices and
		human development
		Differentiate among various types and fields of HR
		Explain different drivers of HR
LGIS 2	Characteristics of research process and	Explain meanings of various characteristics of health
	researcher	research process so as to
		Differentiate research activity from non-research
		activity.
		Elaborate ingredients of researcher
		Appreciate the importance of commands in certain pre-
		requisite subjects & skills before undertaking a research study.
		Define Health Research

		Discuss the criteria for selection of a research topic  Elekante the terms of periods.
		• Elaborate the types of variable
T CIC A	D : CDd: : II II D I (III)	Differentiate between qualitative and quantitative data
LGIS 3	Basis of Ethics in Health Research (III)	Appreciate value of ethics in conduct of Health
		Research.
		• Explain basic ethical principles of health research.
		• Interpret the application of data collection ethics
		• Explain ethics of research methods
LGIS 4	Basis of Ethics in Health Research (IV)	• Narrate responsibility for ethics in HR.
		Explain Nuremburg code and importance of ethics in
		current research trends.
		Elaborate General ethical principles including explanation
		of 04 basic principles of Beneficence, non-maleficence,
	Provident Commence of the	respect and justice
		of IUGRC-1st Year MBBS
Students	(placement in 1 <sup>st</sup> Module) (work track &	In supervised session, at the end of the session, participants
Practical	assessment by Log-Book)	would be able to; (Los)
Session 1		1. Comprehend the "theme and scheme" of IUGRC-1 <sup>st</sup> Year
		Practical component.
Practical	(placement in 2nd Module) (work track &	In supervised session, after individual work sharing &
session 2	assessment by Log-Book)	supervised brainstorming (PAL) on ideas on broader areas
		UEIH-Poster formation, students will: (session outlines or Los)
		1. Identify specific areas of work within the border area of
		study done after 1st Practical session.
		2. Do earlier discussion on sub-topics to sub-groups on
		specific area or topic for UEIH for Poster formation.
Practical	(placement in 3 <sup>rd</sup> Module) (work track &	Present the individual work assigned before whole group.
session 3	assessment by Log-Book)	
	Present the individual work assigned before	
	whole group.	
Practical	(placement in 4 <sup>th</sup> Module) (work track &	Present initial format of the UEIH-Poster
session 4	assessment by Log-Book)	

Practical session 5	(placement in 5 <sup>th</sup> Module) (work track & assessment by Log-Book)	Discussion Poster Presentation  1. Write the scientific references under some format
Practical	wrap up session.	Review of task done in session 5 (Bringing it altogether)
session 6		

# Implementation of Integrated Undergraduate Research Curriculum First Year MBBS

Theoretical Component (Integrated Bioethics Methods -1)					
Sr. No	Date/ Day	Time	Topics	Module	
1.	16-02-2023	01:00pm - 02:00pm	Introduction to Health Research (HR) &		
	Thursday		Health Research Methods (HRM)		
2.	18-02-2023	01:00am – 02:00pm	Characteristics of research process and		
	Saturday		researcher	Foundation Module	
3.	23-02-2023	08:00am – 09:00am	Basis of Ethics in Health Research (III)		
	Thursday				
4.	02-03-2023	09:00am – 10:00am	Basis of Ethics in Health Research (IV)		
	Thursday				
5.	27-04-2023	10:00am – 11:00am			
	Thursday	11:00am – 12:00pm			
			Practical Component		
1.	01-06-2023	11:00am – 12:00pm	Comprehend the "theme and scheme" of		
	Thursday		IUGRC-1 <sup>st</sup> Year Practical component.		
2.	08-06-2023	10:00am – 12:00pm	Identify specific areas of work within the		
	Thursday		border area of study done after 1 <sup>st</sup> Practical		
			session.	MSK-II Module	
			Do earlier discussion on sub-topics to sub-		
			groups on specific area or topic for UEIH for		
			Poster formation.		
3.	17-08-2023	10:00am – 12:00pm	Present the individual work assigned before	Blood & Immunity	
	Thursday		whole group.		
4.	14-09-2023	10:00am – 11:00am	Present initial format of the UEIH-Poster	CVS Module	
	Thursday				
5.	14-10-2023	10:00am – 11:00am	Discussion on Poster Presentation	Respiration Module	
	Saturday		2. Write the scientific references under some		
			format		

#### **Artificial Intelligence (AI) First Year MBBS**

#### **Guest Lecture**



RAWALPINDI MEDICAL UNIVERSITY						
DOC. TITLE: NOTICES AND LETTERS						
DOCUMENT #: RMU- DME-SOP-18	Rev. #: 00	ISSUE #: 01	ISSUE DATE:13-09-2023			

OFFICE OF THE VICE CHANCELLOR RAWALPINDI MEDICAL UNIVERSITY RAWALPINDI. Ph.051-9290360, 051-9290358 Fax No.051-9290519, 051-9280462. Email: info@rmur.edu.pk.

No. R-23/ 13 H /RMU, Dated: 13/09/2023

#### **NOTIFICATION**

All respected faculty members and all students of First Year MBBS are hereby directed to attend the guest lecture on Artificial Intelligence by Dr. Syed Safwan Khalid (PHD/Post doc in Artificial Intelligence (AI) Associate Professor in Comsats University, Director of Artificial Intelligence in Epic games.

Venue: New Lecture Theater Complex Hall No. 02

Date: 14-09-2023

Time: 10:00am - 11:00am

Note: Students attendance is mandatory for above said session.

Prof. Dr. Muhammad Umar Vice Chancellor Rawalpindi Medical University Rawalpindi \*Artificial Intelligence was taught throughout the year in each LGIS relevant to topic

# **Artificial Intelligence (AI) First Year MBBS**

Theoretical Component (Integrated Bioethics Methods -1)					
Sr. No	Date/ Day	Time	Topics	Module	
1.	16-02-2023 Thursday	01:00pm – 02:00pm	Introduction to Health Research (HR) & Health Research Methods (HRM)		
2.	18-02-2023 Saturday	01:00am – 02:00pm	Characteristics of research process and researcher	Foundation Module	
3.	23-02-2023 Thursday	08:00am – 09:00am	Basis of Ethics in Health Research (III)		
4.	02-03-2023 Thursday	09:00am – 10:00am	Basis of Ethics in Health Research (IV)		
	_		Practical Component		
1.	01-06-2023 Thursday	11:00am – 12:00pm	Comprehend the "theme and scheme" of IUGRC-1 <sup>st</sup> Year Practical component.		
2.	08-06-2023 Thursday	10:00am – 12:00pm	Identify specific areas of work within the border area of study done after 1 <sup>st</sup> Practical session.  Do earlier discussion on sub-topics to subgroups on specific area or topic for UEIH for Poster formation.	MSK-II Module	
3.	17-08-2023 Thursday	10:00am – 12:00pm	Present the individual work assigned before whole group.	Blood & Immunity	
4.	14-09-2023 Thursday	10:00am – 11:00am	Present initial format of the UEIH-Poster	CVS Module	
5.	14-10-2023 Saturday	10:00am – 11:00am	<ul><li>3. Discussion on Poster Presentation</li><li>4. Write the scientific references under some format</li></ul>	Respiration Module	

## **Family Medicine First Year MBBS**

Theoretical Component (Integrated Bioethics Methods -1)							
Sr. No	Date/ Day	Time	Topics	Module			
1.	05-04-2023	10:30am – 11:30am	Approach to a patient with Body aches	MSK-I Module			
	Wednesday						
2.	13-09-2023	09:00am – 10:00am	Approach to a patient with Chest Pain	CVS Module			
	Wednesday						
3.	12-10-2023	11:00am – 12:00am	Approach to a patient with cough hemoptysis	Respiration Module			
	Thursday		& shortness of breath				