



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

DEPARTMENT OF PHYSIOTHERAPY

**BACHELOR OF PHYSIOTHERAPY
(BPT)
SYLLABUS**

YEAR/ SEMESTER: I/I



Integral University, Lucknow

Effective from Session: 2022-23							
Course Code	PT101	Title of the Course	HUMAN ANATOMY-I	L	T	P	C
Year	I	Semester	I	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The student will be able to demonstrate knowledge in human anatomy as needed for the study and practice of physiotherapy.						

Course Outcomes: After the successful course completion, learners will develop following attributes:

CO1	To understand the level of organization of the human body & its application in practice of physiotherapy.
CO2	To understand the muscles, bones and joints of the various regions & its application in practice of physiotherapy.
CO3	To understand the level of organization of the human different system of the body & its application in practice of physiotherapy.
CO4	To understand the topographical and functional anatomy of the upper limb & its application in practice of physiotherapy.
CO5	To understand the topographical and functional anatomy of the lower limbs and its application in practice of physiotherapy.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	GENERAL ANATOMY	1. Introduction and subdivisions of Anatomy. 2. Anatomical nomenclature: Terms of Planes, Positions, Body parts and movements. 3. Basic tissues of the body: Definition, location and their function. 4. Structure and appendages of skin. 5. Superficial & deep fascia: Definition and functions, modifications of deep fascia.	8	CO1
2	OSTEOLOGY & ARTHROLOGY	1. Define skeleton, classification of skeleton. 2. Bone: properties, function, types, structure, blood supply, ossification. Applied anatomy of bone. 3. Cartilage: types, characteristic and function. Applied anatomy of cartilage. 4. Arthrology: Joint, structure, function and classification. 5. Basic feature and classification of synovial joint. Applied anatomy of joint.	8	CO2
3	SYSTEMIC ANATOMY (Brief outline)	1. Myology: Classification of muscles and its characteristics features. Properties and structure of skeletal muscle. 2. Classification of skeletal muscle according to shape and fascicular architecture, action of muscles. 3. Fascia structure and function Applied anatomy of muscle and fascia. 4. CVS: Arteries, Capillaries, Veins, Heart, Lymphatic system. 5. Respiratory system: Anatomy of upper and lower respiratory tract including lungs, pleura, nose larynx, trachea. 6. Neurology: Anatomical and functional division of nervous system.	8	CO3
4	SUPERIOR EXTREMITY	1. Outline the anatomical features, attachments, ossification and side determination of the bones of upper limb. 2. Muscles of Scapular region and back their origin, insertion action and nerve supply. Details of Deltoid, Trapezius and latissimus dorsi. 3. Fascia and Muscles of front and back of upper arm, fore arm and hand: origin, insertion, nerve supply and action. 4. Joints of superior extremity: Shoulder girdle, Shoulder joint, Elbow, Wrist and joints of hand. 5. Nerves and blood vessels of Superior Extremity and their position course, relations & distribution. 6. Boundaries and contents of axilla and cubital fossa, details of Brachial plexus. 7. Applied anatomy of all structures of Superior Extremity.	8	CO4
5	INFERIOR EXTREMITY	1. Outline the anatomical features, attachments, ossification and side determination of the bones of upper limb. 2. Fascia and Muscles of front, back and medial thigh: origin, insertion, nerve supply and action. 3. Fascia and Muscles of Gluteal region: origin, insertion, nerve supply and action. 4. Fascia and Muscles of anterior, posterior and lateral compartment of leg: origin, insertion, nerve supply and action. 5. Fascia and Muscles of soles of foot: origin, insertion, nerve supply and action. 6. Joints of inferior extremity: Hip girdle, Hip joint, Knee, Ankle and joints of foot. 7. Arches of foot and its significance. Applied anatomy of all structures of inferior Extremity.	8	CO5

Reference Books:

- 1 B.D. Chaurasia's, Human Anatomy-Volume 1, 2, 3 CBS Publishers & Distributors.
- 2 Inderbir Singh, Textbook of Anatomy with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.
- 3 Snell-Clinical Anatomy by regions -Lippincott.
- 4 McMinn's Last's Anatomy-Regional and applied, Churchill Livingstone.
- 5 Cunningham Manual of Practical Anatomy Vol. I, II, III, Churchill Livingstone.
- 6 Williams & Warwick, Gray's Anatomy-Churchill Livingstone.
- 7 Basic Anatomy & Physiology by Smout and McDowell

e-Learning Source:

1. <https://youtu.be/XSRUFZZBH4>
2. https://youtu.be/06o_XNKwuOE
3. <https://youtu.be/4Sab-2E4ZDI>

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	1	-	2	2	1	2	-
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

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
PT101	HUMAN ANATOMY-I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√			√	√	



Integral University, Lucknow

Effective from Session: 2015-16

Course Code	CS107	Title of the Course	COMPUTER APPLICATION IN PHYSIOTHERAPY	L	T	P	C
Year	I	Semester	I	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The main objective of the course is to provide fundamental knowledge of computers, windows, MS word, and Power point						

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.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	COMPUTER FUNDAMENTALS	What is a computer? Components of a computer system. Classification of computers. Types of computers. A brief history of the evolution of computers and generation of computers. Computer hardware and software. Input/ Output devices.	6	CO1
2	DOS	Elementary knowledge of DOS commands DIR, CLS, DATE, TIME, MD, CD, RD, RENAM,DEL, BACKUP, RESTORE, COPY, SCANDISK, CHKDSK.	5	CO2
3	WINDOWS	Difference between windows and DOS. Basic Features - Date, Time, Time Zone, Display, Screen Saver, Fonts, Mouse, and mouse pointers. Using accessories such as a calculator, paintbrush, CD player, etc. Use of Windows Explorer for moving and copying files. Introduction to MS Office and its integrated nature.	6	CO3
4	MS-WORD	Starting Word, new documents, entering text, changing text, aligning, underlining, and justifying text. Use of tabs. Tables - creation, adding rows and columns, splitting, and combining cells, Borders. Saving, closing, and operating documents. Adding headers and footers. Print preview, and print a document. Mail merge: creating main document and data source. Adding and removing fields from the data source.	6	CO4
5	POWERPOINT (PRESENTATION SOFTWARE)	The basic concept of presentation software. Standard, Formatting, and drawing toolbars in PowerPoint and their use. Creating and opening a presentation. Creating, deleting, opening, and copying slides. Closing and saving a presentation. Use of slide sorter, adding header/footer. Use of master slides and color box. Use of animation features. Inserting pictures, resizing pictures. Inserting organization chart. Use of auto content wizard.	6	CO5

Reference Books:

1. A First Course in Computers: Saxena, Vikas Publishing House
2. Fundamentals of Computer science - M. Afshar Alam
3. Fundamental of Information Technology by D. S. Yadav- New age International

e-Learning Source:

1. https://youtu.be/ME_F9yypzsw
2. <https://youtu.be/FZqKyhID7-E>
3. <https://youtu.be/S4Zio60b8P8>
4. https://youtu.be/eEo_aacpwCw

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

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

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
CS107	COMPUTER APPLICATION IN PHYSIOTHERAPY			√					3,4, 11



Integral University, Lucknow

Effective from Session: 2015-16

Course Code	LN101	Title of the Course	BASICS OF PROFESSIONAL COMMUNICATION	L	T	P	C
Year	I	Semester	I	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 students.						

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 of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	PROFESSIONAL COMMUNICATION	a. Professional Communication: Meaning & importance b. Essentials of Effective Communication c. Barriers to Effective Communication	6	CO1
2	LANGUAGE THROUGH LITERATURE	a. Essays: “The Effect of the Scientific Temper on Man” by Bertrand Russell “The Aims of Science and Humanities” by Moody E. Prior b. Short Stories: “The Meeting Pool” by Ruskin Bond “The Portrait of a Lady” by Khushwant Singh	5	CO2
3	BASIC VOCABULARY	a. Euphemism, One-word Substitution, Synonyms, Antonyms b. Homophones, Idioms and Phrases, Common mistakes c. Confusable words and expressions	6	CO3
4	BASIC GRAMMAR	a. Articles, Prepositions, Tenses b. Concord (Subject-Verb agreement), Verbs: kinds & uses c. Degrees of Comparison	6	CO4
5	BASIC COMPOSITION	a. Report writing: What is a report? Kinds and objectives of reports, writing reports b. Business Letter Writing: Introduction to business letters, types of business letters, Layout of business letters, Letter of Enquiry / Complaint	6	CO5

Reference Books:

1. Lata, Pushp& Kumar, Sanjay. Communication Skills, Oxford University Press-2012
2. Quintanilla, Kelly M. & Wahl, Shawn T. Business and Professional Communication, Sage Publications India Pvt. Ltd-2011
3. Juneja, Om P & Mujumdar, Aarati. Business Communication: Techniques and Methods, Orient Black Swan-2010
4. Arora, V. N. & Chandra, Lakshmi. Improve Your Writing: From Comprehensive to Effective Writing, Oxford University Press-2010 (For the prescribed essays- “The Effect of the Scientific Temper on Man” by Bertrand Russell & “The Aims of Science and Humanities” by Moody E. Prior)

e-Learning Source:

1. https://www.youtube.com/watch?v=jQx_jZxdCbs
2. <https://www.sciencedirect.com/topics/psychology/linguistictheory#:~:text=Linguistic%20Theory%20was%20formed%20by,to%20all%20typically%20developing%20humans>
3. <https://linguistics.ucla.edu/undergraduate/what-is-linguistics/>
4. <https://www.thoughtco.com/noam-chomsky-4769113>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

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

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

Attributes & SDGs

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



Integral University, Lucknow

Effective from Session: 2022-23							
Course Code	PT105	Title of the Course	HUMAN ANATOMY-I LAB	L	T	P	C
Year	I	Semester	I	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The student 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 & its application in practice of physiotherapy.
CO2	To identify anatomical and functional aspect of muscles, bones and joints of the various regions practically& its application in practice of physiotherapy.
CO3	To identify and practically apply various terms related to human different system of the body & its application in practice of physiotherapy.
CO4	To identify anatomical and functional aspect of neuromusculoskeletal structure of superior extremity& its application in practice of physiotherapy.
CO5	To identify anatomical and functional aspect of neuromusculoskeletal structure of inferior extremity & its application in practice of physiotherapy.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	GENERAL ANATOMY	1. Practical demonstration of human body on model with using different anatomical terms. 2. Demonstration of Anatomical position and movement of joint with anatomical terms. 3. Practical demonstration of various type of tissue and there location on human body. 4. Practical demonstration of skin and fascia.	4	CO1
2	OSTEOLOGY & ARTHROLOGY	1. Practical demonstration and classification of axial and appendicular skeleton on model. Identification and orientation of bones and joints in an articulated skeleton. 2. Demonstration of types of bone on models. 3. Practical demonstration of various type of cartilage on models.. 4. Practical demonstration of various type of joint and there function on human models. 5. Practical demonstration of movement of various type of synovial joint on human body.	4	CO2
3	SYSTEMIC ANATOMY	1. Demonstrate different terms related to skeletal muscles on human body. 2. Demonstrate different shape of skeletal muscle and action of different group of muscle on human body. 3. Demonstrate location of fascia and fascial line on human body.	4	CO3
4	SYSTEMIC ANATOMY	1. Practical demonstration and identification, side determination, parts, and different bony. land marks and its attachment on non-articular bones of superior extremity. 2. Visual estimation and palpation of different vascular and Neuromusculoskeletal structure of superior extremity on human body. 3. Practical demonstration of action of different muscle of superior extremity. 4. Visual estimation and palpation of the joint line and structure around the joints. 5. Demonstration of Radio imaging anatomy of superior extremity.	4	CO4
5	INFERIOR EXTREMITY	1. Practical demonstration and identification, side determination, parts, and different bony. land marks and its attachment on non-articular bones of inferior extremity. 2. Visual estimation and palpation of different vascular and neuro musculoskeletal structure. of inferior extremity on human body. 3. Practical demonstration of action of different muscle of inferior extremity. 4. Visual estimation and palpation of the joint line and structure around the inferior extremity joints. 5. Demonstration of Radio imaging anatomy of inferior extremity.	4	CO5

