



**INTEGRAL UNIVERSITY, LUCKNOW**  
**INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES**

**DEPARTMENT OF PHYSIOTHERAPY**

**MASTER OF PHYSIOTHERAPY**  
**(MPT)**  
**NEUROLOGY**

**SYLLABUS**

**YEAR/ SEMESTER: II/III**



## Integral University, Lucknow

Effective from Session: 2016-17									
Course Code	PT601	Title of the Course	MANAGEMENT, EDUCATION & PROFESSIONAL ETHICS	L	T	P	C		
Year	II	Semester	III			3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil						
Course Objectives	<p>This course deals with basic issues of management to assist the practitioner in efficiently addressing issues related to the organization and administration of a Physiotherapy Department.</p> <p>The education module of this course will provide students information on improving their teaching skills in the classroom and clinical setting. Educational theory is presented. Students develop and present educational units to audiences that may include Bachelor of Physiotherapy students or peers. It provides the student with an introduction to ethical issues facing physiotherapists. Specific topics include documentation. A variety of current issues affecting the physiotherapy profession are addressed in this course. The science of management is presented as it relates to the essential functions of the business of physiotherapy. Following are the topics to be included but not limited to:</p>								

Course Outcomes	
CO1	The students will understand about basic marketing management.
CO2	The students will understand about hospital administration in various health care setups.
CO3	The students will understand about the Philosophy of Education, curriculum and basic concept of teaching & learning.
CO4	The students will understand about the basics of pedagogy.
CO5	The students will understand about the Rules of Professional Conduct and responsibilities.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	MANAGEMENT	<ol style="list-style-type: none"> <li>1. Management - Functions of Management, Evolution of Management Through Scientific Management Theory, Classical Theory - Systems Approach - Contingency Approach.</li> <li>2. Management Process - Planning, Organization, Direction, Controlling Decision Making</li> <li>3. Introduction to Personal Management - Staffing Recruitment Selection, Performance Appraisal, Collective Bargaining, Discipline, Job Satisfaction</li> <li>4. Quantitative Methods of Management - Relevance of Statistical and / or Techniques in Management.</li> <li>5. Marketing - Market Segmentation, Marketing Research Production Planning Pricing, Channels of Distribution, Promotion, Consumer Behavior, and Licenser</li> <li>6. Total Quality Management- Basis of Quality Management - Acid for Quality Control Quality Assurance Program in Hospitals, Medical Audit, and International Quality Systems.</li> </ol>	8	CO1
2	ADMINISTRATION	Hospital as an Organization - Functions and types of Hospitals selected clinical supportive and ancillary services of a Hospital, Emergency Department, Nursing, Physical Medicine & Rehabilitation, Clinical Laboratory, Pharmacy and Dietary Department. Roles of Physiotherapist, Physiotherapy Director, Physiotherapy Supervisor, Physiotherapy Assistant, Physiotherapy Aide, Occupational Therapist, Home Health Aide, Volunteer. Direct care and Referral Relationships and Confidentially.	8	CO2
3	EDUCATION	<ol style="list-style-type: none"> <li>1. Philosophy of Education and Emerging issues in Education.</li> <li>2. Formal, Informal and Non-Formal Education, Agencies of Education, Current issues and trends in Higher Education (Issue of Quality in Higher Education, Autonomy and Accountability, Privatizations, Professional Development of Teachers, Education of Persons with Disabilities), Need for Educational Philosophy (Some Major Philosophies, Idealism Naturalism, Pragmatism and their Implications for Education).</li> <li>3. Concept of Teaching and Learning: Meaning and Scope of Educational Psychology, meaning and relationship between teaching and learning.</li> <li>4. Curriculum: Meaning and Concept, Basis of Curriculum Formulation Development, Framing Objectives for Curriculum, Process of Curriculum Development and Factors Affecting Curriculum Development, Evaluation of Curriculum.</li> </ol>	8	CO3
4	GUIDANCE AND COUNSELING PLANNING FOR TEACHING CLINICAL EDUCATION	<ol style="list-style-type: none"> <li>1. Guidance and Counseling: Meaning and Concepts of Guidance and Counseling, Principles, Guidance and Counseling Services for Students and Faculty Members, Faculty Development and Development of Personnel for P.T. Services.</li> <li>2. Method and Techniques of Teaching: Lecture, Demonstration, Discussion, Seminar, Assignment, Project and Case Study.</li> <li>3. Planning for Teaching: Bloom's Taxonomy of Instructional Objectives, Writing Instructional Objectives in Behavioral Terms. Unit Planning and Lesson Planning.</li> <li>4. Teaching Aides: Types of Teaching Aides, Principles of Selection, Preparation, and Use of Audio-Visual Aides.</li> <li>5. Clinical Education: Awareness and Guidance to the Common People about Health and Diseases and Available Professional Services, Patient Education, Education of the Practitioners.</li> </ol>	8	CO4
5	LEGAL PROFESSIONAL ETHICAL ISSUES	<ol style="list-style-type: none"> <li>1. The Implications &amp; Conformation to the Rules of Professional Conduct.</li> <li>2. Code of Ethics.</li> <li>3. Legal Responsibility for Their Actions in the Professional Context and Understanding the Physiotherapist's Liability And Obligations In The Case of Medical Legal Action.</li> <li>4. A Wider Knowledge of Ethics Relating to Current Social and Medical Policy in the Provisions of Health Care.</li> <li>5. The Role of the International Health Agencies Such as the World Health Organizations.</li> <li>6. Standards of Practice for Physiotherapists, Current Issues.</li> </ol>	8	CO5

