

INTEGRAL UNIVERSITY, LUCKNOW INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PARAMEDICAL SCIENCES

BACHELOR OF SCIENCE IN ANESTHESIOLOGY AND INTENSIVE CARE TECHNOLOGY (B.Sc.AICT)

SYLLABUS

YEAR/ SEMESTER: I/I



Integral University, Lucknow Department of Paramedical Sciences <u>Study and Evaluation Scheme</u>

Program: B.Sc. AICT

S.	S. Course N. code	Course Title	Type of Paper]	Evaluation Scheme				Credit	Total Credits	
14.	code	course mile	of i aper	L	Т	Р	СТ	ТА	Total	ESE	Total	creuit	
					THE	ORIES							
1	LT101	Human Anatomy- I	Core	3	1	0	40	20	60	40	100	3:1:0	4
2	LT102	Human Physiology-I	Core	3	1	0	40	20	60	40	100	3:1:0	4
3	LT103	Basic of Biochemistry	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	LT104	Community Health Care Issues	Core	3	1	0	40	20	60	40	100	3:1:0	4
5	LN101	Basic Professional Communication	Core	2	1	0	40	20	60	40	100	2:1:0	3
6	CS103	Introduction to Computers	Core	2	1	0	40	20	60	40	100	2:1:0	3
					PRAC	TICAL							
1	LT105	Human Anatomy- I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	LT106	Human Physiology-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	LT107	Basic of Biochemistry-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
		Total		16	06	06	360	180	540	360	900	25	25

Semester-I

S.	_		Tyme			A	ttributes				United Nation
3. N.	Course code	Course Title	Type of Paper	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	Sustainable Development Goal (SDGs)
		THEORIES									
1	AT101	Human Anatomy- I	Core		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	3,4
2	AT102	Human Physiology-I	Core	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	3,4
3	AT103	Basic of Biochemistry	Core	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	3,4
4	AT104	Community Health Care Issues	Core	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	3,4
5	LN101	Basic Professional Communication	Core			\checkmark				\checkmark	3,4,6
6	CS103	Introduction to Computers	Core	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	3,4
		PRACTICAL									
1	AT105	Human Anatomy- I Lab	Core	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	3,4
2	AT106	Human Physiology-I Lab	Core		\checkmark		\checkmark			\checkmark	3,4
3	AT107	Basic of Biochemistry-I Lab	Core		\checkmark					\checkmark	3,4

 L: Lecture
 T: Tutorials
 P: Practical
 CT: Class Test
 TA: Teacher Assessment ESE: End Semester Examination,

 AE= Ability enhancement, DSE- Discipline Specific Elective, Sessional Total: Class Test + Teacher Assessment
 Subject Total: Sessional Total + End Semester Examination (ESE)



Effective from Session: 2	2022-23											
Course Code	AT101	Title of the Course	HUMAN ANATOMY- I	L	Т	Р	С					
Year	Ι	Semester	Ι	3	1	0	4					
Pre-Requisite	Nil	Co-requisite	Nil	Nil								
Course Objectives	The student will be able to demonstrate knowledge in human anatomy as needed for the study and practice of medical											
course objectives	laboratory technology.											

	Course Outcomes
CO1	To learn about anatomical nomenclature, position, location & their function.
CO2	To study about classification of bone, Ossification of bone, type of cartilage, classifications of joints.
CO3	To learn about classification & function about Muscles, nervous & cardiovascular system
CO4	To learn about superior extremity muscles & superior extremity joints.
CO5	To learn about inferior extremity muscles & inferior extremity joints.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	GENERAL ANATOMY	a. Introduction and subdivisions of Anatomy.b. Anatomical nomenclature: Terms of Planes, Positions, Body parts and movements.c. Basic tissues of the body: Definition, location and their function.	6	CO1
2	OSTEOLOGY & ARTHROLOGY(Brief)	 a. Introduction, axial & appendicular skeleton, classification of bone based on shape and structure, structure of growing and adult long bone, ossification of bone, Types of cartilage, their characteristics features with example. b. Introduction to Arthrology: Definition and classifications of joints with example. Details of synovial joint - characteristics features, type with example, close pack and loose pack position. 	7	CO2
3	SYSTEMIC ANATOMY	 a. Brief About Myology: Classification of muscles and its characteristics features, Gross features of skeletal muscle, classification of muscle according to shape and fascicular architecture, action of muscles. b. Brief About Neurology: Subdivision of nervous system, structural organization of nervous system including types of neurons, ganglion. Introduction to spinal nerves, cranial nerves and autonomic nervous system. c. Brief About Cardiovascular System: Components of CVS, types of anastomoses, types of circulation, components of lymphatic systems and its functions. 	7	CO3
4	SUPERIOR EXTREMITY	 a. Surface landmarks and Introduction to superior extremity. b. Brief about Muscles and fascia, Pectoral region: Pectoral muscles, Scapular region and Back, Muscles of Arm, Forearm and Hand. c. Brief about Joints of superior extremity: Brief of shoulder joint, brief account of elbow joint & wrist joint and radioulner joint. 	10	CO4
5	INFERIOR EXTREMITY	 a. Introduction and surface landmarks of lower extremity. b. Brief about Muscles and fascia: Thigh: Brief account of thigh muscles. c. Brief about Gluteal region: Muscles of gluteal region. d. Compartment of leg, name of the muscles of leg, their action and nerve supply. e. Brief about Joints: Details of Hip and Knee joint, subtalar, tibio fibular joints. 	10	CO5
	nce Books:			
		y-Volume 1, 2, 3 CBS Publishers & Distributors. my with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.		
	ell-Clinical Anatomy by regions			
		nal and applied, Churchill Livingstone.		
		Anatomy Vol. I, II, III, Churchill Livingstone.		

Cunningham Manual of Practical Anatomy Vol. I, II, III, Churchill Livingstone. 6

Williams & Warwick, Gray's Anatomy-Churchill Livingstone. Basic Anatomy & Physiology by Smout and McDowell 7

e-Learning Source:

1. https://youtu.be/X5RUFXZZBH4

2. https://youtu.be/060_XNKwuOE

3. https://youtu.be/4Sab-2E4ZDI

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO	CO	102	105	104	105	100	107	100	10)	1010	1011	1012	1501	1502	1505	1504	1505
CO1	1	3	1	2	-	-	-	1	2	1	-	2	2	1	2	-	3
CO2	2	3	2	2	-	-	-	1	3	1	-	3	2	2	1	-	2
CO3	1	3	1	2	-	-	-	1	2	-	-	2	2	1	2	-	3
CO4	2	3	1	2	-	-	-	1	3	-	-	3	2	2	3	-	3
CO5	1	3	1	2	-	-	-	1	2	1	-	2	2	1	2	-	3

			Attibu	ites & SDGS									
Course Code	Course Title		Attributes										
	HUMAN ANATOMY-I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.				
							\checkmark	\checkmark	3,4				



Effective from Session	a: 2022-23									
Course Code	AT102	Title of the Course	HUMAN PHYSIOLOGY-I	L	Т	Р	С			
Year	Ι	Semester	Ι	3	T P 1 0	4				
Pre-Requisite	Nil	Co-requisite	Nil							
Course Objectives	The student will be laboratory technolog	I Semester I 3 1 0 4 Nil Co-requisite Nil Nil Student will be able to demonstrate knowledge in human physiology as needed for the study and practice of medical								

	Course Outcomes
CO1	To learn about Cell and cell division, Cellular movement, Osmosis, Dialysis.
CO2	To study about composition of blood ,morphology of cells, Hemoglobin ,ESR,MCV,MCH,MCHC, PT, APTT, BT, CT, ABO, Cross matching,
	etc.
CO3	Introduction of Respiratory System, Respiration measures, Regulation of respiration.
CO4	To learn about basic physiology of heart, blood circulation, Cardiac Cycle, etc
CO5	To learn about introduction and physiology of digestive system.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	GENERAL AND CELL PHYSIOLOGY	 Cell and cell division- Structure, Function and classification of cell. Cellular Movements: Endocytosis and Exocytosis, Molecules of cell. Transport across the cell membrane, Homeostasis. Diffusion, Osmosis, Bonding, Filtration, Dialysis, Surface Tension, Adsorption, Colloid. 	8	CO1
2	BLOOD	 Introduction of blood, Composition and function of blood, Blood cells morphology and development. Blood cells types and function, Composition and function of blood plasma and Blood clotting factor, Hemoglobin-structure, normal content, function, types. Erythropoisis. Erythrocyte sedimentation rate (ESR) and its significance, Hematocrit, PCV, MCV, MCH, MCHC, Blood volume, Prothrombin time, Clotting time, Bleeding time, Blood Group, ABO and Rh factor, Cross matching, Coagulation and Anticoagulants. 	8	CO2
3	RESPIRATION	 Respiratory System Introduction, Structure, Function and Mechanics of Breathing. Respiration measures (Vital capacity, Total Volume, Reserve volume, Total lung capacity), Mechanism of respiration. Regulation of respiration, pulmonary function test, physiological changes in altitude & acclimatization, hypoxia. 	8	CO3
4	CARDIO VASCULAR SYSTEM	 Basic Physiology of Heart, Blood circulation, Arteries and veins, properties and structure of heart muscle. Cardiac Cycle and heart sounds. Conductive system of heart, Blood Pressure definition, Regulation factor affecting blood Pressure. 	8	CO4
5	DIGESTIVE SYSTEM	 Digestive system introduction, structure and function. Basic physiology of organs of digestive systems (Salivary glands, Gastric glands, Pancreas, Liver, Gallbladder). Composition and function of all digestive juices, Digestion and Absorption of carbohydrate, fat and proteins. 	8	CO5
	rence Books:			
		by Chaudhuri, 4th Edition; New Central Book Agency.		
		ngam; 4th ed, Jaypee Brothers.		
		iology, Ghai C L, Jaypee Brothers. a Joshi; Vora Medical Publication.		
		e. Vol: 1&2; 10th Edition; Medical & Allied Agency		
		blogy by Guyton & Hall, 11th Edition; Elsevier Publication		
7.	Principles of Anatomy & Ph	nysiology, Tortora, 8th Edition; Harper & Row Publication		
	Textbook of Physiology : G	anong		
	earning Source:			
	https://youtu.be/JuhDx9hQ/			
	https://youtu.be/Ta_vWUsrj			
	https://youtu.be/h1qSFZ9aw https://youtu.be/uYm41 alV			
	https://youtu.be/VWamhZ8			
	,,, _,			

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO	101	102	105	104	105	100	107	100	10)	1010	1011	1012	1501	1502	1505	1504	1505	1500
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	-	1
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	2	-	1
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1	-	1
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	-	1
CO5	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	-	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs													
Course Code	Course Title		Attributes										
AT102	HUMAN PHYSIOLOGY-I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.				
		1	\checkmark	√	√		√	\checkmark	3,4				



Effective from Session: 2022-23												
Course Code	AT103	T103Title of the CourseBASIC OF BIOCHEMISTRYLT										
Year	Ι	Semester	Ι	3	1	0	4					
Pre-Requisite	Nil	Co-requisite	Nil									
Course Objectives	The student v technology.	e student will be able to demonstrate knowledge in clinical as needed for the study and practice of medical laboratory										

	Course Outcomes: After the successful course completion, learners will develop following attributes:
CO1	Introduction, Molecular & Functional organization of cells, Amino acid, Lipids, Proteins
CO2	To study about classification definition and metabolism of carbohydrates
CO3	To learn about RNS & DNA, Advances in Genetic Engineering.
CO4	To learn about Definition, classification & function of fat & water soluble vitamins, classification of enzyme, definition and classification of
	hormones.
CO5	To learn about Introduction, role and requirement of nutrition.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO			
1	CELL & CHEMISTRYOF BIMOLECULES	 Introduction, Molecular & functional organization of a cell & its sub cellular components- Cell membrane, Cytosol, Endoplasmic reticulum, Golgi apparatus, Lysosomes, Peroxisomes, Mitochondria &Nucleus. Definition, Classification, properties & functions of amino acids. Brief about Definition, Classification & functions of lipids. Brief about structure of proteins, Amino acid & protein metabolism. 	8	CO1			
2	CARBOHYDRATE	Definition, Classification & Metabosis Glycolsis. Citric Acid cycle, Glunconeogensis, glycogenesis, Glycogenolysis, Pentose Phosphate Pathway. Blood Sugar level & its homeostasis, glucose tolerance & glycosuria.	8	CO2			
3	NUCLEIC ACID	1. Brief about structure of DNA & RNA, DNA Replication, & Transcription, Advances in Genetic Engineering.	8	CO3			
4	VITAMINS (FAT & WATER SOLUBLE) & ENZYMES & HORMONES In UITAMINS (FAT & Classification In UITAMINS (FAT & In UITAMINS (FAT & <						
5	NUTRITION & SPECIAL TOPICS	 Introduction of Nutrition, Nutrients of their role in human, Nutritional requirements, Balance diet, utritional disorder, SDA (special dynamic action). Respiratory quotient (RQ) & Basal Metabolism rate (BMR). Water electrolyte balance & acid base balance. 	8	CO5			
	nce Books:						
	indamentals of Biochemistry						
	sentials of Bio-chemistry by extbook of Biochemistry –Ch	U. Satyanarayan, 1st Edition, Books and Allied Publications.					
		emistry – Dr. M. N. Chettergee, 5th Edition, Jaypee Publication.					
		ry – Dr. A. C. Deb, 5th Edition, Central Publication.					
		Mekee, 2nd Edition, McGraw-Hill Publication.					
	arning Source:						
1. <u>http</u>	os://youtu.be/t5DvF5OVr1Y						
_	os://youtu.be/gggC9vctvBQ						
3. <u>http</u>	os://youtu.be/ufvZ8bYtyO8						

4. https://youtu.be/Q6R4o-oECxs

			Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
P	O-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
	CO1	1	3	2	2	-	-	-	1	2	1	-	2	2	1	-	1	-
	CO2	1	3	1	3	-	-	-	2	3	-	-	3	3	2	-	2	-
	CO3	1	3	1	2	-	-	-	1	2	2	-	2	3	1	-	1	-
	CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	-
	CO5	1	3	1	2	-	-	-	1	2	1	-	2	2	1	-	1	-

Attributes	&	SD
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			1111100	itts a BDGs								
Course Code	Course Title		Attributes									
			Entrepreneursh	Skill	Gender	Environment	Huma	Professional	No.			
ATT102	BASICS OF	Employability	in	Developme	Equalit	&	n	Ethics				
AT103	BIOCHEMISTRY		тр	nt	у	Sustainability	Value	Etilles				
		\checkmark	√	\checkmark	\checkmark		\checkmark	\checkmark	3,4			



Effective from Session	a: 2022-232017-18											
Course Code	AT104	Title of the Course	Т	Р	С							
Year	Ι	Semester	Ι	3	1	0	4					
Pre-Requisite	Nil	Nil Co-requisite Nil										
Course Objectives	The student will be technology.	he student will be able to demonstrate knowledge in clinical as needed for the study and practice of medical laboratory										

	Course Outcomes
CO1	To learn about Definition, Determinants and indicator of health, Various Health Programme.
CO2	To study about Definition and meaning of family, Family sickness & psychosomatic disease.
CO3	To learn about Rural & Urban community with health hazards.
CO4	To learn about human adaptation and social changes.
CO5	To learn about WHO, UNICEF, FAO, Indian red cross society, World bank.etc

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	BASIC CONCEPTS OF COMMUNITY HEALTHCARE	 Definition of Health, Determinants of Health, Health Indicators of India, Health Team Concept. National Health Policy, National Health Programmers (Briefly Objectives and Scope). Population of India and Family welfare programme in India. Health problem in India, Environment and health. 	8	CO1
2	FAMILY	 Family, meaning and definitions, Functions of types of family, changing family patterns. Influence of family on Individuals Health, family and nutrition. Effects of sickness in the family and psychosomatic disease. Concepts of joint family. 	8	CO2
3	COMMUNITY	 Rural community, Meaning and features. Health hazards to rural communities. Health hazards to tribal community. Urban community, Meaning and features, Health hazards of urbanities. 	8	CO3
4	CULTURE AND HEALTH DISORDERS	 Social Change: Meaning of social changes, Factors of social changes. Human adaptation and social changes, social changes and stress. Social changes and deviance, Social changes and health programme. Role of social planning in the Improvement of health and rehabilitation. 	8	CO4
5	OBJECTIVE AND ORGANIZATION OF IMPORTANT AGENCIES	 WHO, UNICEF, FAO, ILO. Indian Red cross Society. UNFPA, World Bank. Ford foundation, Rockefeller foundation. 	8	CO5
	nce Books:			
		Pandey, Textbook of Preventive Social Medicine. Medicine With Recent Advances		
		es In Community Medicine		
	rning Source:	•		
1. <u>http</u>	s://www.youtube.com/wat	<u>ch?v=kpWB5reLrmk</u>		

2. https://www.youtube.com/watch?v=c0TquroTHxo

3.

			Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
]	PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
	CO	FUI	FO2	FUS	r04	FUS	FU0	F07	FUo	F09	FOID	FOIT	FO12	1301	F302	1303	r304	F305
	CO1	1	3	2	2	-	-	-	1	2	-	-	2	3	1	2	3	-
	CO2	1	3	1	3	-	-	-	2	3	-	-	3	3	-	1	2	-
	CO3	1	3	1	2	-	-	-	1	2	-	-	2	2	2	1	2	2
	CO4	1	3	1	2	-	-	-	1	3	1	-	3	2	3	1	3	2
	CO5	1	3	1	2	-	-	-	1	2	2	-	2	3	1	2	2	2

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes &	k SDGs
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Course Code	Course Title		Attributes									
	COMMUNITY HEALTH	Employability	Entropropourship	Skill	Gender	Environment &	Human	Professional	No.			
AT104		Employability	Entrepreneurship	Development	Equality	Sustainability	Value	Ethics				
	CARE ISSUES	4	4	√	√		1	4	3,4			



Effective from Session	: 2022-23						
Course Code	CS103	Title of the Course	INTRODUCTION TO COMPUTERS	L	Т	Р	С
Year	Ι	Semester	Ι	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The main of	pjective of the course is to p	rovide fundamental knowledge of computers, windows, MS word, and	ıd Pov	ver po	oint.	

	Course Outcomes
CO1	After studying this course the students will know – The fundamentals of computers and computer systems.
CO2	After studying this course the students will know –Understanding the basic concepts of DOS commands.
CO3	After studying this course the students will know -A Basic understanding of the windows.
CO4	After studying this course the students will know –Understanding MS Word.
CO5	After studying this course the students will know -Knowledge, understanding, and basic concepts of presentation software.