Reference Books:

- 1 B.D. Chaurasia's, Human Anatomy-Volume 1, 2, 3 CBS Publishers & Distributors.
- 2 Inderbir Singh, Textbook of Anatomy with Colour Atlas-Vol. 1, 2, 3 Jaypee Brothers.
- 3 Snell-Clinical Anatomy by regions -Lippincott.
- 4 McMinn's Last's Anatomy-Regional and applied, Churchill Livingstone.
- 5 Cunningham Manual of Practical Anatomy Vol. I, II, III, Churchill Livingstone.
- 6 Williams & Warwick, Gray's Anatomy-Churchill Livingstone.
- 7 Extremities by Quining Wasb
- 8 Basic Anatomy & Physiology by Smout and McDowell

e-Learning Source:

4. <https://youtu.be/X5RUFXZZBH4>
5. https://youtu.be/06o_XNKwuOE
6. <https://youtu.be/4Sab-2E4ZDI>

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

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
PT105	HUMAN ANATOMY-I LAB	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√	√		√	√	



Integral University, Lucknow

Effective from Session: 2015-16

Course Code	PT108	Title of the Course	BASICS OF ELECTROTHERAPY	L	T	P	C
Year	I	Semester	I	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The student will be able to demonstrate the practical knowledge in human anatomy as needed for the study and practice of physiotherapy.						

Course Outcomes

CO1	Physical Principles: To understand basic principles of physics, Laws of Electricity, Electro-magnetic spectrum & its application in practice of physiotherapy.
CO2	Effects of Current Electricity: To understand basic principles of electric current& its application in practice of physiotherapy.
CO3	Electrical Supply: To understand basic of electrical supply& its application in practice of physiotherapy.
CO4	Various Agents: To understand basic of various agents& its application in practice of physiotherapy.
CO5	Circuit Diagrams and Basic Knowledge of Equipment's: To understand circuit diagrams and basic knowledge of equipment's& its application in practice of physiotherapy.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	PHYSICAL PRINCIPLES	Demonstration of followings: 1. Diode and Triode valves 1. Transistors, Ammeter 2. Voltmeter, Rheostat 3. Resistance Box, Transformer 4. Stimulator	4	CO1
2	EFFECTS OF CURRENT ELECTRICITY	Demonstration of followings: 1. AC current 2. DC Current 3. Faradic Current 4. Galvanic current 5. Micro current 6. Russian currents	4	CO2
3	ELECTRICAL SUPPLY	Demonstration of followings: 1. Main supply 2. Clinical observation of equipment placement.	4	CO3
4	VARIOUS AGENTS:	Demonstration of followings: 1. Electrophysical agents 2. Clinical observation of equipment placement	4	CO4
5	CIRCUIT DIAGRAMS AND BASIC KNOWLEDGE OF EQUIPMENTS	Demonstration of followings: 1. Short Wave Diathermy 2. Micro Wave Diathermy 3. LASER 4. Ultrasound 5. Clinical observation of equipment placement	4	CO5

Reference Books:

1. Clayton's Electrotherapy (theory and practice) – Clayton's AIBS publications.
2. Electrotherapy Explained by John Low and Reed, 3rd edition, B & H Publications.
3. Practical in Electrotherapy by Joseph Kahn, Churchill Livingstone.
4. Electrotherapy: Evidence Based Practice by Kitchen Sheild, 11th ed.
5. Physical Agents in Rehabilitation: From Research to Practice by Cameron.

e-Learning Source:

- 1 https://youtu.be/P_RQuRzp7SE
- 2 <https://youtu.be/G7UccfwRvwY>
- 3 <https://youtu.be/dNnTubgY2gs>
- 4 <https://youtu.be/7OkYTUZelpw>
- 5 <https://youtu.be/4WX0cp0fn5c>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

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

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
PT108	BASICS OF ELECTROTHERAPY	√	√	√	√		√	√	3,4



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

DEPARTMENT OF PHYSIOTHERAPY

**BACHELOR OF PHYSIOTHERAPY
(BPT)
SYLLABUS**

YEAR/ SEMESTER: I/II



Integral University, Lucknow

Effective from Session: 2022-23							
Course Code	PT112	Title of the Course	GENERAL PSYCHOLOGY AND SOCIOLOGY	L	T	P	C
Year	I	Semester	II	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The student will be able to demonstrate knowledge in clinical as needed for the study and practice of physiotherapy.						

Course Outcomes	
CO1	To understand about psychology & its application in physiotherapy practice.
CO2	To understand about arousal, emotion & awareness, perception & its application in physiotherapy practice.
CO3	To understand about testing, personality and behaviour, attitude & its application in physiotherapy practice.
CO4	To understand about basics of sociology and social factors in health & disease & its application in physiotherapy practice.
CO5	To understand about social group, family, culture and health, social problems & its application in physiotherapy practice.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	BASICS OF PSYCHOLOGY	1. Beginning the study of psychology & Subfields and methods of psychology, Genetics and behaviour, Nature and nurture 2. Development of behavior and principle of learning 3. Thinking and problem solving 4. Drives and motivation	6	CO1
2	AROUSAL, EMOTION & AWARENESS, PERCEPTION	1. Psychological basis of arousal & emotion Emotional feelings & Situations 2. Objective Perception, Perceptual Constancies 3. Depth Perception, Influences on Perception	6	CO2
3	TESTING, PERSONALITY AND BEHAVIOR, ATTITUDE	1. What is Personality, Theories of Personality, Shaping of Personality, Coping Behaviour 2. The Nature of Attitudes, Prejudice & Discrimination, Development of Attitudes, Social Movements 3. Behavior Disorders, Personality disorders 4. Uses of Psychological Tests, Intelligence & Aptitude Tests, Personality tests	6	CO3
4	BASICS OF SOCIOLOGY AND SOCIAL FACTORS IN HEALTH & DISEASE	1. Definition and scope of sociology 2. Importance of sociology to health care professionals. 3. The meaning and nature of socialization 4. The role of social factors in health and illness	6	CO4
5	SOCIAL GROUP, FAMILY, CULTURE AND HEALTH, SOCIAL PROBLEMS	1. Concept of culture, Culture and behaviour, Culture and Health Disorders 2. Population explosion, Poverty and unemployment 3. Beggary, Juvenile delinquency 4. Alcoholism, Problems of women in employment	6	CO5

Reference Books:	
1.	Fundamentals of Biochemistry-by Dr. Deb Jyoti Das,
2.	Essentials of Bio-chemistry by U. Satyanarayan, 1st Edition, Books and Allied Publications.
3.	Textbook of Biochemistry –Chatterje and Shinde
4.	Text book of Medical Bio-Chemistry – Dr. M.N.Chatterjee, 5th Edition, Jaypee Publication.
5.	Fundamental of Bio-Chemistry – Dr.Dr.A.C.Deb, 5th Edition, Central Publication.
6.	Bio-Chemistry introduction – Mekee, 2nd Edition, McGraw-Hill Publication
e-Learning Source:	
1.	https://youtu.be/PqRvnUofNCU
2.	https://youtu.be/a1oHRj_t_Bw
3.	https://youtu.be/ghMjJRIksp0
4.	https://youtu.be/PIIAwx--KtM

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

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

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
PT112	GENERAL PSYCHOLOGY AND SOCIOLOGY	√	√	√	√		√	√	3,4



Integral University, Lucknow

Effective from Session: 2015-16							
Course Code	ES101	Title of the Course	ENVIRONMENTAL STUDIES	L	T	P	C
Year	I	Semester	II	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	To study about the Environment and the Ecosystem. To study about the Natural Resources. To study about Biodiversity and Conservation. To study Environmental pollution, its policies and practices. To study Human Population and Environmental Ethics.						

Course Outcomes	
CO1	Gain knowledge about environment and ecosystem
CO2	Students will learn about natural resource, its importance and environmental impacts of human activities on natural resource.
CO3	Gain knowledge about the conservation of biodiversity and its importance.
CO4	Aware students about problems of environmental pollution, its impact on human and ecosystem and control measures.
CO5	Students will learn about increase in population growth and its impact on environment.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to Environment and Ecosystem	Environment, its components and segments, Multidisciplinary nature of Environmental studies, Concept of Sustainability and sustainable development, Environmental movements, Ecosystem, Structure & Function, Energy flow in the Ecosystem, Ecological Pyramids and Ecological Succession.	6	CO1
2	Natural Resources	Renewable and non-renewable, Soil erosion and desertification, Deforestation, Water: Use and over exploitation, Impacts of large Dams, Case studies	6	CO2
3	Biodiversity and Conservation	Levels of biological diversity, Hot spots of biodiversity, India as a Mega Diversity Nation, Endangered and endemic species of India, Threats to Biodiversity, Conservation of Biodiversity, Ecosystem and biodiversity services.	6	CO3
4	Environmental Pollution, Policies and Practices	Environmental pollution, Solid waste management, Ill effects of fireworks, Climate change, Ozone layer depletion, acid rain and impacts on human communities and Environment, Environmental Laws: Environment Protection Act, Wildlife protection Act, Forest conservation Act, Convention on Biological Diversity (CBD), Tribal rights, Human wildlife conflicts.	6	CO4
5	Human Population and the Environment	Human population growth: Impacts on environment, human health and welfare, Resettlement and rehabilitation of project affected persons, Environmental ethics, Environmental communication and public awareness, case studies.	6	CO5

Reference Books:

- 1) Agarwal, K.C. 2001 Environmental; Biology, Nidi Pub. Ltd. Bikaner.
- 2) Bharucha Erach, The Biodiversity of India, Mapin Pub. Pvt. Ltd., Ahemdabad-380, India.
- 3) Brunner R.C. 1989. Hazardous waste incineration, Mc Graw Hill
- 4) Clark R.S. Marine Pollution, Clanderon Press Oxford (TB)
- 5) Cunningham W.P.2001.Cooper, T.H. Gorhani, E & Hepworth, Environmental encyclopedia, Jacob Publication House, Mumbai.
- 6) De. A.K. Environmental chemistry Willey Eastern Limited.
- 7) Glick, H.P.1993 water in crisis, Pacific Institute for studies in dev, Environment & security, Stockholm Env, Institute, Oxford Univ, Press 473 p.
- 8) Hawkins R. E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay.
- 9) Heywood, V.H. & Watson, R. T.1995.Global biodiversity Assessment.Cambridge Univ. Press 1140 p.
- 10) Jadhve, H. and Bhosale, V. M. 1995 Environmental protection and laws, Himalaya pub, house, Delhi.284 p.
- 11) Mckinnery, M.L. and School, R. M.1996 Environmental science systems and solutions, web enhanced edition 639 p.
- 12) Mhaskar A.K. Matter Hazardous, Techno Science Pub (TM)
- 13) Miller T.G. Jr, Environmental Ecology, W. B. Saunders Co.USA.574 p. 16
- 14) Odum, E.P.1997.Fundamental chemistry, Goel Pub House Meerut.
- 15) Survey of the Environment, The Hindu (M).
- 16) Sharma B.K.2001.Environmental Chemistry, Goel Pub House Meerut

e-Learning Source:

<https://byjus.com/biology/difference-between-environment-and-eCOsystem>
<https://www.youtube.com/watch?v=dRPI4TB8w7k>
<https://www.youtube.com/watch?v=3fbEVytyJCK>
<https://www.vedantu.com/biology/conservation-of-biodiversity>
<https://youmatter.world/en/definition/soil-erosion-degradation-definition/>
<https://byjus.com/biology/difference-between-environment-and-eCOsystem>

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	PSO6	
	CO1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
CO4	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	1	1	-	-	1	2	-	-	-	1	1	-	-

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

Attributes & SDGs Common for all branches/Disciplines

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
ES01	Environmental Studies							√	6,13,14,& 15



Integral University, Lucknow

Effective from Session: 2015-16

Course Code	LN202	Title of the Course	ADVANCE PROFESSIONAL COMMUNICATION	L	T	P	C
Year	I	Semester	I	2	1	0	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The objective is focusing on improving communication skills within a wide array of sectors. The students will feel confident in workplace communication, writing and reports, and project development.						

Course Outcomes

CO1	Reading & Listening Comprehension: To Develop Coherence, Cohesion and Competence in Oral Discourse through Intelligible Pronunciation
CO2	Writing Skills: To Develop and Expand Writing Skills through Controlled and Guided Activities
CO3	Group Discussion And Interview Skills: To feel confident in workplace communication and handle the interview process confidently
CO4	Presentation Skills: To understand about the advance and efficient presentation skills.
CO5	Project Work: To understand about the writing reports and project development.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	READING & LISTENING COMPREHENSION	1. Ways to improve the Speed & Efficiency of Reading 2. Importance of Skim Reading 3. Listening Skills & Features of Effective Listening 4. Benefits of Effective Listening	6	CO1
2	WRITING SKILLS	1. C V & Resume writing 2. Job Application letter/Covering letter 3. Precis: Principles of Condensation 4. Paragraph writing 5. Development of Paragraph	6	CO2
3	GROUP DISCUSSION AND INTERVIEW SKILLS	1. Group Discussion: Meaning & Significance, How to prepare & practice for GD, Common Pitfalls in a GD 2. Interview: Definition, Skills & Techniques 3. Preparation of Interview 4. Negative Interview Factors 5. Interview Tips	6	CO3
4	PRESENTATION SKILLS	1. Presentation Strategies: Purpose, Audience and Locale, Organizing Contents 2. Audio-Visual Aids, Nuances of Delivery, Body Language, Voice Dynamics	6	CO4
5	PROJECT WORK	1. At the commencement of the semester, the student would be assigned a topic by the Teacher/Instructor. They will research it & submit a duly documented report of about 20-25 pages by the end of the semester. 2. Role of Information Technology in Environment and Human Health, Case studies	6	CO5

Reference Books:

1. Raman, Meenakshi & Sharma, Sangeeta. Technical Communication: Principles and Practice, Oxford University Press-2013.
2. Konar, Nira. Communication Skills For Professionals, PHI Learning Pvt. Ltd -2011
3. Board of Editors. Written and Spoken Communication in English, University Press-2007
4. Lata, Pushp & Kumar, Sanjay. Communicate or Collapse :A Handbook of Effective Public Speaking, Group Discussions and Interviews, PHI Learning Pvt.Ltd -2011
5. Duck, Steve & McMahan, David T. The Basics of Communication : A Relational Perspective, Sage Publication-2012.
6. Laws, Anne- Presentations, Orient Black Swan-2011
7. O'Connor, J. D. Better English Pronunciation, Universal Books Stall-1991
8. Anderson, Marilyn, Nayar, Pramod K. & Sen, Madhuchhanda. Critical Thinking, Academic Writing and Presentation Skills, Pearson-2009

e-Learning Source:

1. <https://www.youtube.com/watch?v=-U11FBVU-g>
2. <https://www.youtube.com/watch?v=cAMmqOoWy2k>
3. <https://www.youtube.com/watch?v=nty0NxKpYWk>
4. <https://www.youtube.com/watch?v=4WL9tzE12Fw>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

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

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

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
LN202	ADVANCE PROFESSIONAL COMMUNICATION			√					3,4, 11