**Reference Books:**

1. Basic Management. Trivedi
2. Market Segmentation Theory. P Cotler
3. Hospital Administration. Sundaran
4. Byelaws of the Delhi Council for Physiotherapy and Occupational Therapy
5. Principles of Education – Soti Shivendra Chandra and Rajendra K. Sharma
6. Philosophical Foundation of Education – Srinibas Bhattacharya
7. Sociological Foundation of Education – Srinibas Bhattacharya
8. Psychological Foundation of Education – Srinibas Bhattacharya

**e-Learning Source:**

1. <https://youtu.be/scZVLCB1aX0>
2. <https://youtu.be/FpQEwbAV3Qw>
3. <https://youtu.be/D6gRTHzE2XQ>

**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	-	-	-	3	2	-	-	1	-	-	2
CO2	-	-	1	-	-	1	-	-	-	3	2	-	-	1	-	-	2
CO3	-	-	1	-	-	1	-	-	-	3	2	-	-	1	-	-	2
CO4	-	-	1	-	-	1	-	-	-	3	2	-	-	1	-	-	2
CO5	-	-	1	-	-	1	-	-	-	3	2	-	-	1	-	-	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	
PT601	MANAGEMENT, EDUCATION & PROFESSIONAL ETHICS	√		√			√	√	3,4,17



## Integral University, Lucknow

<b>Effective from Session: 2023-24</b>							
Course Code	PT602	Title of the Course	BIOMECHANICS AND KINESIOLOGY-II	L	T	P	C
Year	II	Semester	III	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.						

Course Outcomes	
CO1	Students must know about the kinematics and kinetics of upper limb and its Pathomechanics.
CO2	Students will understand about the kinematics and kinetics of lower limb and its Pathomechanics.
CO3	Students will understand about the kinematics and kinetics of axial skeletal and its Pathomechanics.
CO4	Students will able to learn about gait and posture during human body assessment leading to various musculoskeletal disorders.
CO5	Students will understand about the Prescriptions Checkouts & Proper Fittings of orthosis and prosthesis.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	KINESIOLOGY OF UPPER LIMB	Kinematics, Kinetics and Pathomechanics 1. Shoulder 2. Elbow 3. Wrist and Hand	8	CO1
2	KINESIOLOGY OF LOWER LIMB	Kinematics, Kinetics and Pathomechanics 1. Hip 2. Knee. 3. Ankle and Foot	8	CO2
3	KINESIOLOGY OF SPINE	Kinematics, Kinetics and Pathomechanics 1. TMJ 2. Cervical 3. Thoracic 1. Lumbar-sacral.	8	CO3
4	GAIT AND POSTURE	1. Gait Parameter- Kinetic, Kinematic, Time – Space, Pathological Gait –Running, Stair Climbing, Changes in Gait Following Various Surgeries /Diseases / Disorders. 2. Posture- Kinematics, Kinetics and Pathomechanics of Standing, Sitting.	8	CO4
5	BIOMECHANICS OF ORTHOSIS & PROSTHESIS	1. Orthosis of Upper Limb, 2. Orthosis of Lower Limb, 3. Orthosis of Spine, 4. Bioengineering of Prosthesis, Prescriptions Checkouts & Proper Fittings, Biomechanical Principles governing them of Prosthetics, Aids used in Management of Disability.	8	CO5

<b>Reference Books:</b>	
1.	Biomechanics & Clinical Kinesiology-Cynthia Norkin
2.	Basic Biomechanics. Nordin.
3.	Basic Biomechanics & clinical Kinesiology. Otis
4.	Biomechanics of Human Movement. D Winter
5.	Kinesiology: Application to Pathological Motion. GL Soderberg
<b>e-Learning Source:</b>	
1.	<a href="https://www.youtube.com/watch?v=r7_TmKY9I2g">https://www.youtube.com/watch?v=r7_TmKY9I2g</a>
2.	<a href="https://www.youtube.com/watch?v=y2JZEzTG_BI">https://www.youtube.com/watch?v=y2JZEzTG_BI</a>
3.	<a href="https://www.youtube.com/watch?v=6-nSvntEANY">https://www.youtube.com/watch?v=6-nSvntEANY</a>
4.	<a href="https://www.youtube.com/watch?v=cvZaIVARWpk">https://www.youtube.com/watch?v=cvZaIVARWpk</a>
5.	<a href="https://www.youtube.com/watch?v=0vvp9cCVNI">https://www.youtube.com/watch?v=0vvp9cCVNI</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	3	3	2	2	2	2	1	2	1	-	-	-	3	3	2	2
CO2	3	3	2	2	2	2	1	2	1	-	-	-	3	3	2	2	2
CO3	3	3	2	2	2	2	1	2	1	-	-	-	3	3	2	2	2
CO4	3	3	2	2	2	2	1	2	1	-	-	-	3	3	2	2	2
CO5	3	3	2	2	2	2	1	2	1	-	-	-	3	3	2	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		
PT602	BIOMECHANICS AND KINESIOLOGY-II	√	√	√				√	√	3,4,9



## Integral University, Lucknow

**Effective from Session: 2023-24**

<b>Course Code</b>	<b>PT603N</b>	<b>Title of the Course</b>	<b>PHYSIOTHERAPY –II</b> (NEUROLOGICAL SPECIFIC PHYSICAL THERAPY AND REHABILITATION)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	After a review of the latest theories of motor control, motor learning, and recovery of function, students are provided with a conceptual framework for clinical practice and a practical framework for understanding and examining impairments in patients with neurological deficits. Armed with a solid foundation, students then build a thorough understanding of motor control issues as they relate to posture and balance, mobility, and upper extremity function. For each of these three key areas, the authors discuss normal control processes, age-related issues, abnormal function, and the clinical applications of current research.						

### Course Outcomes

<b>CO1</b>	Understanding of basic concept regarding various neurological assessments in clinical practice in various setups. Understanding of movement disorders like Parkinson, ataxia and Huntington’s disease. Understanding of motor learning related to balance.
<b>CO2</b>	Understanding of basic theoretical concept behind the management of ALS, MS and Hemiplegia. Understanding of basic concept of gait rehabilitation. Understanding about theoretical & therapeutic concept of various neuro-therapeutic techniques
<b>CO3</b>	Understanding of normal developmental milestone. Understanding of musculoskeletal Development and Adaptation. Understanding of developmental Coordination Disorder. Understanding of differential diagnosis and interventional strategies for pediatric conditions.
<b>CO4</b>	Understanding of health and wellness issues in Geriatrics. Understanding of ageing with dignity and chronic impairments. Understanding of balance and Coordination training in Geriatrics. Understanding of cognitive & perceptual dysfunctions and their impact on Geriatrics rehabilitation.
<b>CO5</b>	Understanding about theoretical & therapeutic concept of various neuro-therapeutic techniques

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	MANAGEMENT OF MOVEMENT DISORDER	<ol style="list-style-type: none"> <li>1. Parkinson’s disease.</li> <li>2. Huntington’s chorea, Wilson’s disease.</li> <li>3. Movement Dysfunction Associated with Cerebellar Problems.</li> <li>4. Balance and Vestibular Dysfunction.</li> <li>5. Motor Learning Concepts In Balance Retraining Techniques.</li> </ol>	8	CO1
2	MANAGEMENT OF CLINICAL PROBLEMS	<ol style="list-style-type: none"> <li>1. Multiple Sclerosis.</li> <li>2. Amyotrophic Lateral Sclerosis.</li> <li>3. Demyelinating Inflammatory Poly-radiculoneuropathy.</li> <li>4. Hemiplegia.</li> <li>5. Paraplegia</li> </ol>	8	CO2
3	MOTOR PERFORMANCE IN CHILDREN	<ol style="list-style-type: none"> <li>1. The Child's Development of Functional Movement</li> <li>2. Musculoskeletal Development and Adaptation</li> <li>3. Developmental Coordination Disorder.</li> <li>4. Physical Fitness during Childhood.</li> <li>5. Clinical Decision making in pediatric physical therapy</li> <li>6. Cerebral Palsy &amp; Myelodysplasia</li> </ol>	8	CO3
4	MOTOR PERFORMANCE IN GERIATRICS	<ol style="list-style-type: none"> <li>1. Health and wellness issues in Geriatrics.</li> <li>2. Ageing with dignity and chronic impairments.</li> <li>3. Intervention for depression and fear of fall.</li> <li>4. Balance and Coordination training in Geriatrics.</li> <li>5. Cognitive &amp; perceptual dysfunctions and their impact on Geriatrics rehabilitation.</li> </ol>	8	CO4
5	FUNDAMENTALS OF THERAPEUTIC APPROACHES	<ol style="list-style-type: none"> <li>1. Proprioceptive Neuromuscular Facilitation (PNF).</li> <li>2. Neurodevelopment therapy (NDT).</li> <li>3. Sensory integration Technique (SIT).</li> <li>4. Motor Relearning Program (MRP).</li> <li>5. Constraint Induced Movement Therapy (CIMT)</li> <li>6. Roods approach</li> <li>7. Vojta Therapy</li> <li>8. Mental imagery technique</li> </ol>	8	CO5

### Reference Books:

1. Physical Therapy For Children By Suzann K. Campbell
2. Neurological rehabilitation by Darcy a. Umphred
3. Motor Control. Theory and Practical Applications. AS Cook, M Woollacott
4. A Motor Relearning Programme for Stroke. J Carr. R Shepherd
5. Motor Control and Learning. A Behavioral Emphasis. R A Schmidt

### e-Learning Source:

1. <https://www.youtube.com/watch?v=gzZhcf9gjTA>
2. <https://www.youtube.com/watch?v=z-cARP6He4c>
3. <https://www.youtube.com/watch?v=2S-D7GdBLyw>
4. <https://www.youtube.com/watch?v=F8uLqba82IY>
5. <https://www.youtube.com/watch?v=V31IkMrSk5U>

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	3	2	2	1	-	1	1	3	3	1	2	1
CO2	1	3	3	3	2	3	2	2	1	-	1	1	3	3	1	2	1
CO3	3	3	2	2	2	2	1	1	1	-	1	1	3	3	2	2	2
CO4	3	3	2	2	2	2	1	1	1	-	1	1	3	3	2	2	2
CO5	1	3	3	3	3	2	3	3	2	-	-	-	2	3	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	
PT603N	PHYSIOTHERAPY –II (N)	√	√	√			√	√	3,4



## Integral University, Lucknow

<b>Effective from Session: 2023-24</b>							
<b>Course Code</b>	<b>PT604</b>	<b>Title of the Course</b>	<b>BIOMECHANICS AND KINESIOLOGY-II LAB</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	Students will be able to identify and apply principles of biomechanics while setting up individualized treatment protocols.						

Course Outcomes	
<b>CO1</b>	Students must know about the practical aspect of kinematics and kinetics of upper limb and its Pathomechanics.
<b>CO2</b>	Students will understand about practical aspect of the kinematics and kinetics of lower limb and its Pathomechanics.
<b>CO3</b>	Students will understand about the practical aspect of kinematics and kinetics of axial skeletal and it's Pathomechanics.
<b>CO4</b>	Students will able to learn about practical aspect of gait and posture during human body assessment leading to various disorders.
<b>CO5</b>	Students will understand about the practical aspect of Prescriptions Checkouts & Proper Fittings of orthosis and prosthesis.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	KINESIOLOGY OF UPPER LIMB	Practical demonstration of Arthrokinematic of following joints: 1. Shoulder 2. Elbow 3. Wrist and Hand	8	CO1
2	KINESIOLOGY OF LOWER LIMB	Practical demonstration of Arthrokinematic of following joints: 1. Hip 2. Knee. 3. Ankle and Foot	8	CO2
3	KINESIOLOGY OF SPINE	Practical demonstration of Arthrokinematic of following regions: 1. TMJ 2. Cervical 3. Thoracic 2. Lumbar-sacral.	8	CO3
4	GAIT AND POSTURE	Practical demonstration of following: 1. Gait Parameter- Kinetic, Kinematic, Time – Space, Pathological Gait –Running, Stair Climbing, Changes in Gait Following Various Surgeries /Diseases / Disorders. 2. Posture- Standing, Sitting, Pathokinesiology	8	CO4
5	BIOMECHANICS OF ORTHOSIS & PROSTHESIS	Practical demonstration of following: 1. Orthosis of Upper Limb, 2. Orthosis of Lower Limb, 3. Orthosis of Spine, 4. Bioengineering of Prosthesis, Prescriptions Checkouts & Proper Fittings, Biomechanical Principles governing them of Prosthetics, Aids used in Management of Disability.	8	CO5

<b>Reference Books:</b>																	
1. Biomechanics & Clinical Kinesiology-Cynthia Norikin																	
2. Basic Biomechanics. Nordin.																	
3. Basic Biomechanics & clinical Kinesiology. Otis																	
4. Biomechanics of Human Movement. D Winter																	
5. Kinesiology: Application to Pathological Motion. GL Soderberg																	
<b>e-Learning Source:</b>																	
6. <a href="https://www.youtube.com/watch?v=r7_TMkY9l2g">https://www.youtube.com/watch?v=r7_TMkY9l2g</a>																	
7. <a href="https://www.youtube.com/watch?v=y2JZEzTG_BI">https://www.youtube.com/watch?v=y2JZEzTG_BI</a>																	
8. <a href="https://www.youtube.com/watch?v=6-nSvntEANY">https://www.youtube.com/watch?v=6-nSvntEANY</a>																	
9. <a href="https://www.youtube.com/watch?v=cvZaIVARWpk">https://www.youtube.com/watch?v=cvZaIVARWpk</a>																	
10. <a href="https://www.youtube.com/watch?v=0vvpn9cCVNI">https://www.youtube.com/watch?v=0vvpn9cCVNI</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
<b>CO1</b>	3	2	1	2	2	2	1	3	2	-	-	-	3	2	3	2	2
<b>CO2</b>	3	2	3	2	3	2	2	2	1	-	-	-	3	3	2	2	2
<b>CO3</b>	2	2	2	2	3	3	1	2	1	-	-	-	3	3	2	2	2
<b>CO4</b>	3	3	3	3	2	2	1	2	1	-	-	-	3	3	2	2	2
<b>CO5</b>	3	2	2	3	2	2	1	3	2	-	-	-	3	3	2	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		
PT604	BIOMECHANICS AND KINESIOLOGY-II LAB	√	√	√				√	√	3,4



## Integral University, Lucknow

<b>Effective from Session: 2023-24</b>							
<b>Course Code</b>	<b>PT605N</b>	<b>Title of the Course</b>	<b>PHYSIOTHERAPY –II LAB</b> (NEUROLOGICAL SPECIFIC PHYSICAL THERAPY AND REHABILITATION)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	Students will be instructed via demonstrations, hands-on techniques, field visits and case conferences on specific techniques used in management of patients with neurological disorders. Students will draw on their experiences at the clinical postings to formulate a treatment plan for cases presented at the case conference.						

Course Outcomes	
<b>CO1</b>	Understanding of basic practical aspect concept regarding various neurological assessments in clinical practice in various setups. Understanding of practical aspect of movement disorders like Parkinson, ataxia and Huntington's disease. Understanding of motor learning related to balance.
<b>CO2</b>	Understanding of basic practical aspect of the concept behind the management of ALS, MS and Hemiplegia. Understanding of basic practical aspect concept of gait rehabilitation. Understanding about theoretical & therapeutic concept of various neuro-therapeutic techniques
<b>CO3</b>	Understanding of practical aspect of normal developmental milestone. Understanding of musculoskeletal Development and Adaptation. Understanding of developmental Coordination Disorder. Understanding of differential diagnosis and interventional strategies for pediatric conditions.
<b>CO4</b>	Understanding of practical aspect of the health and wellness issues in Geriatrics. Understanding of ageing with dignity and chronic impairments. Understanding of balance and Coordination training in Geriatrics. Understanding of cognitive & perceptual dysfunctions and their impact on Geriatrics rehabilitation.
<b>CO5</b>	Understanding about practical aspect & therapeutic concept of various neuro-therapeutic techniques

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	MANAGEMENT OF MOVEMENT DISORDER	In the practical aspect students must know about the Parkinson's disease. Huntington's Chorea, Wilson's disease. Movement Dysfunction Associated with Cerebellar Problems. Balance and Vestibular Dysfunction. Motor Learning Concepts In Balance Retraining Techniques.	8	CO1
2	MANAGEMENT OF CLINICAL PROBLEMS	In the practical aspect students must know about the Multiple Sclerosis. Amyotrophic Lateral Sclerosis. Demyelinating Inflammatory Poly radiculo neuropathy, Hemiplegic, Paraplegia	8	CO2
3	MOTOR PERFORMANCE IN CHILDREN	In the practical aspect students must know about the The Child's Development of Functional Movement, Musculoskeletal Development and Adaptation Developmental Coordination Disorder. Physical Fitness during Childhood. Clinical Decision making in pediatric physical therapy, Cerebral Palsy & Myelodysplasia	8	CO3
4	MOTOR PERFORMANCE IN GERIATRICS	In the practical aspect students must know about the Health and wellness issues in Geriatrics, Ageing with dignity and chronic impairments, Intervention for depression and fear of fall. Balance and Coordination training in Geriatrics. Cognitive & perceptual dysfunctions and their impact on Geriatrics rehabilitation.	8	CO4
5	FUNDAMENTALS OF THERAPEUTIC APPROACHES	In the practical aspect students must know about the Proprioceptive Neuromuscular Facilitation (PNF), Neurodevelopment therapy (NDT). Sensory integration Technique (SIT). Motor Relearning Program (MRP). Constraint Induced Movement Therapy (CIMT). Roods approach, Vojta Therapy, Mental imagery technique.	8	CO5

**Reference Books:**

1. Physical Therapy For Children By Suzann K. Campbell
2. Neurological rehabilitation by Darcy a. Umphred
3. Motor Control. Theory and Practical Applications. AS Cook, M Woollacott
4. A Motor Relearning Programme for Stroke. J Carr. R Shepherd
5. Motor Control and Learning. A Behavioral Emphasis. R A Schmidt

**e-Learning Source:**

1. <https://www.youtube.com/watch?v=gzZhcf9gjTA>
2. <https://www.youtube.com/watch?v=z-cARP6He4c>
3. <https://www.youtube.com/watch?v=2S-D7GdBLyw>
4. <https://www.youtube.com/watch?v=F8uLqba82IY>

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	2	3	2	2	1	-	1	1	3	3	1	2
CO2	1	3	3	3	2	3	2	2	1	-	1	1	3	3	1	2	1
CO3	3	2	2	2	3	2	1	1	1	-	1	1	3	3	2	2	2
CO4	3	2	2	3	2	2	1	1	1	-	1	1	3	3	2	2	2
CO5	1	3	3	3	3	2	3	3	2	-	-	-	2	3	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		
PT605N	PHYSIOTHERAPY –II LAB (N)	√	√	√				√	√	3,4





## Integral University, Lucknow

<b>Effective from Session: 2021-22</b>							
<b>Course Code</b>	PT606	<b>Title of the Course</b>	SEMINAR ON CLINICAL ISSUES	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	0	3	0	3
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	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	
<b>CO1</b>	The students will understand and interpret latest advancements through different technical papers, reports, Journals, Data sheets, books etc
<b>CO2</b>	The students will inculcate the skills for literature survey and will learn to manage resources effectively.
<b>CO3</b>	The students will be able to summarize the recent research and technologies in the form of review and will be able to deliver power point presentations on an assigned topic.
<b>CO4</b>	The students will be able to communicate his/her ideas with his peers as audience, which will enhance both oral and written communicationskills.
<b>CO5</b>	The students will be able to create interest to pursue lifelong learning.

### SEMINAR PRESENTATION ASSESSMENTN FORM

<b>Name of Student:</b>		<b>Session:</b>	
<b>Enrollment Number:</b>		<b>Date:</b>	
<b>Name of Subject:</b>	Seminar on Clinical Issues	<b>Subject code:</b>	PT606
<b>Topics:</b>			

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	
<b>Total Marks</b>		<b>50</b>	

**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
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
PT606	SEMINAR ON CLINICAL ISSUES	√	√	√			√	√	3,4,11



## Integral University, Lucknow

<b>Effective from Session: 2021-22</b>							
<b>Course Code</b>	<b>PT607</b>	<b>Title of the Course</b>	<b>CLINICAL POSTING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>7</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	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	
<b>CO1</b>	To learn the punctuality and interaction with colleague and supporting staff during clinical training.
<b>CO2</b>	To develop assessment skills.
<b>CO3</b>	To develop appropriate treatment protocol.
<b>CO4</b>	To understand the importance of documentation of the case record and case presentation.
<b>CO5</b>	To develop discipline and improve overall quality of clinical work.

### CLINICAL POSTING ASSESSMENT FORM

<b>Name of Student:</b>		<b>Session:</b>	
<b>Enrolment Number:</b>		<b>Date:</b>	
<b>Name of Subject:</b>	Clinical Posting	<b>Subject code:</b>	PT607
<b>Topics:</b>			

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	
<b>TOTAL SCORE</b>		<b>50</b>	

(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	
	<b>CO1</b>	2	3	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
<b>CO2</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3	
<b>CO3</b>	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3	
<b>CO4</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3	
<b>CO5</b>	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.	
		Emplo yability	Entrepre neurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics		
<b>PT607</b>	<b>CLINICAL POSTING</b>	√	√	√				√	√	<b>3,4,11</b>



**INTEGRAL UNIVERSITY, LUCKNOW**

**INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES**

**DEPARTMENT OF PHYSIOTHERAPY**

**MASTER OF PHYSIOTHERAPY**

**(MPT)**

**NEUROLOGY**

**SYLLABUS**

**YEAR/ SEMESTER: II/IV**



## Integral University, Lucknow

<b>Effective from Session: 2023-24</b>							
<b>Course Code</b>	<b>PT608N</b>	<b>Title of the Course</b>	<b>PHYSIOTHERAPY- III</b> (NEUROLOGY REHABILITATION & ALTERNATIVE THERAPIES)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	<p>1. After a review of the latest theories of motor control, motor learning, and recovery of function, students are provided with a conceptual framework for clinical practice and a practical framework for understanding and examining impairments in patients with neurological deficits.</p> <p>2. Armed with a solid foundation, students then build a thorough understanding of motor control issues as they relate to posture and balance, mobility, and upper extremity function. For each of these three key areas, the authors discuss normal control processes, age-related issues, abnormal function, and the clinical applications of current research.</p>						

Course Outcomes	
<b>CO1</b>	Understanding and importance of documentation, clinical reasoning related to the uses of assistive technologies in various neurological condition.
<b>CO2</b>	Understanding about theoretical concept of postural control in rehabilitations.
<b>CO3</b>	Understanding about theoretical concept of mobility control in rehabilitations
<b>CO4</b>	Understanding and importance of reach, grasp & manipulation in rehabilitations.
<b>CO5</b>	Understanding about role of alternative techniques in rehabilitation.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	ASSISTIVE TECHNOLOGY IN NEUROLOGICAL POPULATION	ASSISTIVE TECHNOLOGY IN NEUROLOGICAL POPULATION: Assistive Technology in neurological population with special focus on Spinal cord injury- paraplegia & quadriplegia, Hemiplegia Cerebral palsy, Motor Neuron diseases, Muscular dystrophies, Traumatic brain injury, Parkinson's disease and nerve injuries.	8	CO1
2	POSTURAL CONTROL	POSTURAL CONTROL: 1. Normal Postural Control 2. Development of Postural Control 3. Aging and Postural Control 4. Abnormal Postural Control 5. Conceptual framework for balance rehabilitation / Postural Control Disorder	8	CO2
3	MOBILITY FUNCTION	MOBILITY FUNCTION: 1. Control of Normal Mobility 2. A Life Span Perspective of Mobility (a) Development of locomotion (b) Locomotion in Older Adults 3. Abnormal Mobility, task-oriented approach of examination for mobility dysfunction 4. Conceptual framework for Mobility Disorder	8	CO3
4	REACH, GRASP, AND MANIPULATION	REACH, GRASP, AND MANIPULATION: 1. Normal Reach, Grasp, and Manipulation 2. Reach, Grasp, and Manipulation: Changes Across the Life Span a. Early development of reach grasp and manipulation b. Changes in older adults 3. Abnormal Reach, Grasp, and Manipulation 4. Conceptual framework for Reach, Grasp, and Manipulation Disorders	8	CO4
5	ALTERNATIVE AND COMPLEMENTARY THERAPIES	ALTERNATIVE AND COMPLEMENTARY THERAPIES: Beyond traditional approaches to intervention in neurological diseases, syndromes and disorders 1. Meditation 2. Mind – body technique: Tai Chi 3. Cranio sacral therapy 4. Electroacupuncture 5. Biofeedback	8	CO5

**Reference Books:**

1. Movement Science by Carr and Shepherd
2. Neurological rehabilitation by DARCY A. UMPHRED
3. Motor Control. Theory and Practical Applications. AS Cook, M Woollacott
4. A Motor Relearning Programme for Stroke. J Carr. R Shepherd
5. Motor Control and Learning. A Behavioral Emphasis. R A Schmidt

**e-Learning Source:**

1. [http://www.di.fc.ul.pt/~tjvg/amc/emgtexting/files/ta\\_tr.pdf](http://www.di.fc.ul.pt/~tjvg/amc/emgtexting/files/ta_tr.pdf)
2. [https://www.researchgate.net/publication/292747102\\_Clinical\\_management\\_of\\_the\\_patient\\_with\\_a\\_postural\\_control\\_disorder](https://www.researchgate.net/publication/292747102_Clinical_management_of_the_patient_with_a_postural_control_disorder)
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6291756/>

4. <https://www.youtube.com/watch?v=EjsiXJ1JS60>  
 5. <https://www.youtube.com/watch?v=BHmW3m6IWDs>

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	3	2	2	1	-	1	1	3	3	1	2	1
CO2	1	3	3	3	2	3	2	2	1	-	1	1	3	3	1	2	1
CO3	3	3	2	2	2	2	1	1	1	-	1	1	3	3	2	2	2
CO4	3	3	2	2	2	2	1	1	1	-	1	1	3	3	2	2	2
CO5	1	3	3	3	3	2	3	3	2	-	-	-	2	3	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
PT608N	PHYSIOTHERAPY- III (N)	√	√	√			√	√	3,4



## Integral University, Lucknow

<b>Effective from Session: 2023-24</b>							
<b>Course Code</b>	PT609N	<b>Title of the Course</b>	<b>PHYSIOTHERAPY- III LAB (NEUROLOGY REHABILITATION &amp; ALTERNATIVE THERAPIES)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	IV	0	0	4	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	<p>1. After a review of the latest theories of motor control, motor learning, and recovery of function, students are provided with a conceptual framework for clinical practice and a practical framework for understanding and examining impairments in patients with neurological deficits.</p> <p>2. Armed with a solid foundation, students then build a thorough understanding of motor control issues as they relate to posture and balance, mobility, and upper extremity function. For each of these three key areas, the authors discuss normal control processes, age-related issues, abnormal function, and the clinical applications of current research.</p>						

Course Outcomes	
CO1	Understanding and importance of documentation, clinical reasoning related to the uses of assistive technologies in various neurological condition.
CO2	Understanding about theoretical concept of postural control in rehabilitations.
CO3	Understanding about theoretical concept of mobility control in rehabilitations.
CO4	Understanding and importance of reach, grasp & manipulation in rehabilitations.
CO5	Understanding about role of alternative techniques in rehabilitation.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	ASSISTIVE TECHNOLOGY IN NEUROLOGICAL POPULATION	PRESCRIPTION AND DEMONSTRATION OF ASSISTIVE TECHNOLOGY WITH SPECIAL FOCUS ON: Paraplegia & quadriplegia, Hemiplegia, upper limb orthosis & splint, lower limb orthosis, spine orthosis.	8	CO1
2	POSTURAL CONTROL	DEMONSTRATION OF: 1. Normal Postural Control 2. Abnormal Postural Control 3. Conceptual framework for balance rehabilitation / Postural Control Disorder	8	CO2
3	MOBILITY FUNCTION	DEMONSTRATION OF: 1. Control of Normal Mobility 2. Abnormal Mobility, task-oriented approach of examination for mobility dysfunction 3. Conceptual framework for Mobility Disorder	8	CO3
4	REACH, GRASP, AND MANIPULATION	DEMONSTRATION OF: 1. Assessment of normal & abnormal Reach, Grasp, and Manipulation 2. Conceptual framework for Reach, Grasp, and Manipulation Disorders	8	CO4
5	ALTERNATIVE AND COMPLEMENTARY THERAPIES	PRESCRIPTION AND DEMONSTRATION OF ALTERNATIVE AND COMPLEMENTARY THERAPIES: 1. Meditation 2. Mind – body technique: Tai Chi 3. Cranio sacral therapy 4. Electroacupuncture 5. Biofeedback	8	CO5

**Reference Books:**

6. Movement Science by Carr and Shepherd
7. Neurological rehabilitation by DARCY A. UMPHRED
8. Motor Control. Theory and Practical Applications. AS Cook, M Woollacott
9. A Motor Relearning Programme for Stroke. J Carr. R Shepherd
10. Motor Control and Learning. A Behavioral Emphasis. R A Schmidt

**e-Learning Source:**

6. [http://www.di.fc.ul.pt/~tjvg/amc/emgtexing/files/ta\\_tr.pdf](http://www.di.fc.ul.pt/~tjvg/amc/emgtexing/files/ta_tr.pdf)
7. [https://www.researchgate.net/publication/292747102\\_Clinical\\_management\\_of\\_the\\_patient\\_with\\_a\\_postural\\_control\\_disorder](https://www.researchgate.net/publication/292747102_Clinical_management_of_the_patient_with_a_postural_control_disorder)
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6291756/>
9. <https://www.youtube.com/watch?v=EjsiXJ1JS60>
10. <https://www.youtube.com/watch?v=BHmW3m6IWDs>

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
	CO1	1	2	3	3	2	2	2	2	1	-	1	1	3	3	1	2
CO2	1	3	2	3	2	3	2	2	1	-	1	1	3	3	1	2	1

<b>CO3</b>	3	3	2	3	2	2	1	2	1	-	1	1	3	3	2	2	2
<b>CO4</b>	3	3	2	2	2	2	1	2	1	-	1	1	3	3	2	2	2
<b>CO5</b>	1	3	2	3	3	2	3	2	2	-	-	-	2	3	2	2	2

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

**Attributes & SDGs Common**

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
<b>PT609N</b>	<b>PHYSIOTHERAPY- III LAB (N)</b>	√	√	√			√	√	<b>3,4</b>



## Integral University, Lucknow

<b>Effective from Session: 2021-22</b>							
<b>Course Code</b>	<b>PT610</b>	<b>Title of the Course</b>	<b>Dissertation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	0	9	0	9
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	The main objective of this course is to develop independence in the research skills and to develop the research interpretation skill. To promote education and research in physiotherapy and provide academic and professional excellence for immediate productivity in hospital, governmental, or clinical settings for an ultimate benefit of society and environment.						

<b>Course Outcomes</b>	
<b>CO1</b>	The students will be able to perform literature review, identify state of the art in that field.
<b>CO2</b>	The students will be able to define the problem and develop synopsis of a defined research problem
<b>CO3</b>	The students will be able to establish a methodology using advanced tools / techniques for solving the problem including project management and finances.
<b>CO4</b>	The students will be able to prepare the research report and its oral demonstrations.
<b>CO5</b>	The students will be gain practical experience in project management in biotechnological industry, be able to use various techniques in contemporary research for project, perform numerical analysis and interpret the results

<b>Name of Student:</b>		<b>Session:</b>	
<b>Enrollment Number:</b>		<b>Date:</b>	
<b>Name of Subject:</b>	<b>Dissertation</b>	<b>Subject code:</b>	PT610
<b>Topics:</b>			

S. No.	Evaluation	Point to be Considered	Max. Marks	Marks Obtained
1.	On the basics of continuous assessment (10 Marks)	Periodic Consultation with Guide	2	
2.		Regular collection of Data with the consultation of guide.	2	
3.		Command of the topic & presentation skill	2	
4.		Methods, analysis, dissuasion and Conclusions	2	
5.		Contribution to knowledge and thesis structure	2	
Review all heading				
1.	On the basics of External Evaluators at the time of End Sem Examination.	Introduction	3	
2.		Aims, objectives & research hypothesis	3	
3.		Review of literature	3	
4.		Material & Methods	3	
5.		Data analysis & results	3	
6.		Discussion, lamination & future study	3	
7.		Conclusion, signification.	3	
8.		Bibliography	3	
9.		Tables, graph, diagram & Annexure (if any) Statistical Analysis Master Chart	3	
10.		The deface of study	3	
<b>Total Score</b>			<b>40</b>	

**Note: Evaluation of Dissertation of MPT-** Students has to prepare oral presentation; each student will be assessed in a 20 minutes time (15 min for presentation & 5 min for discussion). The evaluation of dissertation by external examiner with proper approval of concern authorities. The end semester examination will be 40 marks as external evaluations and 60 marks will be by the internal examiner (continuous assessment):

**Comments/Suggestions:**

(Name and signature of Incharge)

(Head, Physiotherapy)

<b>Course Articulation Matrix: (Mapping of COs with POs and PSOs)</b>																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
	<b>CO1</b>	2	3	3	2	3	2	3	1	2	1	-	-	3	2	3	3
<b>CO2</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
<b>CO3</b>	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
<b>CO4</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
<b>CO5</b>	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
PT610	Dissertation	√	√	√			√	√	<b>3,4,9, 17</b>







## Integral University, Lucknow

<b>Effective from Session: 2021-22</b>							
<b>Course Code</b>	<b>PT612</b>	<b>Title of the Course</b>	<b>CLINICAL POSTING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	0	0	14	7
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>	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	
<b>CO1</b>	To learn the punctuality and interaction with colleague and supporting staff during clinical training.
<b>CO2</b>	To develop assessment skills.
<b>CO3</b>	To develop appropriate treatment protocol.
<b>CO4</b>	To understand the importance of documentation of the case record and case presentation.
<b>CO5</b>	To develop discipline and improve overall quality of clinical work.

### CLINICAL POSTING ASSESSMENT FORM

<b>Name of Student:</b>		<b>Session:</b>	
<b>Enrolment Number:</b>		<b>Date:</b>	
<b>Name of Subject:</b>	Clinical Posting	<b>Subject code:</b>	PT612
<b>Topics:</b>			

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	
<b>TOTAL SCORE</b>		<b>50</b>	

(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
<b>CO1</b>	2	3	3	2	3	2	3	1	2	1	-	-	3	2	3	3	2
<b>CO2</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	2	3	2	3
<b>CO3</b>	3	3	3	3	2	2	3	2	1	3	-	-	3	2	2	2	3
<b>CO4</b>	3	3	3	3	2	2	3	2	1	3	-	-	2	3	2	2	3
<b>CO5</b>	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	
<b>PT612</b>	<b>CLINICAL POSTING</b>	√	√	√			√	√	<b>3,4,11</b>