Unit No.	Tit	le of th	ne Unit								nt of Uni						Contact Hrs.	Mapped CO
					What is	a com	outer? (Compoi	nents of	a comp	outer syst	em. Clas	sification	n of com	puters. Typ	pes		
1		OMPU DAMI	J TER ENTAI	S	of comp	puters.	A brief	histor	y of the	e evoluti	ion of co	omputers	and gen	eration of	of compute	ers.	6	CO1
	FUN	DAM		20	Comput	er hard	ware an	d softw	are. Inp	out/ Outp	out device	es.						
					Elemen	tary kn	owledg	e of I	DOS co	ommand	s DIR,	CLS, D	ATE, T	IME, M	D, CD, F	RD,		G 0 2
2		DO	S		RENAN	1E, DE	L, BAC	KUP, F	RESTO	RE, COI	PY, SCA	NDISK,	CHKDS	К.			6	CO2
					Differer	ice betw	veen w	indows	and D	OS. Bas	sic Featu	res - Da	te, Time,	Time Z	one, Displ	ay,		
					Screen Saver, Fonts, Mouse, and mouse pointers. Using accessories such as a calculator,													
3	V	VINDO	OWS		paintbrush, CD player, etc. Use of Windows Explorer for moving and copying files													CO3
					Introduc	ction to	MS Of	fice and	l its inte	grated n	ature.							
					Introduction to MS Office and its integrated nature. Starting Word, new documents, entering text, changing text, aligning, underlining, an													
					justifying text. Use of tabs. Tables - creation, adding rows and columns, splitting, and													
4		MS-WO	חפר		combini	-		6	CO4									
4	ľ	10-11	OKD			-		0	004									
			footers. Print preview, and print a document. Mail merge: creating main document and data source. Adding and removing fields from the data source.															
					The bas	ic conc	ept of	present	ation s	oftware.	Standar	d, Forma	tting, an	d drawin	g toolbars	in		
	DO				PowerP	oint and	their	use. Cr	eating a	and oper	ning a pr	esentatio	n. Creati	ng, delet	ing, openi	ng,		
5	-		POINT FATIO		and co	pying s	slides.	Closin	g and	saving	a prese	ntation.	Use of	slide so	orter, add	ing	6	CO5
		OFTW			header/f	ooter.	Use of	master	r slides	and co	olor box.	Use of	animati	on featu	es. Insert	ing		
					pictures	, resizir	g pictu	res. Ins	erting o	rganizat	ion chart	. Use of	auto cont	ent wizar	d.			
	nce Boo																	
					axena, V			g House										
					nce - M. chnology			w- New	age In	ternatior	nal.							
e-Lea	arning S	Source	:															
	t <u>ps://you</u> tps://you																	
	tps://you																	
	tps://you				/													
						Co	urse A	rticula	tion Ma	atrix: (N	Iapping	of COs	with POs	and PS	Os)			
PO-P CC		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
	-	1	2	2	2	-	-	-	1	2	1	-	2	-	2	2	1	-
CO		1	-	1	3	-	-	-	2	3	-	-	3	-	1	1	1	-
<u>CO</u>		1	3	1	2	-	-	-	1	2	2	-	2	-	1	1	1	-

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CO4	1 4	1	2	-	-	-	1	3	-	-	3	-	1	2	. 1	-
CO5	1 2	2 1	2	-	-	-	1	2	1	-	2	-	1	1	1	-
				1- Lo	w Correlation; 2- Moderate Correlation; 3- Substantial Correlation											
							Attril	outes &	: SDGs							
Course Code	C	ourse Title							Attributes							SDGs
	INTRO			Employability		Entrepreneurship			Skill	Gend	er Ei	nvironment	& Hun	nan	Professional	No.
CS103		INTRODUCTION TO		Employ	ability	Entrepr	eneursnip	Dev	velopment	Equal	ity S	ustainabilit	/ Val	ue	Ethics	
	COMPUTERS							1							3,4, 11	

3

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CO4

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Effective from Sessi	on: 2022-23						
Course Code	LN101	Title of the Course	BASICS OF PROFESSIONAL COMMUNICATION	L	Т	Р	С
Year	Ι	Semester	Ι	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The major	objective of the course	is to develop professional communication skills among the	stude	nts.		

	Course Outcomes
CO1	After studying this course the students will know - The meaning & importance of professional communication as well as effective professional
	communication.
CO2	After studying this course the students will know –Understanding the language through literature like essays and short stories.
CO3	After studying this course the students will know –Basic concepts and knowledge of vocabulary.
CO4	After studying this course the students will know –Understanding and practice of basic grammar.
CO5	After studying this course the students will know -Knowledge, understanding, and skills in report writing & business letter writing.

Unit No.	Title	e of th	ne Unit							Conter	nt of Uni	t					Contact Hrs.	Mapped CO
	PRO	FESS	IONA	Ĺ	a.	Profes	ssional	Comn	nunicat	ion: Me	eaning &	2 impor	tance					
1	COMN				b.	Essen	tials of	f Effect	tive Co	mmuni	cation						6	CO1
					c.	Barrie	ers to E	Effectiv	ve Com	munica	tion							
					a.	Essay	s:											
				~~	The Ef	fect of	the Sc	ientific	: Temp	er on M	lan" by	Bertran	d Russel	1				
			JAGE	~~	The Ai	ims of S	Scienc	e and H	Iumani	ties" by	y Moody	/ E. Pric	or					GO2
2			UGH TURE		b.	Short	Storie	s:		-	-						6	CO2
		LNA	TUKE	~~	The M	eeting	Pool"	by Rus	kin Bo	nd								
				•••	The Po	ortrait o	f a La	dy" by	Khush	want Si	ngh							
					a.	Euphe	emism.	, One-v	word Su	ubstitut	ion, Syn	onyms,	Antony	ms				
3		BAS		,	b.	-					s, Comr	•	•				6	CO3
	VOC	CABU	JLARY		c.		-			oression								
	1				a.	Articl												
4	BASIC	C GR	AMMA	R	b.	Conce		6	CO4									
					с.	Degre												
					a.	Repor	ting											
		BAS	IC			report		0										
5			SITION	J	b.	Busin	ness	6	CO5									
									-				iry / Co	• •				
Refere	nce Bool	ks:					., <u> </u>				,			<u> </u>				
1. Lata,	Pushp&	Kum																
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															l Humanit			
	rning Se						• mp • r	011 111001	. ej 20			11011						
1. <u>https:</u>	://www.y	outub	be.com/	watch?	v=jQx_	jZxdCb	<u>s</u>											
				com/to	pics/psy	chology	<u>y/lingui</u>	stictheo	<u>ory#:~:te</u>	ext=Ling	guistic%2	20Theory	<u>/%20was</u>	%20form	ed%20by	<u>,to%20</u>	<u>all%20ty</u>	pically%2
	<u>eloping%</u> ://linguis			underg	raduate	/what-is	lingui	stics/										
	://www.t							3003/										
·						C	urse A	rticula	tion Ms	ntrix: (A	Ianning	of COs	with POs	and PS	Os)			
PO-P	SO ,		DO2	DO2	DO4											DEO2	DCO	DEOS
CO)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO		-	-	-	-	-	2	-	2	-	-	-	2	-	-	-	-	-
CO.		-	-	-	-	-	2	-	- 1	-	- 1	-	2	-	-	-	-	-
		-	-	-	-	-	2	2	-	-	-	-	2	-	-	-	-	-
CO		-	-	-											-	1	1	

2- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation Attributes & SDGs

			Attilbu	lies & SDGS					
Course Code	Course Title			Att	ributes				SDGs
LN101	BASICS OF PROFESSIONAL	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.
	COMMUNICATION			4					3,4, 11



Effective from Session: 2	2022-23												
Course Code	AT105	Title of the Course	HUMAN ANATOMY-I LAB	L	Т	Р	С						
Year	Ι	Semester	Ι	0	0	2	1						
Pre-Requisite	Nil	Co-requisite	Nil										
Course Objectives	The student will l	dent will be able to demonstrate knowledge in human anatomy as needed for the study and practice of physiotherapy.											

	Course Outcomes
CO1	To identify anatomical aspect of the level of organization of the human body practically.
CO2	To identify anatomical and functional aspect of muscles, bones and joints of the various regions practically.
CO3	To identify and practically apply various terms related to human different system of the body.
CO4	To identify anatomical and functional aspect of neuromusculoskeletal structure of superior extremity.
CO5	To identify anatomical and functional aspect of neuromusculoskeletal structure of inferior extremity.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1		1. Identification and description of all Anatomical structures.		
2	GENERAL	2. The learning of Anatomy is by demonstration only through dummy dissected parts, slides, models, charts etc.		
3	ANATOMY OSTEOLOGY &	3. Demonstration of dummy dissected parts (upper extremity, lower extremity, thoracic & abdominal viscera, face and brain).		
4	ARTHROLOGY (Brief)	4. Demonstration of skeleton - articulated and disarticulated.		
5	SYSTEMIC ANATOMY	5. Demo of all bones showing its parts, radiographs of normal bones & joints. Demonstration of all muscles of the body.	20	CO1-5
6	SUPERIOR EXTREMITY	6. Demonstration of heart and vessels in the body.		
7	INFERIOR	7. Demonstration of parts of respiratory system, Normal radiographs of chest.		
8	EXTREMITY	8. Demonstration of all plexuses and nerves in the body.		
9		9. Demonstration of all part of brain.		
	nce Books:			
		n Anatomy-Volume 1, 2, 3 CBS Publishers & Distributors.		
	ell-Clinical Anatomy	of Anatomy with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.		
		ny-Regional and applied, Churchill Livingstone.		
		Practical Anatomy Vol. I, II, III, Churchill Livingstone.		
		ay's Anatomy-Churchill Livingstone.		
7 Ex	tremities by Quining V	Vasb		
		logy by Smout and McDowell		
	rning Source:			
	tps://youtu.be/X5RUF2			
	tps://youtu.be/06o_XN			
3. <u>htt</u>	tps://youtu.be/4Sab-2E	<u>4ZDI</u>		

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
C01	1	3	1	2	-	-	-	1	2	1	-	2	-	1	2	-	3
CO2	2	3	2	2	-	-	-	1	3	1	-	3	-	2	1	-	2
CO3	1	3	1	2	-	-	-	1	2	-	-	2	-	1	2	-	3
CO4	2	3	1	2	-	-	-	1	3	-	-	3	-	2	3	-	3
CO5	1	3	1	2	-	-	-	1	2	1	-	2	-	1	2	-	3

Course Code	Course Title		Attributes											
AT105	HUMAN ANATOMY-I LAB	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.					
		√	4	√	√		1	1	3,4					



Effective from Sessio	on: 2022-23						
Course Code	AT106	Title of the Course	HUMAN PHYSIOLOGY-I LAB	L	Т	Р	С
Year	Ι	Semester	Ι	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The student will be physiotherapy.	e able to demonstrate th	ne practical knowledge in human anatomy as needed for t	he stud	ly and	practic	e of

	Course Outcomes									
CO1	To understand about general physiology& its application.									
CO2	To understand the nerve, muscle physiology& its application.									
CO3	To understand about basics of hematology& its application.									
CO4	To understand about respiratory system & its application.									
CO5	To understand about cardiovascular system.									

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1		1. Measurement of Pulse rate, Heart rate, Blood Pressure.		
2		2. Auscultation for Heart Sounds and Normal Respiratory sounds.		
3	GENERAL AND CELL PHYSIOLOGY	3. Introduction of Microscope, Identification of blood cells by study of peripheral blood smears.		
4	BLOOD			
5	RESPIRATION	20	CO1 5	
6	CARDIO	 T.L.C Total Leukocytes Count. R.B.C. Count. 	20	CO1-5
7	VASCULAR	7. Estimation of Hemoglobin.		
8	SYSTEM			
9	DIGESTIVE	 8. Estimation of bleeding time & clotting time. 9. Blood Group, ABO and Rh factor. 		
10	SYSTEM	10. Hemoglobinometry, various methods of estimation of Hb, errors involved and standardization of instrument for adaptation for Hb estimation.		
Referen	ce Books:			
1. Text	book of Physiology: Guyton.			
	book of Physiology: Ganon			
3. Hum	an Physiology: A.K. Jain.			
4. Esse	ntials of Medical Physiology: K.	Semubulingam, Jaypee Publishers		
e-Leai	rning Source:			
	os://youtu.be/X5RUFXZZBH4			
2. <u>http</u>	os://youtu.be/06o_XNKwuOE			
3. http	os://youtu.be/4Sab-2E4ZDI			
4 1				

4. <u>https://youtu.be/uYm41_alVV0</u>

					Co	ourse A	rticulat	tion Ma	atrix: (N	lapping	of COs	with POs	and PSC	Os)			
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO	101	102	105	104	105	100	107	100	10)	1010	1011	1012	1501	1502	1505	1504	1505
CO1	1	3	1	2	-	-	-	1	2	-	-	2	-	1	-	1	-
CO2	1	3	1	3	-	-	-	1	3	-	-	3	-	2	-	2	-
CO3	1	3	1	2	-	-	-	1	2	-	-	2	-	1	-	1	-
CO4	1	3	1	2	-	-	-	1	3	-	-	3	-	1	-	1	-
CO5	1	3	1	2	-	-	-	1	2	-	-	2	-	1	-	1	-

			Attibu										
Course Code	Course Title		Attributes										
AT106	HUMAN PHYSIOLOGY-I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.				
	LAB	4	1	1	1		1	1	3,4				



Effective from Session:	2022-23						
Course Code	AT107	Title of the Course	BASICS OF BIOCHEMISTRY- I LAB	L	Т	Р	С
Year	Ι	Semester	Ι	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives							

	Course Outcomes
CO1	Introduction, Molecular & Functional organization of cells, Amino acid, Lipids, Proteins
CO2	To study about classification definition and metabolism of carbohydrates
CO3	To learn about RNS & DNA, Advances in Genetic Engineering.
CO4	To learn about Definition, classification & function of fat & water soluble vitamins, classification of enzyme, definition and classification of
	hormones.
CO5	To learn about Introduction, role and requirement of nutrition.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1		1. Basic Introduction, Safety in clinical biochemistry, Laboratory Sample collection, specimen, labelling and routine tests.		
2		2. Cleaning of laboratory Glassware, Composition of Glassware and General Glassware.		
3	CELL & CHEMISTRYOF BIMOLECULES CARBOHYDRATE	 Qualitative estimation of carbohydrates: Benedict's test Molishs Phenol Sulfuric Acid 		
4	NUCLEIC ACID VITAMINS (FAT & WATER SOLUBLE) & ENZYMES &	 Quantitative estimation of proteins: Lowry Method Bradford test 	20	CO1-5
5	HORMONES NUTRITION & SPECIAL TOPICS	 Quantitative Estimation of: Glucose concentration Urea concentration Cholesterol Concentration 	-	
6		 Chromatography TLC (Thin layer chromatography) & Paper chromatography 		
Refer	ence Books:			
-	fundamentals of Biochemist			
		by U. Satyanarayan, 1st Edition, Books and Allied Publications.		
-	extbook of Biochemistry –			
		Chemistry – Dr. M.N. Chettergee, 5th Edition, Jaypee Publication. stry – Dr. A. C. Deb, 5th Edition, Central Publication.		
	earning Source:			
	s://voutu.be/t5DvF5OVr1	Y		
	os://youtu.be/gggC9vctvB(
	os://youtu.be/ufvZ8bYtyO8			
4 http	s://voutu be/06B40-0ECv	-		

4. https://youtu.be/Q6R4o-oECxs

	Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO1	PO2	PO3	PO4	PO5	PO6	PO7	POS	POQ	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
101	102	105	104	105	100	10/	100	10)	1010	1011	1012	1501	1502	1505	1504	1505
1	3	2	2	-	-	-	1	2	1	-	2	-	2	2	1	-
1	3	1	3	-	-	-	2	3	-	-	3	-	1	1	1	-
1	3	1	2	-	-	-	1	2	2	-	2	-	1	1	1	-
1	3	1	2	-	-	-	1	3	-	-	3	-	1	2	1	-
1	3	1	2	-	-	-	1	2	1	-	2	-	1	1	1	-
	PO1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PO1 PO2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	PO1 PO2 PO3 1 3 2 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	PO1 PO2 PO3 PO4 1 3 2 2 1 3 1 3 1 3 1 2 1 3 1 2 1 3 1 2 1 3 1 2 1 3 1 2 1 3 1 2 1 3 1 2			PO1 PO2 PO3 PO4 PO5 PO6 PO7 1 3 2 2 - - - 1 3 1 3 - - - 1 3 1 2 - - - 1 3 1 2 - - - 1 3 1 2 - - - 1 3 1 2 - - -	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 1 3 2 2 - - 1 1 3 1 3 - - 2 1 3 1 2 - - 1 1 3 1 2 - - 1 1 3 1 2 - - 1 1 3 1 2 - - 1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 1 3 2 2 - - 1 2 1 3 1 3 - - 2 3 1 3 1 2 - - 1 2 1 3 1 2 - - 1 2 1 3 1 2 - - 1 3 1 3 1 2 - - 1 3 1 3 1 2 - - 1 3 1 3 1 2 - - 1 3	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 1 3 2 2 - - 1 2 1 1 3 1 3 - - - 1 2 1 1 3 1 2 - - - 1 2 1 1 3 1 2 - - - 1 2 2 1 3 1 2 - - - 1 2 2 1 3 1 2 - - - 1 3 - 1 3 1 2 - - - 1 3 -	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 1 3 2 2 - - 1 2 1 - 1 3 1 3 - - 2 3 - - 1 3 1 2 - - 1 2 2 - 1 3 1 2 - - 1 2 2 - 1 3 1 2 - - 1 2 2 - 1 3 1 2 - - 1 3 - - 1 3 1 2 - - 1 3 - -	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 1 3 2 2 - - 1 2 1 - 2 1 3 1 3 - - - 1 2 1 - 2 1 3 1 2 - - - 1 2 2 - 3 1 3 1 2 - - - 1 2 2 - 2 1 3 1 2 - - 1 3 - - 3 1 3 1 2 - - 1 3 - - 3	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 1 3 2 2 - - 1 2 1 - 2 - 1 3 1 3 - - - 1 2 1 - 2 - 1 3 1 2 - - 1 2 2 - 3 - 1 3 1 2 - - 1 2 2 - 2 - 1 3 1 2 - - 1 3 - 3 - 1 3 1 2 - - 1 3 - 3 - 1 3 1 2 - - 1 3 - 3 -	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02 1 3 2 2 - - 1 2 1 - 2 - 2 1 3 1 3 - - 1 2 3 - - 2 1 1 3 1 2 - - 2 3 - - 2 1 1 3 1 2 - - 1 2 2 - 2 1 1 3 1 2 - - 1 3 - 3 - 1 1 3 1 2 - - 1 3 - 3 - 1 1 3 1 2 - 1 3 1 2 1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02 PS03 1 3 2 2 - - 1 2 1 - 2 - 2 2 1 3 1 3 - - 1 2 1 - 2 - 2 2 1 3 1 2 - - 2 3 - - 3 1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02 PS03 PS04 PS04

			110011.50										
Course Code	Course Title		Attributes										
AT107	BASICS OF BIOCHEMISTRY- I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.				
	LAB	4	4	4	4		1	1	3,4				



INTEGRAL UNIVERSITY, LUCKNOW INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PARAMEDICAL SCIENCES

BACHELOR OF SCIENCE IN ANESTHESIOLOGY AND INTENSIVE CARE TECHNOLOGY (B.Sc.AICT)

SYLLABUS

YEAR/ SEMESTER: I/II



Integral University, Lucknow Department of Paramedical Sciences Study and Evaluation Scheme

	Program: B.Sc.AICT Semester-II												
S.	Course		Туре	Period	Per hr/w	eek/sem		Evalu	ation Schem	e			
N.	code	Course Title	of Paper	L	Т	Р	СТ	TA	Total	ESE	Sub. Total	Credit	Total Credits
	THEORIES												
1	1 AT108 Human Anatomy-II Core 2 1 0 40 20 60 40 100 2:1:0 3												
2	AT109	Human Physiology-II	Core	2	1	0	40	20	60	40	100	2:1:0	3
3	AT110	Medical Biochemistry-I	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	AT111	Basic Anesthesia Technology	Core	3	1	0	40	20	60	40	100	3:1:0	4
5	AT112	Medical Law & Ethics	Core	3	1	0	40	20	60	40	100	3:1:0	4
6	LN131	Effective Communication and Media Studies in English	Core	2	1	0	40	20	60	40	100	2:1:0	3
					PRAC	TICAL							
1	AT113	Human Anatomy-II - Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	AT114	Human Physiology-II - Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	AT115	Medical Biochemistry-I – Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
4	AT116	Basic Anesthesia Technology Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
		Total		16	06	08	400	200	600	400	1000	25	25

						At	ttributes				United Nation	
S. N.	Course code	Course Title	Type of Paper	Employability	Entrepreneurship	Skill Developmen t	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	Sustainable Development Goal (SDGs)	
	THEORIES											
1AT108Human Anatomy-IICore $$ $$ $$ $$ $$												
2	AT109	Human Physiology-II	Core		\checkmark						3,4	
3	AT110	Medical Biochemistry-I	Core		\checkmark						3,4	
4	AT111	Basic Anesthesia Technology	Core		\checkmark						3,4	
5	AT112	Medical Law & Ethics	Core								6,13,14,& 15	
6	LN131	Effective Communication and Media Studies in English	Core									
				PR	ACTICAL							
1	AT113	Human Anatomy-II - Lab	Core		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	3,4	
2	AT114	Human Physiology-II - Lab	Core		\checkmark				\checkmark		3,4	
3	AT115	Medical Biochemistry-I – Lab	Core		\checkmark						3,4	
4	AT116	Basic Anesthesia Technology Lab	Core	\checkmark	\checkmark						3,4	

L: Lecture T: Tutorials P: Practical CT: Class Test TA: Teacher Assessment ESE: End Semester Examination,

AE= Ability enhancement, DSE- Discipline Specific Elective, Sessional Total: Class Test + Teacher Assessment Subject Total: Sessional Total + End Semester Examination (ESE)



Effective from Session	: 2022-23													
Course Code	AT108	Title of the Course	HUMAN ANATOMY-II	L	Т	Р	С							
Year	Ι	Semester	П	2	1	0	3							
Pre-Requisite	Nil	Co-requisite	Nil											
Course Objectives	-	is syllabus is extension of the part-I. The syllabus justifiably divides the body systems into two semesters to ensure complete d comprehensive knowledge of all functionalities of the body.												
	and comprehensive	knowledge of all function	onalities of the body.											

	Course Outcomes										
CO1	To study about Respiratory System with details of Function and its importance in paramedical Sciences.										
CO2	To know about Digestive System with details of Function and its importance in paramedical Sciences.										
CO3	To know about the process of Urinary System with details of Function and its importance in paramedical Sciences.										
CO4	To learn about Endocrine gland with details of Function and its importance in paramedical Sciences.										
CO5											

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	RESPIRATORY SYSTEM	 Orientation of Thoracic cage- boundaries, inlet, outlet & wall. Intercostal muscles - origin, insertion, nerve supply. Diaphragm - origin, insertion, nerve supply. Nose, pharynx, Larynx extent, walls. enumerate associated cartilages & muscles. Trachea- extent & brief structure, concept of tracheobronchial tree. Lungs- Surfaces, borders, lobes, fissures. Joints of Thorax- enumerate and its type. 	6	CO1
2	DIGESTIVE SYSTEM	 Oral cavities (boundaries), tongue - parts, enumerate muscles & papillae, salivary glands- brief enumerate & discuss in brief its opening). Pharynx (extent, parts & boundaries) and Oesophagus (parts, extent, constrictions, sphincters). Stomach - location, parts, surfaces, curvatures, nerve supply. Small Intestine parts, difference between duodenum, jejunum & ileum, nerve supply. Large intestine - parts & their features in brief. Liver- location, surfaces, border, lobes, Gall bladder-location, parts & function, Pancreas -location, parts, surfaces, borders & its ducts. Blood vessel and layers of GIT. 	6	CO2
3	URINARY SYSTEM	 Introduction and Parts of Urinary system. Kidney- Structure (surfaces, poles, borders, hilum) & function. Structure of nephron. Ureter (length, parts, constrictions), Urinary bladder (location, capacity, surfaces, borders, parts, openings) and Urethra (parts). 	6	CO3
4	ENDOCRINE GLAND	 Introduction and function of Endocrine Gland. Pituitary gland- location, parts, enumerates types of cells & hormones secreted. Thyroid gland- location, parts, features & blood supply. Parathyroid gland - location, enumerate types of cells & hormone secreted. Adrenal gland locations, shape, enumerate its components & hormones. 	6	CO4
5	LYMPHATIC SYSTEM	 Introduction to Lymphatic System. Lymph nodes- structure and functions. Spleen - location, surfaces, borders, poles, hilum. Thymus - location, structure & functions. Tonsil – types according to location, palatine tonsil in brief. 	6	CO5
	ce Books:			
		atomy-Volume 1, 2, 3 CBS Publishers & Distributors.		
2 Inde 3 Sne	erbir Singh, Textbook of A Il-Clinical Anatomy by re	Anatomy with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.		
3 She). Chaurasia's Human An	atomy-Volume 1, 2, 3 CBS Publishers & Distributors.		
		Anatomy with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.		
	ll-Clinical Anatomy by re			
e-Lear	rning Source:			
	os://youtu.be/X5RUFXZZ	BH4		
	://youtu.be/060_XNKwu(
3. https:	://youtu.be/4Sab-2E4ZDI			

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
СО	101	102	105	104	105	100	107	100	10)	1010	1011	1012	1501	1502	1505	1504	1505
CO1	1	3	1	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO2	1	3	2	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO3	1	3	1	2	-	-	-	1	1	1	-	3	2	1	1	1	1
CO4	2	3	1	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO5	1	3	1	2	-	-	-	1	1	1	-	3	2	1	1	1	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes	& SDGs	

Course Coo	e Course Title			Att	ributes				SDGs
		Employability	Entroneonourshin	Skill	Gender	Environment &	Human	Professional	No.
AT108	HUMAN ANATOMY-II	Employability	Entrepreneurship	Development	Equality	Sustainability	Value	Ethics	
		1	√	√	√		1	1	3,4



Effective	e from Session	n: 2022-23					Effective from Session: 2022-23											
Course	Code	AT109	Title of the Course	HUMAN PHYSIOLOGY-II	L	Т	Р	С										
Year		Ι	Semester	II	2	1	0	3										
Pre-Req	luisite	Nil	Co-requisite	Nil														
Course	ourse Objectives This subject imparts the knowledge of the structure and function of included organs and organ systems in normal human body.																	
				Course Outcomes														
CO1	To understand	l about gastro intestinal tr	act& its application in prac	ctice of Paramedical Sciences.														
CO2	To understand	l about Nervous system a	nd special senses& its appl	lication in practice of Paramedical Sciences.														
CO3	To understand	about Endocrine system	& its application in practic	ce of Paramedical Sciences.														
CO4	To understand about Reproductive system & its application in practice of Paramedical Sciences.																	
CO5	To understand	about excretory function	& its application in practic	ce of Paramedical Sciences.														

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	DIGESTIVE SYSTEM	1. Digestive system introduction, structure of GI wall and functions. 2. Basic physiology of organs of digestive system (Salivary glands, Gastric glands, Panci Liver, Gall bladder). 3. Physiological functions of Liver. 4. Digestion and Absorption of carbohydrate, fat and proteins. 1. Nervous System: general organization of CNS, function of important structure and cord, neuron, nerve impulse, type of nerves according to function, Autonomic net system- organization & function. 2. Special senses- general organization of Glucagon, Prolactin, Growth Hormones, insulin, oxytocin, Adrenal PTH, Thyroxin, calcitonin, Vitamin D. 1. Introduction of Reproductive Systems in human. 2. Spermatogenesis and Oogenesis. 3. Physiological functions of Male and female Reproductive Hormones. 4. Menstrual Cycle. 5. Placental Hormone (Physiological Function). Functions anatomy of Kidneys, Urine formation, (Glomerular filtration and tubular Reabsorption), Electrolytes: their balances and imbalances Introduction of acidosis and alkalosis. II, (2011) Textbook of Medical Physiology, 12 th Edition, Saunder/Elsevier. y, (2011), Concise Medical Physiology, 6 th edition, NCBA. z, (2012), Essentials of Medical Physiology, 6 th edition, Jaypee Publications ra and Bryan H. Derrickson, (Principles of Anatomy and Physiology, 14 th edition, Wiley publications).		
2	CENTRAL NERVOUS SYSTEM	TIVE 2. Basic physiology of organs of digestive system (Salivary glands, Gastric glands, Pancr Liver, Gall bladder). 3. Physiological functions of Liver. 4. Digestion and Absorption of carbohydrate, fat and proteins. RAL 8. Nervous System: general organization of CNS, function of important structure and scord, neuron, nerve impulse, type of nerves according to function, Autonomic ne system- organization & function. 2. Special senses- general organization & functions. 1. Introduction of Endocrine system. 2. Physiological Functions of Glucagon, Prolactin, Growth Hormones, insulin, oxytocin, Adrenal PTH, Thyroxin, calcitonin, Vitamin D. 1. Introduction of Reproductive Systems in human. 2. Sperinatogenesis and Oogenesis. 3. Physiological functions of Male and female Reproductive Hormones. 4. Menstrual Cycle. 5. Placental Hormone (Physiological Function). Functions anatomy of Kidneys, Urine formation, (Glomerular filtration and tubular Reabsorption), Electrolytes: their balances and imbalances Introduction of acidosis and alkalosis. (2011) Textbook of Medical Physiology, 6th edition, NCBA. (2012), Essentials of Medical Physiology, 6th edition, Jaypee Publications a and Bryan H. Derrickson, (Prin		CO2
3	ENDOCRINE GLAND	2. Physiological Functions of Glucagon, Prolactin, Growth Hormones, insulin, oxytocin, ADH,	6	CO3
4	REPRODUCTIVE SYSTEM	 3. Physiological functions of Liver. 4. Digestion and Absorption of carbohydrate, fat and proteins. a. Digestion and Absorption of carbohydrate, fat and proteins. a. Digestion and Absorption of carbohydrate, fat and proteins. a. Nervous System: general organization of CNS, function of important structure and spir cord, neuron, nerve impulse, type of nerves according to function, Autonomic nervo system- organization & function. a. Special senses- general organization & functions. a. Introduction of Endocrine system. b. Introduction of Reproductive Systems in human. b. Spermatogenesis and Oogenesis. c. Spermatogenesis and Oogenesis. c. Physiological functions of Male and female Reproductive Hormones. d. Menstrual Cycle. c. Placental Hormone (Physiological Function). Functions anatomy of Kidneys, Urine formation, (Glomerular filtration and tubular Reabsorption), Electrolytes: their balances and imbalances Introduction of acidosis and alkalosis. (2011) Textbook of Medical Physiology, 12 th Edition, Saunder/Elsevier. (2012), Essentials of Medical Physiology, 6 th edition, Jappee Publications	6	CO4
5	EXCRETORY SYSTEM	Reabsorption), Electrolytes: their balances and imbalances Introduction of acidosis and	6	CO5
	ence Books:			
2. Su	jit Chaudhury, (2011), Co	ncise Medical Physiology, 6th edition, NCBA.		
		H. Derrickson, (Principles of Anatomy and Physiology, 14th edition, Wiley publications).		
	arning Source:			
	ttps://youtu.be/JuhDx9hQAx8			
	ttps://youtu.be/Ta_vWUsrjho ttps://youtu.be/h1qSFZ9aw94			
<u>э.</u>	ups.//youtu.be/miqsrZ9aw94			

