GANPAT UNIVERSITY										
FACULTY OF HEALTH AND ALLIED SCIENCES										
Program	**Bachelor of Physiotherapy (BPT)**					**Branch**				
Year	**4**					**Version**	1.0.0.0			
Effective from the Academic year		2025-26		**Effective for the batches admitted from**				2022-23		
Course Code	BPT405	**Course Name**		**Professional Practice & Ethics- IV (Professional Practice & Ethics, Administration, