INTEGRAL UNIVERSITY, LUCKNOW

INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PHYSIOTHERAPY

MASTER OF PHYSIOTHERAPY
(MPT)
SPORTS

SYLLABUS

YEAR/ SEMESTER: I/I

Integral University, Lucknow

Effective from Session: 2020-2021							
Course Code	**PT501**	**Title of the Course**	**BASIC HEALTH SCIENCES**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	Nil				
Course Objectives	Student will learn the principles, technique, and effects of different concepts of anatomy, physiology, pathology, pharmacology & radiology in the restoration of basic knowledge and also implementation of evidence based practical approach.						

Course Outcomes	
CO1	To provide the basic understanding of different Musculoskeletal structure like bone, muscles ligament and its microscopic structural design and differences and importance.
CO2	To making the students able to understand about the smallest functional unit of the human body, its electrophysiological response and membrane potential.
CO3	Making the students about the pathophysiological response of the body and mechanism action of immune system in different pathological condition.
CO4	The objective of this unit is to make the students able to understand about the pharmacokinetics and Pharmacodynamics response of different drugs and its uses and side effect.
CO5	To provide the optimal knowledge of different imaginary tool which is used to rule- out different anomalies related to musculoskeletal system.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	ANATOMY	1. Micro structure for various soft tissue structures like Ligaments, Muscle, bone, cartilage, articular cartilage tendon and disc. 2. Embryology (ossification of various bones). 3. Musculoskeletal anatomy of human body. 4. Joints and Its Classification	8	CO1
2	PHYSIOLOGY	1. Cell and its function. 2. Electrophysiology, Membrane potential. 3. Muscle Physiology, Contraction of skeletal muscle. 4. Effects of ageing.	8	CO2
3	PATHOLOGY	1. Immune system: Immune response, immunology and exercise, autoimmune diseases, isoimmune diseases. 2. Oncology. 3. Response to trauma, specific tissue injury. 4. Metabolic disorders. 5. Tuberculosis–musculoskeletal.	8	CO3
4	PHARMACOLOGY	1. Pharmacokinetics and Pharmacodynamics. 2. Anti-Anaemic, 3. Hormones, 4. Insulin, 5. Steroids, 6. Diuretics	8	CO4
5	RADIOLOGY	Basics of Imaging Techniques in Orthopaedic conditions 1. Ultrasonography, 2. X-rays, 3. CT Scan, 4. MRI scanning, 5. Bone Scan, 6. Dexa Scan	8	CO5

Reference Books:

1. Gray's Anatomy
2. Pharmacology in Rehabilitation. Ciccone
3. Clinical Anatomy – Snell
4. Boyd's Textbook of Pathology – A.C. Ritchie
5. Textbook of Medical Physiology - Guyton - Mosby.
6. Pathologic Basis of Diseases - Robbins, Kotran and Kumar - W.B. Saunders.

e-Learning Source:

1. https://youtu.be/Bt0aaxpDlTd8
2. https://youtu.be/Bt0axxrpDlTd8
3. https://youtu.be/hpwnnlr-ZHB0

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	3	2	-	-	-	1	1	-	1	-	-	-	3	3	1	1	-
CO2	3	3	-	-	-	1	1	-	1	-	-	-	3	3	1	1	-
CO3	3	3	3	1	2	2	1	1	1	-	-	-	2	3	1	1	-
CO4	-	-	2	-	2	2	2	-	-	-	-	-	1	2	2	-	-
CO5	2	3	3	1	3	3	1	-	-	-	-	1	3	3	2	-	-

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	
PT501	Basic health sciences	√		√			√	√	3,4

Integral University, Lucknow

Effective from Session: 2015-2016							
Course Code	**PT502**	**Title of the Course**	**ADVANCED ELECTROTHERAPY AND ELECTRODIAGNOSIS**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Student will learn the principles, technique, and effects of different electrotherapeutic and electro diagnostic modality in the restoration of physical function, its clinical implication and evidence based practical approach.						

Course Outcomes	
CO1	To understand about different electrotherapy modalities and uses of current for treatment of neuromusculoskeletal problem and its effect on different system.
CO2	To understand about the advancement of electrotherapy and its effect on neuromusculoskeletal and musculoskeletal rehabilitation.
CO3	To understand about different electrotherapy modalities which are used for diagnose and treat the problem related to the neuromusculoskeletal.
CO4	To deals with the recent advances which occur in electrotherapy like extracorporeal shock wave therapy and its future prospective.
CO5	To understand about the recent advances in electrotherapeutic modalities like pulsed and continuous diathermy, pulsed and continuous microwave diathermy, Ultrasonic Therapy, LASER, Thermotherapy, Cryotherapy, Infra-Red, etc.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	ELECTRO PHYSIOLOGY	1. Neurophysiology basis for application of therapeutic electricity. a) Nerve and muscle excitation induced by external applied stimulation b) Reflex activation and synaptic transmission, Excitation of alpha motor neurons. 2. Electrophysiology of pain and its management. Electrodiagnosis and electrotherapeutic instrumentation, Types of stimulation electrodes, Placement of electrodes Different components in diagnostic equipment's e.g., processor, amplifiers, processors, rectifiers, and display devices. Signal processor and amplification and filtering.	8	CO1
2	TENS ADVANCEMENT	1. Recent advances in application of TENS for neuromuscular and musculoskeletal rehabilitation. 2. Role of different electrotherapeutic modalities in management of pain and healing. Clinical decision making in the use of appropriate modality in neuromuscular, musculoskeletal, Neurological, cardiopulmonary, and sports conditions.	8	CO2
3	ELECTRO DIAGNOSIS	1. Electrical evaluation of nerve and muscle excitability. a) SD curve and chronaxie test b) Nerve conduction test Motor nerve conduction-Motor nerve conduction, Sensory nerve conduction, H-reflex response, Evoked potential tests (Somatosensory evoked potentials, Visual evoked potentials and Auditory evoked potentials) Electromyography and bio-feedback) Biophysical principles, Clinical considerations, Clinical application of musculoskeletal patients, Clinical application of neuromuscular patients. b) Role of E.M.G.B.F.B in sports training and rehabilitation. c) EMG- Normal, abnormal EMG and indications	8	CO3
4	ADVANCEMENT IN ELECTRICAL MODALITIES	1. Extracorporeal Shock Wave Therapy a) Biophysical and Biophysiological principals b) clinical application in musculoskeletal rehabilitation c) Future prospects of E.S.W.T. in musculoskeletal rehabilitation. 2. .F.E.S. in Rehabilitation a) Evidence based practice b) Clinical application 3. NMES and clinical applications: Disuse atrophy, ROM, Muscle re-education and facilitation, Spasticity management, Orthotic substitution, Gait training, Shoulder subluxation	8	CO4
5	ELECTRO THERAPEUTIC MODALITIES	1. Recent advances, critical evaluation and current status of different electrotherapeutic modalities like pulsed and continuous diathermy, pulsed and continuous microwave diathermy, Ultrasonic Therapy, LASER, Thermotherapy, Cryotherapy, Infra-Red, etc. In musculoskeletal, neuromuscular, sports and cardiovascular rehabilitation.	8	CO5

Reference Books:

1. Electrotherapy: Evidenced based Therapy by Sheila Kitchen.
2. Clinical Electrotherapy & Electrophysiological Testing by Andrew J Robinson.
3. Electrotherapy/; Evidenced based practice by Tim Watson.
4. Physical Agents in Rehabilitation – Cameron.

e-Learning Source:

1. https://youtu.be/Bt0aaxpDlTd8
2. https://youtu.be/Bt0axxrpDlTd8
3. https://youtu.be/hpwnnlr-ZHB0
4. https://youtu.bee/KHvfdKyw2I8

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	3	3	3	3	3	1	2	1	-	-	-	-	3	1	3	2	2
CO2	3	3	3	3	3	2	3	1	-	-	-	-	3	1	3	2	2
CO3	3	3	3	3	3	3	3	1	-	-	-	-	3	1	3	2	2
CO4	3	3	3	3	3	3	3	1	-	-	-	-	3	1	3	2	2
CO5	3	3	3	3	3	3	3	3	-	-	-	-	3	3	3	2	2

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

Attributes & SDGs Common for all branches / Disciplines

Course Code	Course Title	Attributes							SDGs No.
PT502	ADVANCED ELECTROTHERAPY AND ELECTRODIAGNOSIS	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	3,4, 9

Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	**PT503**	**Title of the Course**	**RESEARCH METHODOLOGY & BIOSTATISTICS**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Student will learn the research methodology, research problem, design, estimation and calculation of sample size, qualitative and research analysis, data analysis.						

Course Outcomes	
CO1	Outcome of this unit deals with the research methodology, research problem, design, measurement and scaling technique.
CO2	Outcome of this unit to making the students understands about research ethics, how to write a research proposal choosing and developing research question.
CO3	Outcome of this unit facilitates the students about writing thesis & journal article, presenting research and attending a scientific conference.
CO4	Outcome of this unit is to making students able about the processing and analysis of data and interpretation, testing of hypothesis etc.
CO5	Outcome of this unit is to making the students able about estimation and calculation of sample size, qualitative and research analysis, data analysis etc.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	RESEARCH	1. An introduction to research methodology. 2. Defining the research problem. 3. Review of literature/use of IT & Database for ROL. 4. Research Design–Experimental & Non-experimental. 5. Qualitative & Quantitative research 6. Reliability & validity. 7. Sampling technique & sample size calculation 8. Sampling error & non sampling error	8	CO1
2		1. Research ethics. 2. Writing proposal, & writing in scientific style. 3. Critiquing article. 4. Presenting research Proposal. 5. Applying for research funding.	8	CO2
3		1. Writing thesis & journal article. 2. Attending a scientific conference. 3. Preparing a conference poster . 4. Guidelines for development/ refinement, evaluation and use of assessment tools (including attitude scales): scoring, administering tests & critiquing tools. 5. Presentation & publication of research- steps and process.	8	CO3
4	BIOSTATISTICS	1. Biostatistics- introduction and application in Physiotherapy, Types of data, collection, Measurement and scaling techniques, Graphical representation, measure of central tendency, variation, and association. 2. Processing and analysis of data and Interpretation. 3. Probability and standard distributions the binominal distribution, the normal distribution, Skewness, kurtosis. 4. Karl Pearson & Spearman's Correlation & correlation coefficient. 5. Steps of hypothesis testing.	8	CO4
5		1. Parametric or standard tests of hypotheses, non-parametric or distribution-free tests 2. Analysis of variance and covariance. 3. Multivariate analysis techniques. 4. Qualitative analysis. 5. Software use for data analysis – STATA, SPSS etc.	8	CO5

Reference Books:

1. Handbook of Research in Physical Therapy, by C. E. Bork
2. Physical Therapy Research: Principles and Application, by E. Domholdt
3. Research Methodology for Physical Therapists, by C. Hicks
4. Professionalism in Physical Therapy by Swisher
5. Introduction to Research in Health Sciences, by Stephen Polgar

e-Learning Source:

1. https://youtu.be/Bt0aaxpDlTd8
2. https://youtu.be/Bt0axxrpDlTd8
3. https://youtu.be/hpwnnlr-ZHB0
4. https://youtu.bee/KHvfdKyw2I8

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

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CO1	1	1	2	2	2	2	3	3	3	-	2	-	2	1	3	3	3
CO2	1	1	2	2	2	2	3	3	3	-	2	-	2	1	3	3	3
CO3	1	1	2	2	2	2	3	3	3	-	2	-	2	1	3	3	3
CO4	1	1	2	2	2	2	3	3	3	-	2	-	2	1	3	3	3
CO5	1	1	2	2	2	2	3	3	3	-	2	-	2	1	3	3	3

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

Attributes & SDGs Common for all branches / Disciplines

Course Code	Course Title	Attributes							SDGs No.
PT503	RESEARCH METHODOLOGY & BIOSTATISTICS	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	4,9

Integral University, Lucknow

Effective from Session: 2023-2024							
Course Code	**PT504**	**Title of the Course**	**EXERCISE TESTING AND PRESCRIPTION**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will able to understand and make decision on exercise testing and prescription at different rehabilitation set up for diagnostic, prognostic & therapeutic outcome.						

Course Outcomes	
CO1	The student understands exercise testing in different set up as a diagnostic, prognostic & therapeutic and of various exercise over Cardiorespiratory & musculoskeletal system.
CO2	The students understand various test associated with pulmonary disorder and interpretation to design the tailored exercise protocol and to understand how different body composition affects the human performance.
CO3	The students learn the various effect of exercise on different body system and learn the basic principle of different exercise program which helps them in achieving good physical fitness.
CO4	The student learns to understand about the various arthritis condition along with the different principles governs the exercise program and enlighting the health behavior program and the various channels affecting exercise program.
CO5	The student understands about the problem associated with Health care industries which covers staff and operating system in designing the various program under an umbrella of different policies & legal aspect for safety in operating health clinics.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	PHYSICAL ACTIVITY FOR HEALTH AND FITNESS	1. Factors associated with increased risk of coronary heart disease. 2. General overview of Pre-participation Health screening and risk assessment. 3. Physical Activity Assessment. 4. Assessment of Dietary Intake. 5. Factors Associated with Regular Physical Activity Participation 6. Behavioral Strategies to Enhance Physical Activity Participation	8	CO1
2	EXERCISE TESTING	1. Pre exercise evaluation 2. Health Related Physical Fitness Testing and Interpretation • Pretest instruction • Body Composition • Cardio respiratory fitness • Muscular Strength and Endurance 3. Medical Consideration 4. Body Composition. 5. Clinical Exercise Testing related to cardiovascular disease. 6. Assessment and Limitations Associated with Pulmonary Disease. 7. Exercise Testing in Patients with Diabetes. 8. Clinical Exercise Testing in Individuals with Disabilities Due to Neuromuscular Disorders.	8	CO2
3	PRINCIPLES AND ADAPTATIONS TO EXERCISE TRAINING	1. Cardiopulmonary Adaptations to Exercise. 2. Adaptations to Resistance Training. 3. Principles of Cardiorespiratory Endurance Programming. 4. Principles of Musculoskeletal Exercise Programming. 5. Weight Management. 6. Medical Considerations.	8	CO3
4	EXERCISE TESTING AND TRAINING FOR INDIVIDUALS WITH CHRONIC DISEASE	1. Exercise Training in Patients with Cardiovascular Disease. 2. Treatment and Rehabilitation of Pulmonary Diseases. 3. Kidney Disease 4. Osteoporosis and Exercise. 5. Arthritis Diseases and Conditions. 6. Neuromuscular Diseases and Exercise.	8	CO4
5	HUMAN BEHAVIOURAL PRINCIPLES AND EXERCISE PROGRAM ADMINISTRATION	1. Principles of Health Behaviour Change 2. Channels for Delivering Behavioral Programs 3. Factors Associated with Regular Physical Activity Participation 4. Behavioral Strategies to Enhance Physical Activity Participation 5. Health Counseling Skills 6. Health Fitness Program Development and Operation 7. Policies and Procedure for Program Safety and Compliance 8. Legal Consideration	8	CO5

Reference Books:

1. Exercise Testing & Prescription by David C. Neiman, Mc. Graw Hill.
2. Exercise training and exercise prescription for special cases. Theoretical basis and clinical application by James A. Skinner, Lippincott Williams and Wilkins.

e-Learning Source:

1. https://youtu.be/Bt0aaxpDlTd8
2. https://youtu.be/Bt0axxrpDlTd8
3. https://youtu.be/hpwnnlr-ZHB0

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	3	3	2	2	2	2	1	-	2	-	-	-	1	1	1	2	2
CO2	3	3	3	3	3	2	2	1	2	-	-	-	3	3	2	1	2
CO3	3	3	3	2	2	2	2	1	1	-	-	-	2	1	3	3	2
CO4	1	1	2	1	2	2	2	1	2	-	-	-	3	1	1	1	3
CO5	1	1	1	1	1	1	1	2	2	2	1	3	1	1	1	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.
PT504	EXERCISE TESTING AND PRESCRIPTION	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	3,4,9

Integral University, Lucknow

Effective from Session: 2021-2022							
Course Code	**PT505**	**Title of the Course**	**SEMINAR ON CLINICAL ISSUES**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	0	3	0	3
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	This course will serve as a platform for students to integrate various components of patient management and debate contentious issues in the efficacy of Physiotherapy techniques used in musculoskeletal, neurological, cardiopulmonary, & Sports rehabilitation as well as enhance presentation skills.						

Course Outcomes	
CO1	The students will understand and interpret latest advancements through different technical papers, reports, Journals, Data sheets, books etc
CO2	The students will inculcate the skills for literature survey and will learn to manage resources effectively.
CO3	The students will be able to summarize the recent research and technologies in the form of review and will be able to deliver power pointpresentations on an assigned topic.
CO4	The students will be able to communicate his/her ideas with his peers as audience, which will enhance both oral and written communicationskills.
CO5	The students will be able to create interest to pursue lifelong learning.

SEMINAR PRESENTATION ASSESSMENTN FORM

Name of Student:		**Session:**	2022-23
Enrollment Number:		**Date:**	
Name of Subject:	Seminar on Clinical Issues	**Subject code:**	PT505
Topics:			

Criteria	Sub-Criteria	Max. Marks	Marks Obtained
Introduction (Max marks-09)	Use appropriate background information	03	
	Has clear statement of purpose	03	
	Shows a logical sequence	03	
Factual Content (Max marks- 21)	Includes accurate information	03	
	Shows up-to-date content	03	
	Presents relevant content	03	
	Shows in-depth and sufficient details	03	
	Addresses all important issues	03	
	Is selective	03	
	Use of proper English Grammar in the text	03	
Presentation Quality (Max marks-06)	Has a good design of presentation (appropriate font, type, size, color, matter per slide etc.)	03	
	Has a clear verbal expression and eye contact with audience	03	
Response to questions (Max marks-09)	Answers question(s) correctly	03	
	Has the ability to think on the spot	03	
	Shows an ability to defend content of presentation	03	
Time Management (Max. mark-05)	Completes the presentation within allocated time	05	
	Total Marks	50	

Note: In case of Oral Presentation, each student will be assessed in a 20 minutes time (15 min for presentation & 5 min for discussion) out of 50 marks.

Comments/Suggestions:

(Name and signature of Incharge) **(Head, Physiotherapy)**

EVALUATION OF SEMINAR ON CLINICAL ISSUES PRESENTATION

MPT- Students has to prepare minimum 2 long case and 2 short cases during their seminar presentation during due course of time. The evaluation for internal seminar examination of 100 marks will be distributed:

Cases during clinical posting=**45 marks**.

Viva voce =**50 marks**

Attendance=**5 marks**

	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	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
CO2	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
CO3	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
CO4	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
CO5	3	3	3	3	2	2	3	2	1	3	-	-	3	2	3	3	2

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	
PT505	**SEMINAR ON CLINICAL ISSUES**	√	√	√			√	√	**3,4,9, 17**

Integral University, Lucknow

Effective from Session: 2021-2022							
Course Code	**PT506**	**Title of the Course**	**CLINICAL POSTING**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**I**	0	0	14	7
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will engage in clinical practice in Physiotherapy departments in the musculoskeletal, neurology, cardiopulmonary, sports settings to enhance their clinical skills and apply contemporary knowledge gained during teaching sessions.						

Course Outcomes	
CO1	To learn the punctuality and interaction with colleague and supporting staff during clinical training.
CO2	To develop assessment skills.
CO3	To develop appropriate treatment protocol.
CO4	To understand the importance of documentation of the case record and case presentation.
CO5	To develop discipline and improve overall quality of clinical work.

CLINICAL POTING ASSESSMENTN FORM

Name of Student:		**Session:**	
Enrolment Number:		**Date:**	
Name of Subject:	Clinical Posting	**Subject code:**	PT506
Topics:			

S. No.	Point to be Considered	Max. Marks	Marks Obtained
1.	Punctuality	5	
2.	Interaction with colleagues and supporting staff	5	
3.	Maintenance of case records	5	
4.	Presentation of case during rounds	5	
5.	Investigation work up	5	
6.	Bedside Manners	5	
7.	Rapport with patients	5	
8.	Treatment approach & technique	5	
9.	Discipline	5	
10.	Overall quality of clinical work	5	
	TOTAL SCORE	**50**	

(Name and signature of Incharge) **(Head, Physiotherapy)**

GUIDELINES FOR CLINICAL TRAINING PROGRAM

The students of Post Graduate Physiotherapy program must spend above mentioned allotted time period in the hospital based clinical training for specified clinical experiences to meet the objectives of the training program. This period of practical and theoretical experience will enable the students to acquire competency and experience to perform as an independent practice and will enable to adjust to the real practical life in different units in the hospital settings.

S.No.	Program Name	Year/Semester	Duration of Training
1.	MPT	Ist Year/ Ist Semester	4 Months
2.		Ist Year/ IInd Semester	4 Months
3.		IInd Year/ 3rd Semester	4 Months
4.		IInd Year/ 4th Semester	4 Months

By the successful completion of this clinical training period, the student is expected to fulfil the objectives of the program and will be examination as given below:

S.No.	Program Name	Year/Semester	Case file	Practical on Case	Voice/Viva	Attendance
1.	MPT	Ist Year/ Ist Semester	20 Marks	25 Marks (1 Long Case and 2 Short Case)	50 Marks	5 Marks
2.		Ist Year/ IInd Semester				
3.		IInd Year/ 3rd Semester				
4.		IInd Year/ 4th Semester				

EVALUATION OF CLINICAL POSTING

MPT- Students has to prepare 1 long case and 2 short cases during their clinical posting. The evaluation for internal clinical examination of 100 marks will be distributed:

Cases during clinical posting=**45 marks**.

Viva voce =**50 marks**

Attendance=**5 marks**

	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	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
CO2	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
CO3	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
CO4	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
CO5	3	3	3	3	2	2	3	2	1	3	-	-	3	2	3	3	2

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

Attributes & SDGs Common for all branches / Disciplines

Course Code	Course Title	Attributes							SDGs No.
PT506	**CLINICAL POSTING**	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	**3,4,11**

INTEGRAL UNIVERSITY, LUCKNOW

INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PHYSIOTHERAPY

MASTER OF PHYSIOTHERAPY
(MPT)
SPORTS

SYLLABUS

YEAR/ SEMESTER: I/II

Integral University, Lucknow

Effective from Session: 2022-2023							
Course Code	**PT507**	**Title of the Course**	**MEDICAL & SURGICAL CONDITION**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will be able to know and revise the basic concept muscloskeletal, neurological, cardiopulmonary, sports and their diagnostic concepts.						

Course Outcomes	
CO1	To know the basic concept of disorder and condition of muscloskeletal conditions.
CO2	To know the basic concept of disorder and condition of neurological conditions.
CO3	To know the basic concept of disorder and condition of cardiopulmonary conditions.
CO4	To know the basic concept of disorder and condition of sports conditions.
CO5	To know the basic concept of disorder or condition of on the basis of diagnostic tolls.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	MUSCULOSKELETAL TRAUMA & DISORDERS	1. Brief about Trauma of the Upper Limb, Trauma of the Lower Limb, Trauma of the Spine. 2. Brief about Disorders of the Upper Limb, Disorders of the Lower Limb, Disorders of the Spine. 3. Brief about Metabolic Disorders of the Bone. 4. Brief about bone tumors.	8	CO1
2	NEUROLOGICAL TRAUMA & DISORDERS	1. Brief about Traumatic injury of brain & spinal cords. 2. Brief about Traumatic injury of upper limb and lower limb nerve. 3. Brief about disease of brain, spinal cord and nerves. 4. Brief about disease neuromuscular disorders.	8	CO2
3	CARDIOVASCULAR TRAUMA & DISORDERS	1. Brief about Obstructive Pulmonary Diseases, restrictive pulmonary diseases. 2. Brief about cardiovascular disorders. 3. Brief about cardiovascular disease of new born and children. 4. Brief about cardiothoracic surgeries.	8	CO3
4	SPORTS INJURIES	1. Brief about common sports injuries (contact & non contact) of upper limb & lower limb. 2. Brief about common sports injuries of head, spine chest and abdomen. 3. Brief about Female athletes & their special concerns. 4. Brief about disabled athletes and their special concerns.	8	CO4
5	LABORATORY, IMAGING AND ELECTRO DIAGNOSTIC STUDIES	1. Laboratory and imaging studies used in musculoskeletal disease and trauma. 2. Laboratory, imaging studies and electro diagnostic studies used in neurological disease and trauma. 3. Laboratory and imaging studies used in cardiopulmonary disease. 4. Laboratory and imaging studies used in sports injuries.	8	CO5

Reference Books:

1. Current Diagnosis & treatment in Orthopaedics by Harry Skinner
2. Essential of Musculoskeletal Care by Walter Green
3. Orthopaedics Imaging A Practical Approach by Adam Greenspan
4. Principles of Neurology; Adam & Victor
5. Brain's Clinical Neurology. R Bannister
6. . Saunder's Mannual for Neurologic Practice. Randolf Evans, Elsevier
7. Starkey, C., & Ryan, J. L. Evaluation of Orthopedic and Athletic Injuries; F. A. Davis.
8. Arnheim, D. D, & Prentice, W. E. Principles of Athletic Training, 10th Ed. Brown & Benchmark.
9. Principles and Practice of Medicine. Davidson

e-Learning Source:

4. https://youtu.be/Bt0aaxpDlTd8
5. https://youtu.be/Bt0axxrpDlTd8
6. https://youtu.be/hpwnnlr-ZHB0

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	3	2	-	-	-	1	1	-	1	-	-	-	3	3	1	1	-	3
CO2	3	3	-	-	-	1	1	-	1	-	-	-	3	3	1	1	-	3
CO3	3	3	3	1	2	2	1	1	1	-	-	-	2	3	1	1	-	3
CO4	-	-	2	-	2	2	2	-	-	-	-	-	1	2	2	-	-	-
CO5	2	3	3	1	3	3	1	-	-	-	-	1	3	3	2	-	-	2

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	
PT507	MEDICAL & SURGICAL CONDITION	√		√			√	√	3,4

Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	**PT508**	**Title of the Course**	**BIOMECHANICS AND KINESIOLOGY-I**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will be able to identify and apply principles of biomechanics while setting up individualized treatment protocols. Following are the topics to be included but not limited to:						

Course Outcomes	
CO1	Students must know about the concepts fundamental of mechanics and its implementation on human body.
CO2	Students must know about the concepts kinematics and kinetics and its implementation on human body.
CO3	Students must know about the concepts joint mechanics and its implementation on human body.
CO4	Students must know about the concepts Muscles, Ligament & Tendon Mechanics and its implementation on human body.
CO5	Students must know about the concepts measurement instruments and its implementation on human body.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Kinematics and introduction to kinetics	1. Description of motion 2. Introduction to forces 3. Introduction to statics & dynamic 4. Translatory Motion in force system Mechanical Energy, Work & Power	8	CO1
2	KINETICS	1. Moment of force 2. Muscle force 3. Lever system 4. Force components	8	CO2
3	JOINT MECHANICS	Joints and its classification, Joint Design, Joint Categories, Joint Functions, Kinematics: Arthrokinematics, Osteokinematics, Kinematic Chain, Joint Forces, Equilibrium & Distribution of These Forces, Degenerative Changes in Weight Bearing Joints & Compensatory Actions, Joint Stability, Static and Cyclic Load Behaviors, Load Sharing and Load Transfer & Its Mechanisms, Clinical Applications.	8	CO3
4	MUSCLES, LIGAMENT & TENDON MECHANICS	Structure & Composition of Muscle, Fiber Length & Cross Section Area, Mechanical Properties, Changes in Mechanical Properties because of Aging and Exercised & Immobilization, Clinical Applications of mechanics. Structure and Composition, Mechanical Properties, Muscle Tendon Properties, Temperature Sensitivity, Changes in Mechanical Properties because of Aging, Exercise and Immobilization, Mechanoreceptors, & Clinical Applications.	8	CO4
5	MEASUREMENT INSTRUMENTS	Goniometer, Accelerometer, Photo Optical Devices, Pressure Transducers & Force Plate system, Posture analysis device and software, Gait Analyzer, Isokinetic Device, EMG, Electrophysiology of Muscle Contraction, Recording Processing, Relationship between EMG and Biomechanical Variables.	8	CO5

Reference Books:

1. Biomechanics & Clinical Kinesiology-Cynthia Norkin
2. Basic Biomechanics. Nordins.
3. Basic Biomechanics & clinical Kinesiology. Otis
4. Biomechanics of Human Movement. D Winter
5. Kinesiology: Application to Pathological Motion. GL Soderberg
6. Brunnstrom's Clinical Kinesiology. LK Smith, EL Weiss, LD Lehmkuhl

e-Learning Source:

1. https://www.youtube.com/watch?v=yoY9bYQOX8Q
2. https://www.youtube.com/watch?v=WoJyS7Nww38
3. https://www.youtube.com/watch?v=5LAmgw2tVDo
4. https://www.youtube.com/watch?v=JS06rSzWsYM
5. https://www.youtube.com/watch?v=rxX6Z1rv7TE

	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	1	1	1	1	1	2	2	-	-	-	-	3	1	1	2	1
CO2	3	3	2	2	2	2	2	2	-	-	-	-	3	1	1	2	1
CO3	2	3	3	1	2	2	1	1	-	-	-	-	3	3	2	2	1
CO4	3	3	3	1	2	2	1	1	-	-	-	-	3	3	2	2	1
CO5	3	2	3	3	2	2	2	3	-	-	-	-	3	3	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.
PT508	**BIOMECHANICS AND KINESIOLOGY-I**	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	**3,4,9**

Integral University, Lucknow

Effective from Session: 2015-2016							
Course Code	**PT509S**	**Title of the Course**	**PHYSIOTHERAPY-I** (PRINCIPLES AND PRACTICE IN SPORTS PHYSIOTHERAPY)	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	3	1	0	4
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will learn about evaluation, examination and management of sport personals.						

Course Outcomes	
CO1	Evaluation & Examination: Students will understand about evaluation and examination of athlete fitness
CO2	Management of Sports Condition: Student will understand about management of different sports condition and sports specific management
CO3	Manual Therapy Techniques In Rehabilitation: Student will understand about manual therapeutic technique used in sports injuries
CO4	Therapeutic Exercise & Techniques: Student will understand about different techniques exercises and technique used in sports injuries
CO5	Plyometric Exercise and Kinetic-Chain Exercises:

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Evaluation & Examination	1. Importance of evaluation & assessment. **2.** Methods of evaluation- interview, clinical examination, field test, reliability & validity of each test & investigative procedure **3.** Evaluation of physical fitness **4.** Musculoskeletal screening **5.**Pre-participation Exam **6.** On-Field and Off-Field Evaluation Process	8	CO1
2	Management Of Sports Condition	Rehabilitation of Shoulder, Elbow, Wrist, Fingers, Hip, Groin, Thigh, Knee, Lower Leg, Ankle, chest, abdomen and spine-1. Functional Anatomy and Biomechanics 2.Rehabilitation Techniques 3.Rehabilitation Techniques for Specific Injuries	8	CO2
3	Manual Therapy Techniques In Rehabilitation	1.Joint Mobilizations2. Sports Massage 3. Proprioceptive Neuromuscular Facilitation Techniques 4. Rationale for Use of Mobilization, Traction, and PNF Techniques 5.Manipulation and soft tissue release	8	CO3
4	Therapeutic Exercise & Techniques	1. Restoring Range-of-Motion and Improving Flexibility. A. Importance of Flexibility and Rom. Anatomical Factors that Limit Flexibility. Neurophysiologic Basis of Stretching **2.** Strength and Isokinetic **A.** Types of Skeletal Muscle Contraction and Physiology of Strength development **B.** Factors that Determine Levels of Muscular Strength, Endurance, and Power. **C.** Resistance Training Differences between Male &Female and between Child & Adult. 3.Aquatic, Cardiorespiratory Endurance, and Functional Progression. A. Training Effects on the Cardiorespiratory System B. Physical Properties and Resistive Forces in Aquatic Therapy. C. Role and Benefits of Using Functional Progressions and Exercises. D. Advantages and Disadvantages of Aquatic, Cardiorespiratory, endurance, and Functional Progression	8	CO4
5	Plyometric Exercise and Kinetic-Chain Exercises	Plyometric Exercise and Open-Kinetic-Chain versus Closed-Kinetic-Chain, Exercises-1. Biomechanical and Physiological Principles of Plyometric Training 2.Plyometric Program Guidelines, Precautions, Development, Design, and Implementation 3. Concept of the Kinetic Chain 4. Biomechanics of Open- versus Closed-Kinetic Chain Activities for both the Lower and Upper Extremity.	8	CO5

Reference Books:

1. Prentice, William E., Rehabilitation Techniques in Sports Medicine, St. Louis: McGraw Hill Publishing Company.

2. Gray, Gary W., Lower Extremity Functional Profile, 1st Edition, Adrian, MI: Wynn Marketing.

3. Prentice, W. "Therapeutic Modalities for Allied Health Professionals" McGraw Hill.

4. Norkin& White: Measurement of Joint Motion - A Guide to Goniometry - F.A.Davis.

5. Dvir: Isokinetics: Muscle Testing, Interpretation and Clinical Applications, W.B. Saunders.

e-Learning Source:

1. https://www.researchgate.net/publication/278786039_'Shin_Splints'_-_Medial_Tibial_Stress_Syndrome_A_Review_of_the_Literature
2. https://www.researchgate.net/publication/7535422_Sports_massage_A_comprehensive_review
3. https://www.weber.edu/wsuimages/employeewellness/Resistance%20Training.pdf

	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	3	3	2	1	1	-	-	-	-	-	3	3	3	2	1
CO2	1	3	3	3	3	2	3	2	2	-	-	-	2	3	2	1	3
CO3	1	3	3	3	3	2	3	3	1	-	1	-	3	2	2	1	3
CO4	1	3	3	3	3	2	3	3	1	-	1		3	2	2	1	3
CO5	1	3	3	3	3	2	3	3	1	-	1		3	2	2	1	3

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
PT509S	PHYSIOTHERAPY-I S	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	3,4,17

Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	**PT510**	**Title of the Course**	**BIOMECHANICS AND KINESIOLOGY-I LAB**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	0	0	2	1
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will be able to identify and apply principles of biomechanics while setting up individualized treatment protocols. Following are the topics to be included but not limited to. This involves application of topics in demonstrations, field visits and case presentations						

Course Outcomes	
CO1	Students must know about the concepts fundamental of mechanics and its implementation on human body.
CO2	Students must know about the concepts kinematics and kinetics and its implementation on human body.
CO3	Students must know about the concepts joint mechanics and its implementation on human body.
CO4	Students must know about the concepts Muscles, Ligament & Tendon Mechanics and its implementation on human body.
CO5	Students must know about the concepts measurement instruments and its implementation on human body.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	FUNDAMENTAL MECHANICS	Practical Demonstration of fundamental mechanics & their application in human body.	6	CO1
2	KINEMATICS & KINETICS	Practical Demonstration of kinematics & kinetics & their application in human body.	4	CO2
3	JOINT MECHANICS	Practical Demonstration of joint mechanics & their application in human body.	4	CO3
4	MUSCLES, LIGAMENT & TENDON MECHANICS	Practical Demonstration of muscles, ligament & tendon mechanics & their application in human body.	6	CO4
5	MEASUREMENT INSTRUMENTS	Practical Demonstration of measurement instruments used in biomechanical aspects & their application in human body.	4	CO5

Reference Books:

Reference Books:

1. Biomechanics & Clinical Kinesiology-Cynthia Norkin
2. Basic Biomechanics. Nordins.
3. Basic Biomechanics & clinical Kinesiology. Otis
4. Biomechanics of Human Movement. D Winter
5. Kinesiology: Application to Pathological Motion. GL Soderberg

e-Learning Source:

1. https://www.youtube.com/watch?v=yoY9bYQOX8Q
2. https://www.youtube.com/watch?v=WoJyS7Nww38
3. https://www.youtube.com/watch?v=rxX6Z1rv7TE

	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	2	1	1	1	1	2	1	-	-	-	-	3	1	1	1	1
CO2	3	3	2	1	2	2	1	2	-	-	-	-	2	1	1	2	1
CO3	2	3	3	1	2	2	1	1	-	-	-	-	3	3	2	2	1
CO4	2	3	2	1	2	2	2	1	-	-	-	-	2	3	2	2	1
CO5	2	2	3	3	2	3	2	3	-	-	-	-	2	3	2	1	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	
PT510	BIOMECHANICS AND KINESIOLOGY-I LAB	√	√	√			√	√	**3,4,9**

Integral University, Lucknow

Effective from Session: 2015-2016							
Course Code	**PT511S**	**Title of the Course**	**PHYSIOTHERAPY-I LAB** (PRINCIPLES AND PRACTICE IN SPORTS PHYSIOTHERAPY)	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	0	0	4	2
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will learn about evaluation, examination and management of sport personals.						

Course Outcomes	
CO1	Evaluation & Examination :Students will understand about evaluation and examination of athlete fitness
CO2	Management of Sports Condition :Student will understand about management of different sports condition and sports specific management
CO3	Manual Therapy Techniques In Rehabilitation: Student will understand about manual therapeutic technique used in sports injuries
CO4	Therapeutic Exercise & Techniques :Student will understand about different techniques exercises and technique used in sports injuries
CO5	Plyometrics Exercise And Kinetic-Chain Exercises:

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	EVALUATION & EXAMINATION	Importance of evaluation & assessment. **2.**Methods of evaluation- interview, clinical examination, field test, reliability & validity of each test & investigative procedure **3.** Evaluation of physical fitness **4.** Musculoskeletal screening **5.**Pre-participation Exam **6.** On-Field and Off-Field Evaluation Process	8	CO1
2	MANAGEMENT OF SPORTS CONDITION	Rehabilitation of Shoulder, Elbow, Wrist, Fingers, Hip, Groin, Thigh, Knee, Lower Leg, Ankle, chest, abdomen and spine- 1.Functional Anatomy and Biomechanics 2. Rehabilitation Techniques for Specific Injuries	8	CO2
3	MANUAL THERAPY TECHNIQUES IN REHABILITATION	1. Joint Mobilizations 2. Sports Massage 3. Proprioceptive Neuromuscular Facilitation Techniques 4.Rationale for Use of Mobilization, Traction, and PNF Techniques 5.Manipulation and soft tissue release	8	CO3
4	THERAPEUTIC EXERCISE & TECHNIQUES	Practical demonstration and hand on technique on strength development and flexibility and stretching	8	CO4
5	PLYOMETRICS EXERCISE AND KINETIC-CHAIN EXERCISES	Practical demonstration and hand on technique on CKC and OKC activity and power exercises for athlete	8	CO5

Reference Books:

1. Prentice, William E., Rehabilitation Techniques in Sports Medicine, St. Louis: McGraw Hill Publishing Company.

2. Gray, Gary W., Lower Extremity Functional Profile, 1st Edition, Adrian, MI: Wynn Marketing.

3. Prentice, W. "Therapeutic Modalities for Allied Health Professionals" McGraw Hill.

4. Norkin& White: Measurement of Joint Motion - A Guide to Goniometry - F.A.Davis.

5. Dvir: Isokinetics: Muscle Testing, Interpretation and Clinical Applications, W.B. Saunders.

e-Learning Source:

1. https://www.researchgate.net/publication/278786039_'Shin_Splints'_-_Medial_Tibial_Stress_Syndrome_A_Review_of_the_Literature
2. https://www.researchgate.net/publication/7535422_Sports_massage_A_comprehensive_review
3. https://www.weber.edu/wsuimages/employeewellness/Resistance%20Training.pdf

	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	3	3	2	1	1	-	-	-	-	-	3	3	3	2	1
CO2	1	2	3	2	3	2	3	1	2	-	-	-	2	2	2	1	3
CO3	1	3	2	3	2	2	3	3	1	-	1	-	3	2	2	1	3
CO4	1	3	3	3	3	2	3	3	1	-	1		2	2	2	1	3
CO5	1	3	2	3	3	2	3	2	1	-	1		3	2	2	1	3

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

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
PT511S	PHYSIOTHERAPY-I LAB (S)	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	3,4,17

Integral University, Lucknow

Effective from Session: 2021-22							
Course Code	**PT512**	**Title of the Course**	**SEMINAR ON CLINICAL ISSUES**	**L**	**T**	**P**	**C**
Year	**I**	**Semester**	**II**	0	3	0	3
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	This course will serve as a platform for students to integrate various components of patient management and debate contentious issues in the efficacy of Physiotherapy techniques used in musculoskeletal, neurological, cardiopulmonary, & Sports rehabilitation as well as enhance presentation skills.						

Course Outcomes	
CO1	The students will understand and interpret latest advancements through different technical papers, reports, Journals, Data sheets, books etc
CO2	The students will inculcate the skills for literature survey and will learn to manage resources effectively.
CO3	The students will be able to summarize the recent research and technologies in the form of review and will be able to deliver power pointpresentations on an assigned topic.
CO4	The students will be able to communicate his/her ideas with his peers as audience, which will enhance both oral and written communicationskills.
CO5	The students will be able to create interest to pursue lifelong learning.

SEMINAR PRESENTATION ASSESSMENTN FORM

Name of Student:		**Session:**	
Enrollment Number:		**Date:**	
Name of Subject:	Seminar on Clinical Issues	**Subject code:**	PT512
Topics:			

Criteria	Sub-Criteria	Max. Marks	Marks Obtained
Introduction (Max marks-09)	Use appropriate background information	**03**	
	Has clear statement of purpose	**03**	
	Shows a logical sequence	**03**	
Factual Content (Max marks- 21)	Includes accurate information	**03**	
	Shows up-to-date content	**03**	
	Presents relevant content	**03**	
	Shows in-depth and sufficient details	**03**	
	Addresses all important issues	**03**	
	Is selective	**03**	
	Use of proper English Grammar in the text	**03**	
Presentation Quality (Max marks-06)	Has a good design of presentation (appropriate font, type, size, color, matter per slide etc.)	**03**	
	Has a clear verbal expression and eye contact with audience	**03**	
Response to questions (Max marks-09)	Answers question(s) correctly	**03**	
	Has the ability to think on the spot	**03**	
	Shows an ability to defend content of presentation	**03**	
Time Management (Max. mark-05)	Completes the presentation within allocated time	**05**	
	Total Marks	**50**	

Note: In case of Oral Presentation, each student will be assessed in a 20 minutes time (15 min for presentation & 5 min for discussion) out of 50 marks.

Comments/Suggestions:

(Name and signature of Incharge) **(Head, Physiotherapy)**

EVALUATION OF SEMINAR ON CLINICAL ISSUES PRESENTATION

MPT- Students has to prepare minimum 2 long case and 2 short cases during their seminar presentation during due course of time. The evaluation for internal seminar examination of 100 marks will be distributed:

Cases during clinical posting=**45 marks**.

Viva voce =**50 marks**

Attendance=**5 marks**

	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	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
CO2	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
CO3	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
CO4	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
CO5	3	3	3	3	2	2	3	2	1	3	-	-	3	2	3	3	2

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

Attributes & SDGs Common for all branches / Disciplines

Course Code	Course Title	Attributes							SDGs No.
PT512	SEMINAR ON CLINICAL ISSUES	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√			√	√	**3,4,11**

Integral University, Lucknow

Effective from Session: 2021-22							
Course Code	**PT513**	**Title of the Course**	**CLINICAL POSTING**	**L**	**T**	**P**	**C**
Year	**II**	**Semester**	**III**	0	0	14	7
Pre-Requisite	**Nil**	**Co-requisite**	**Nil**				
Course Objectives	Students will engage in clinical practice in Physiotherapy departments in the musculoskeletal, neurology, cardiopulmonary, sports settings to enhance their clinical skills and apply contemporary knowledge gained during teaching sessions.						

Course Outcomes	
CO1	To learn the punctuality and interaction with colleague and supporting staff during clinical training.
CO2	To develop assessment skills.
CO3	To develop appropriate treatment protocol.
CO4	To understand the importance of documentation of the case record and case presentation.
CO5	To develop discipline and improve overall quality of clinical work.

CLINICAL POTING ASSESSMENTN FORM

Name of Student:		**Session:**	
Enrolment Number:		**Date:**	
Name of Subject:	Clinical Posting	**Subject code:**	PT513
Topics:			

S. No.	Point to be Considered	Max. Marks	Marks Obtained
1.	Punctuality	5	
2.	Interaction with colleagues and supporting staff	5	
3.	Maintenance of case records	5	
4.	Presentation of case during rounds	5	
5.	Investigation work up	5	
6.	Bedside Manners	5	
7.	Rapport with patients	5	
8.	Treatment approach & technique	5	
9.	Discipline	5	
10.	Overall quality of clinical work	5	
	TOTAL SCORE	**50**	

(Name and signature of Incharge) **(Head, Physiotherapy)**

GUIDELINES FOR CLINICAL TRAINING PROGRAM

The students of Post Graduate Physiotherapy program must spend above mentioned allotted time period in the hospital based clinical training for specified clinical experiences to meet the objectives of the training program. This period of practical and theoretical experience will enable the students to acquire competency and experience to perform as an independent practice and will enable to adjust to the real practical life in different units in the hospital settings.

S.No.	Program Name	Year/Semester	Duration of Training
5.	MPT	Ist Year/ Ist Semester	4 Months
6.		Ist Year/ IInd Semester	4 Months
7.		IInd Year/ 3rd Semester	4 Months
8.		IInd Year/ 4th Semester	4 Months

By the successful completion of this clinical training period, the student is expected to fulfil the objectives of the program and will be examination as given below:

S.No.	Program Name	Year/Semester	Case file	Practical on Case	Voice/Viva	Attendance
5.	MPT	Ist Year/ Ist Semester	20 Marks	25 Marks (1 Long Case and 2 Short Case)	50 Marks	5 Marks
6.		Ist Year/ IInd Semester				
7.		IInd Year/ 3rd Semester				
8.		IInd Year/ 4th Semester				

EVALUATION OF CLINICAL POSTING

MPT- Students has to prepare 1 long case and 2 short cases during their clinical posting. The evaluation for internal clinical examination of 100 marks will be distributed:

Cases during clinical posting=**45 marks**.

Viva voce =**50 marks**

Attendance=**5 marks**

	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	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
CO2	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
CO3	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
CO4	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
CO5	3	3	3	3	2	2	3	2	1	3	-	-	3	2	3	3	2

2- 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	
PT513	**CLINICAL POSTING**	√	√	√			√	√	**3,4,11**