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO	FUI	F02	FUS	F04	FUS	FU0	FO/	100	F09	FOID	FOIT	FO12	1301	F302	1303	F304	1303
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	1
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1	1
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1	1
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	1
CO5	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	1

Course Code	Course Title			Att	ributes				SDGs
AT109	HUMAN PHYSIOLOGY-	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.
	11	4	4	٦ ٦	1		√	1	3,4



Effective from Sessio	Effective from Session: 2022-23													
Course Code	AT110	L	Т	Р	С									
Year	Ι	3	1	0	4									
Pre-Requisite	Nil Co-requisite Nil													
Course Objectives	The following syllal	ous has been develope	d to impart knowledge of Equipments, Apparatus, Glass	ware,	Reager	its used	1 in							
Course Objectives	Clinical Biochemistry Laboratory along with laboratory hazards and safety measures.													

	Course Outcomes								
CO1	To learn about management and responsibilities in biochemistry lab.								
CO2	know about various glassware & equipments used in biochemistry lab.								
CO3	o know about preparation & properties of solutions.								
CO4	To learn about sample collection, handling & preservation.								
CO5	To learn about urine examination.								

Unit No.	Title o	f the Un	it						Conter	t of Uni	t					ntact rs.	Mapped CO
1	cli	luction o inical temistry	of 2 3 4	Techn Labo Labo Units measu	ologist. ratory e ratory I of me rement	ethics, N Hazards easurem of Bio	/ledical , Safety lent: S metabol	Legal o measu I units lite, enz	concern res and , Refe cymes, p	s. Preventi rence ra protein, d	on, First inge, Co	aid in La	boratory factors	edical La Accidents , units fo		8	CO1
2	appara	ument & atus use emistry	$\frac{2}{2}$ in $\frac{2}{3}$	Calibr Cleani Chemi Princij Magne	Glassware's and plastic ware's used in laboratory. Calibration of Pipettes and Volumetric apparatus. Cleaning, Care, Maintenance and Storage of Laboratory Glasswares. Chemicals, Purity of Chemicals and Hygroscopic substances. Principle, Working, Care, Maintenance and Calibration of Weighing Balance, Hot Plate. Magnetic Stirrer, Centrifuge, Incubator, Hot Air Oven, Colorimeter, Spectrophotometer, pH meter, Distillation Plant and Deionizers. Preparation of Solutions and Reagents: Normal solutions, Molar solutions, Percent											8	CO2
3	solut	ration o ion and agent.	2	solutio Inter c	ons, But onversi	ffer solution of co	tions, I	Dilution ation –	s, w/v, Normal	v/v, Stan	dard solu Molal an	itions, Ac	ions, Pero queous so tage solut	lutions.		8	CO3
4	collec	cimen tion and cessing.	a 2	 Specimen collection and Processing of Blood, Urine and CSF, Separation of Serum and Plasma for Biochemical Analysis. Deproteinization of sample, Handling of specimens for Testing, Transport of specimen. Preservation of specimen, Factors affecting the Clinical results, Effects of Storage on sample. 											8	CO4	
5	Urine	Analysi	is 2	. Bence . Qualit pigme	Jones I ative te nts, Uro	Proteinu st of Ur obilinog	irea and ine for l gen, Occ	l its clir Reducir cult blo	ical sig 1g suga od, Uric	acid, Ur	e. ns, Ketor rea and C	reatinine	, Bile salt nificance			8	CO5
Referen	ce Books:																
	p, Fody an																
	umnik Sood & Sahni, I						1ethods	and I	nterpre	tations.							
	l B. Godka						dical La	aborato	rv Tech	nology.							
	rning Sou			,					-	0,							
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	s://youtu.be																
4. <u>nups</u>	s://youtu.be	V0K40	-OECXS		C			···· »	4	.	.003						
PO-PS	0									viapping			s and PS				
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1
		-	1							1			-		•	-	

1 1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation Attributes & SDGs

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Course Code	Course Title		Attributes									
AT110	MEDICAL	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.			
	BIOCHEMISTRY- I	4	1	4	1		√	1	3,4			



Effective from Sessio	n: 2022-23	2022-23												
Course Code	AT111	Title of the Course	L	Т	Р	С								
Year	Ι	Semester	Π	0	4									
Pre-Requisite	Nil	Co-requisite	Nil											
Course Objectives	The aim and objectiv	aim and objective of this course is to know about introduction of basic science of Anesthesia & Anesthetic Equipments.												

Course Outcomes: At the end of the course, the student will be able to

	oblise outcomes. The the ond of the course, the student will be up to
CO1	Know About Basic Science of Anesthesia
CO2	Understanding the Various Equipments involved in Anaesthesia
CO3	Examine the Anaesthesia Basics & Equipment Functioning.
CO4	Know about various Drugs & Techniques used in Anaesthesia
CO5	Understand the working & use of Boyle's Apparatus & Other Equipments in Daily Anaesthetic Use.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Basic Science of Anesthesia	Pre anesthetic Checkup (PAC) -History, pre-operative, Intraoperative & post-operative care Anesthesia techniques Historical background, Types of Anesthesia, Choice of Anesthesia General Anesthesia- Indication of general anesthesia Endotracheal intubations General Anesthesia Techniques Local Anesthesia Techniques Blood Transfusion Monitoring in the Operation Theatre Positioning of Patient	8	CO1
2	Equipments involved in Anesthesia	Anaesthesia Instrument: Anaesthesia Instrument planning for various surgical procedure and Auxiliary instrumentation, Boyle's apparatus, facemask, types of circuits, T-piece, Circle system Supply of compressed gases, liquid oxygen, storage & supply system, reducing pressure valves, Vaporizers. Intubation equipment.	8	CO2
3	Artificial airways(oral and Nasal endo- tracheal tubes, Tracheostomy tubes)	Artificial airways(oral and Nasal endo-tracheal tubes, Tracheostomy tubes): Parts of airway and features, Types, sizes and methods of insertion, Indications for use Care of long-term airways and complications.	8	CO3
4	Monitoring Devices	Monitoring devices (ECG pads, oximeters, etc.) Laboranalgesics-Technical terms used Methods of Pain Control-Patient Controlled Analgesia, Multimodal Technique, Epidural Analgesia. Manual Resuscitators: Types of resuscitator bags Methods of increasing oxygen delivery capabilities while using oxygen with resuscitator bags. Recent advances in CPR,BLS	8	CO4
5	Suction Apparatus	Suction apparatus : foot operated, electrically operated AMBU bag & laryngoscope, Endotrachealtubes,Catheters,Facemasks–Types,sizesanditsusage,Venturimasks Anaesthesia Ventilators & Monitoring. Spinal Anesthesia- techniques & agents Epidural Anesthesia-techniques & agents	8	CO5
	nce Books:			
		Text book of Anaesthesia ELSEVIER		
	yYadav Short Text book of A			
	shul Jain Essentials of Anestl in Kumar Paul Drugs &	hesia & Critical Care JAYPEE Equipments in Anaesthetic Practice Elsevier		
	rning Source:	Equipments in Anaesthetic Practice Elsevier		
	source: ps://www.youtube.com/watch	2u-hod INamLIK III		
	os://www.youtube.com/watch			
2. <u>IIII</u>	ps.//www.youtube.com/watch	1: y=-JIRQJQ <u>JZU</u>		

3. https://www.youtube.com/watch?v=o4LlkJsMgpg

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	-	-	1	-	3	3	2	2	-	2	2	-	-	-	-	1
CO2	2	-	-	2	-	3	2	2	1	-	2	3	-	-	-	-	2
CO3	2	-	-	1	-	3	3	1	2	-	1	2	-	-	-	-	1
CO4	2	-	-	1	-	3	3	2	1	-	2	3	-	-	-	-	1
CO5	2	-	-	2	-	3	2	2	1	-	2	2	-	-	-	-	1

	Course Code	Course Title		Attributes									
ſ	AT111	BASIC ANESTHESIA	Employability	Entropropourship	Skill	Gender	Environment &	Human	Professional	No.			
			Employability	Entrepreneurship	Development	Equality	Sustainability	Value	Ethics				
		TECHNOLOGY	4	4	√	1		1	1	3,4			



Effective from Sessi	on: 2015-16											
Course Code	AT112	Title of the Course	MEDICAL LAW & ETHICS	L	Т	Р	С					
Year	Ι	Semester	Ι	3	1	0	4					
Pre-Requisite	Nil	Co-requisite	Nil									
Course Objectives	Advances in rights and c	medical sciences, growin hanging moral principles of	firmly believed to be an integral part of medical practice in g sophistication of the modern society's legal framework, increas of the community at large, now result in frequent occurrences of a arising from daily practice.	sing aw	varenes	s of hur	man					

	Course Outcomes									
CO1	To learn about basic principles of medical ethics.									
CO2	To learn about right of patients Care.									
CO3	To learn about medico legal aspects.									
CO4	To learn about development of standardized protocol.									
CO5	To learn about emergency care and life support skill.									

Unit No.	Tit	tle of tl	he Unit							Conter	nt of Uni	t				0	Contact Hrs.	Mapped CO
1	М	edical	Ethics	2 3	. Malp	duction princip ractice	to Code oles of r and neg	e of con nedical ligence	duct. ethics, , Ratior	Confide		drug the	rapy.				8	CO1
2	Rig	ght of I Car	Patients ·e	2	. Right		ents Ca	re of th	e termir	ally. ethics an	d law.						8	CO2
3		fedico cts and Reco	l Medio	cal $\begin{bmatrix} 2\\ 3 \end{bmatrix}$. Reco . Conf	 Medico legal aspects of medical records, Medico legal case and type. Records and document related to MLC ownership of medical records. Confidentiality Privilege communication, Release of medical information. Unauthorized disclosure, retention of medical records, other various aspects. 											8	CO3
4	Star	ndard]	Protoco		 Professional Indemnity insurance policy. Development of standardized protocol to avoid near miss or sentinel events obtaining an informed consent. 										1	8	CO4	
5		rgency are Su	and Li pport.	ife $\begin{bmatrix} 2\\ 3 \end{bmatrix}$	 Basics of emergency care and life support skill. Vital signs and primary assessment, Basic emergency care, first aid and triage. Ventilations including use of bag-valve-masks (BVMs), Choking, rescue breathing methods. One and Two rescuer CPR, Using an AED (Automated external defibrillator), Managing an emergency including moving a patient. 											8	CO5	
	nce Boo																	
	nnedy I, kson E.									Dread								
	cent Tre								versity	F1688.								
									graphic	Position	ing and	Technia	ies-E-BC	OK. Else	evier Heal	th Sciend	ces: 2017	7 Feb 10
	arning S				0							<u> </u>					,	
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3. <u>ht</u>	tps://wv	ww.slid	eshare.	net/1ma	ngalal/t	asic-lif	e-suppo	<u>rt-3334</u>	4827									
	~~~			1		Co	urse A	rticula	tion Ma	atrix: (N	Iapping	of COs	with POs	and PS	Os)			
PO-P CC		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO	-	-	-	-	-	-	2	-	2	-	-	-	2	-	-	-	-	-
CO	)2	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-
CO	-	-	-	-	-	-	2	-	1	-	1	-	2	-	-	-	-	-
CO	)4	-	-	-												-	-	-

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation Attributes & SDGs

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Course Code	Course Title		Attributes									
AT112	MEDICAL LAW &	Employability	nployability Entrepreneurship Skill Gender Environment & Development Equality Sustainability	Environment & Sustainability	Human Value	Professional Ethics	No.					
11112	ETHICS			√ Veropinein	Equality	Bustantability	Vulue	Etilles	3,4, 6			



CO5

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Effecti	ve from Sessi	on:2023-2024						
Course	e Code	LN131	Title of the Course	Effective Communication and Media Studies in English	L	Т	Р	С
Year		Ι	Semester	П	2	1	0	3
Pre-Re	equisite	10+2	Co-requisite	UG				
Course Object		<ul><li>Developing</li><li>Knowledge</li><li>Basic concerning</li></ul>	of Professional and Me ept of Phonetics, Voice	on and learning basic skills of conversation. edia Skill Development, Career enhancement tips and goal oriented l and Accent. ng and descriptive writing.	earninį	5.		
				Course Outcomes				
CO1	Students wil	l be able to dev	elop Formal and Inform	nal Spoken skills, learn career development skills and learn to have c	lear id	ea of go	oal setti	ng.
CO2	Students wil	l learn about th	e importance and usage	of mass media and ways to develop their media skills.				
CO3	Academic W	riting will help	o students to format and	structure the content they create which will help them to be professi	onal w	riters a	nd	
	bloggers.							
CO4				tter conversation skills in formal and informal setup. They will learn onverse in competitive environment.	the pr	oper us	age and	
CO5	The unit ena	bles students to	put all the theoretical l	knowledge to practice, assuring complete learning and implementation	on.			

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Communication in Practice	Do's and Don'ts of Formal and Informal Communication Tips on Career Management- Setting Clear Goals, Skill Development, Network Building and Professional Relationship Etiquette, Knowing Aptitude and Values. Classroom Practice- JAM (Just A Minute) Extempore, Rebuttal, Forum, Role Play.	7hrs	CO1
2	Mass Communication and Journalism	Introduction to Mass Communication. Types of Mass Communication/ Mass Media Impact of Globalization on Mass Media Socio Political Impact of Digital Media Advertisement- Ethical and Unethical Advertisement, Jingles, Tag Lines, Punch Lines, Media Writing	7hrs	CO2
3	Fundamentals of Academic Writing	The four main types of academic writing- Descriptive, Analytical, Persuasive and Critical. Writing Book Review, Introduction to Descriptive Writing Techniques and Features of Descriptive Writing - Character, Place and Travel Description, Event, Movie and Food description.	7hrs	CO3
4	Conversation Skills	<ul> <li>Phonetics- Learning Speech Mechanism (Voice and Accent)</li> <li>Introduction- Self and Other-Guest Speaker / Colleague</li> <li>Polite Conversational Etiquette <ul> <li>Varieties of English Language; their difference in terms of Pronunciation, Vocabulary and Spelling:</li> <li>British</li> <li>-American</li> </ul> </li> </ul>	7hrs	CO4
5	Academic Project	<ul> <li>Creating News Bytes</li> <li>Writing News Report</li> <li>Creating Jingles and Tag Lines for Famous Brands.</li> <li>Writing Editorial on a Topical Subject</li> <li>Writing Film Reviews</li> <li>Travelogue</li> </ul>	4hrs	CO5

#### **Reference Books:**

1. Kumar, SanjayandPushpLata.CommunicationSkills.OxfordUniversityPress, Oxford 2011.

2. Raman, Meenakshi, and Sangeeta Sharma. Technical Communication: Principals and Practice. Second Edition, OxfordUniversityPress, 2012.

3. Raina, Roshan Lal, Iftikhar Alam, and Faizia Siddiqui. Professional Communication. Himalaya PublicationHouse2012.

4. Agarwal, Malti.ProfessionalCommunication.Krishna'sEducationalPublishers.2016.

5. Carnegie, Dale. How to Win Friends and Influence People in the Digital Age. Simonand Schuster. 2012.

6. Covey, Stephen R. The Seven Habits of Highly SuccessfulPeople.FreePress.1989.

7. Verma, KC.TheArtofCommunication.Kalpaz.2013.

8. Alred, G. J., Brusaw, C. T., & Oliu, W. E. (2011). Handbook of Technical Writing, Tenth Edition (10th ed.). St. Martin's Press

9. Sherman, Barbara.(2014). Skimming and Scanning Techniques. Liberty University Press.

10. Barker, Alan. (2011). Improve Your Communication Skills. Kogan Page Pub. [later edited version to be added if any]

11Seely, John. (1998). The Oxford Guide to Effective Writing and Speaking. Oxford UP.

e-Learning Source:

1. http://www.uptunotes.com/notes-professional-communication-unit-i-nas-104...

2. https://www.docsity.com/en/subjects/professional-communication/

3. <u>https://lecturenotes.in/download/note/22690-note-for-communication-skills-for-profession...</u>

4. <u>https://www.files.ethz.ch/isn/125396/1154_trystnehru.pdf</u>

5. https://kr.usembassy.gov/martin-luther-king-jr-dream-speech-1963/#:~:text=I%20have%20a%20dream%20that,skin%20but%20by%20their%20.

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO4	PSO5	PSO6	PSO7
C01	3	1	1	2	2	1	2	3	3	1	2	2	3	2	2	3	2	3
CO2	3	3	2	2	2	2	2	1	2	2	2	3	2	2	3	3	3	3
CO3	3	2	2	3	2	3	3	2	2	3	2	3	2	3	3	3	3	3
CO4	2	3	1	2	3	1	2	2	3	3	3	3	3	3	2	2	2	2
CO5	3	2	2	1	2	3	3	3	2	3	2	2	3	2	2	3	3	2

			Attilbu	ies a SDGs					
Course Code	Course Title			Att	ributes				SDGs
LN131	Effective Communication and Media Studies in	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.
	English	4	4	Ŵ				4	3,4, 6



Effective from Session	: 2022-23						
Course Code	AT113	Title of the Course	HUMAN ANATOMY- II LAB	L	Т	Р	С
Year	Ι	Semester	П	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The curriculum aim	s to prepare students in	basic understanding of Human anatomy of practical aspects	•			

	Course Outcomes
CO1	Students are able to learn about human thorax.
CO2	Students are able to learn about human Abdomen.
CO3	Students are able to learn about human Urinary system.
CO4	Student's are able to learn about human Head.
CO5	Student's are able to learn about human Practical aspect of Visceral Anatomy

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1		<ol> <li>Sternum</li> <li>Ribs</li> <li>Vertebrae</li> <li>Demonstration of Lungs</li> <li>Demonstration of Chest X-ray</li> </ol>		
2	RESPIRATORY SYSTEM	<ol> <li>Lumbar vertebrae</li> <li>Stomach</li> <li>Liver, Gall bladder and Pancreas</li> <li>Intestine</li> </ol>		
3	DIGESTIVE SYSTEM URINARY SYSTEM ENDOCRINE GLAND	<ol> <li>Sacrum</li> <li>Articulated Pelvis</li> <li>Kidney &amp; Urinary bladder</li> </ol>	20	CO1-CO5
4	- LYMPHATIC SYSTEM	<ol> <li>Pituitary gland- location, parts.</li> <li>Thyroid gland- location, parts, features &amp; blood supply.</li> <li>Parathyroid gland - location</li> <li>Adrenal gland locations, shape.</li> </ol>		
5		<ol> <li>Lymph nodes- structure</li> <li>Spleen - location, surfaces, borders, poles, hilum.</li> <li>Thymus - location, structure.</li> <li>Tonsil – types according to location.</li> </ol>		
Referen	ice Books:			
		hysiology in health & illness,11th edition, Elsevier Publications		
	aurasia B D, (2016), Human Anato			
		ickson, (Principles of Anatomy and Physiology,14th edition, Wiley publications.		
	ing Source:			
	os://youtu.be/X5RUFXZZBH4			
2. <u>https</u>	://youtu.be/060_XNKwuOE			
3 https	·//voutu be//Sab 2E/7DI			

3. https://youtu.be/4Sab-2E4ZDI

					Co	ourse A	Course Articulation Matrix: (Mapping of COs with POs and PSOs)														
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5				
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	1				
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1	1				
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1	1				
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	1				
CO5	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	1				

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation Attributes & SDGs

			Attribu	tes & SDGs								
Course Code	Course Title		Attributes									
AT113	HUMAN ANATOMY- II	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.			
_	LAB	4	4	Ŵ	Î √ Î	· · · · ·	1	4	3,4			



### Integral University, Lucknow

Course Code	AT114	Title of the Course	HUMAN PHYSIOLOGY- II LAB	L	Т	Р	С
Year	Ι	Semester	П	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
<b>Course Objectives</b>	The curriculu	m aims to prepare student	s in basic understanding of Human Physiology of practical asp	ects.			

	Course Outcomes: After the successful course completion, learners will develop following attributes:
CO1	To learn about patient history, pulse rate, blood pressure.
CO2	To learn about respiratory sound
CO3	To learn about IUD
<b>CO4</b>	To learn about body temperature.
CO5	To learn about nutritional balance

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	DIGESTIVE SYSTEM	1. History taking and general examination.		
2	CENTRAL NERVOUS	2. Examination of Pulse.		
3	SYSTEM	3. Measurement of Blood Pressure.		CO1
4	ENDOCRINE GLAND	4. Auscultation for heart sounds and normal respiratory sounds.	20	CO1- CO5
5	REPRODUCTIVE	5. To study about intrauterine contraceptive devices.		COS
6	SYSTEM	6. To measure temperature.		
7	EXCRETORY SYSTEM	7. Calculation & evaluation of daily energy & nutrient intake.		
Referen	ce Books:			
1. Guy	ton and Hall, (2011) Textbook	of Medical Physiology,12th Edition, Saunder/Elsevier.		
2. Sujit	Chaudhury, (2011), Concise	Medical Physiology, 6th edition, NCBA.		
U		of Medical Physiology, 6thedition, Jaypee Publications.		
		rickson, (Principles of Anatomy and Physiology, 14 th edition, Wiley publications.		
		Medical Physiology, 6th edition, NCBA.		
	rning Source:			
1. <u>http</u>	s://youtu.be/JuhDx9hQAx8			
2. <u>http</u>	s://youtu.be/Ta_vWUsrjho			

3. https://youtu.be/h1qSFZ9aw94

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)															
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1
CO4	1	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1
CO5	2	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes	& SDGs	

Course Code	Course Title		Attributes									
AT114	HUMAN	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.			
	PHYSIOLOGY- II LAB	1	1	4	1		1	1	3,4			



### Integral University, Lucknow

Effective from Sessio	n: 2022-23						
Course Code	AT115	Title of the Course	MEDICAL BIOCHEMISTRY - I LAB	L	Т	Р	С

Year	Ι	Semester	П	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
<b>Course Objectives</b>	The curriculu	m aims to prepare students	s in basic understanding of medical biochemistry of practical a	spects.			

	Course Outcomes: After the successful course completion, learners will develop following attributes:
CO1	Students are able to learn about lab safety rules, lab apparatus & colorimeter.
CO2	Students are able to learn about spectrophotometer, pH meter & incubator.
<b>CO3</b>	Students are able to learn about centrifuge machine, weight machine & blood collection
<b>CO4</b>	Students are able to learn about sample separation, solution preparation of different cons.
CO5	Students are able to learn about normal and abnormal constituents of urine.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1		1. To Study General Laboratory Safety Rules.		
2	Introduction of	2. To Demonstrate Glass wares, Apparatus and Plastic wares used in Laboratory.		
3	clinical	3. Demonstration of Working of Colorimeter.		
4	biochemistry	4. Demonstration of Working of Spectrophotometer.		
5	Instrument &	5. Demonstration of Working of pH meter.		
6	apparatus use in	6. Demonstration of Working of Incubator.		
7	biochemistry.	7. Demonstration of Working of Cyclo mixer.		CO1-
8	Preparation of	8. Demonstration of Working of Centrifuge, Weight Balance.	20	COI- CO5
9	solution and	9. Collection of Blood sample.		005
10	reagent.	10. Deproteinization of Blood sample.		
11	Specimen	11. To separate Serum and Plasma.		
12	collection and	12. Preparation of Saturated solutions, Percent solutions, Buffer solutions.		
13	processing.	13. Preparation of Normal and Molar solutions (0.1N NaOH, 0.2 N HCl, 0.1 M H2SO4).		
14	Urine Analysis	14. Analysis of Normal Constituents of Urine.		
15		15. Analysis of Abnormal Constituents of Urine.		
Reference	e Books:			

1. Bishop, Fody and Schoeff, Clinical Chemistry, techniques, principles and correlations.

Dr Ramnik Sood, Medical Laboratory Technology: Methods and Interpretations.
 Singh & Sahni, Introductory Practical Biochemistry.

Shigh & Saini, Intoductory Flattear Dioenenisary.
 Praful B. Godkar, Darshan P. Godkar, Textbook of Medical Laboratory Technology.

Ranjna Chawla, Practical Clinical Biochemistry: Methods and Interpretations.

e-Learning Source:

1. https://youtu.be/t5DvF5OVr1Y

2. <u>https://youtu.be/gggC9vctvBQ</u>

3. <u>https://youtu.be/ufvZ8bYtyO8</u>

		Course Articulation Matrix: (Mapping of COs with POs and PSOs)																				
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5					
СО	101	102	105	104	105	100	10/	100	10)	1010	1011	1012	1501	1502	1505	1304	1505					
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1					
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1					
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1					
CO4	1	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1					
CO5	2	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1					
				<b>A T</b>	a	1 /*	• •	<b>7</b> 1														

2- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation Attributes & SDGs

			Attribu	lies & SDGs								
Course Code	Course Title		Attributes S									
AT115	MEDICAL BIOCHEMISTRY - I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	No.			
	LAB	4	4	√	1		√	4	3,4			



### Integral University, Lucknow

Effective from Sessi	ion: 2022-23											
Course Code	AT116	AT116 Title of the Course BASIC ANESTHESIA TECHNOLOGY LAB L T P C										
Year	I	Semester	П	0	0	2	1					
Pre-Requisite	Nil	Nil Co-requisite Nil										
<b>Course Objectives</b>	The aim and o	The aim and objective of this course is to know about introduction of basic science of Anesthesia & Anesthetic Equipments										

	Course Outcomes: At the end of the course, the student will be able to							
CO1	CO1 Know About Basic Science of Anaesthesia							
CO2	Understanding the Various Equipments involved in Anaesthesia							
CO3	Examine the Anaesthesia Basics & Equipment Functioning							
CO4	Knowabout various Drugs & Techniques used in Anaesthesia							
CO5	Understand the working & use of Boyle's Apparatus & Other Equipments in Daily Anaesthetic Use.							

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Basic Science of Anesthesia Equipments involved in Anesthesia	Observation & Demonstration o Preparation of Anaesthetic equipments.	4	
2	Artificial airways(oral and Nasal	Anesthesia Machine.	4	<b>GO1 F</b>
3	endo-tracheal tubes, Tracheostomy tubes)	Face Masks	4	CO1-5
4	Monitoring Devices	AMBU Bag	4	
5	Suction Apparatus	Spinal & Epidural Needles	4	
Referen	nce Books:		-	
1. G.S	Smith & A. R. Aitkenhead's Text book of	Anaesthesia ELSEVIER		
2. Aja	yYadav Short Text book of Anaesthesia J	P Brothers.		
3. Ans	shul Jain Essentials of Anesthesia & Critic	al Care JAYPEE		
4. Aru	In Kumar Paul Drugs & Equipment	s in Anaesthetic Practice Elsevier		
e-Lea	rning Source:			
4. <u>http</u>	os://www.youtube.com/watch?v=hodJNgm	<u>UKJU</u>		
5. <u>http</u>	os://www.youtube.com/watch?v=-5RkQ5e	<u>zjZ0</u>		

6. <u>https://www.youtube.com/watch?v=o4LlkJsMgpg</u>

	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1
CO4	1	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1
CO5	2	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1

Course Code	Course Title	Attributes								
AT116	INTRODUCTION TO	Employability	Entrepreneurship	Skill	Gender	Environment &	Human	Professional	No.	
	PATHOLOGY,			Development	Equality	Sustainability	Value	Ethics		
	HEMATOLOGY &	٦	4	٦	٦		V	٧	3,4	
	CLINICAL									
	PATHOLOGY- I LAB									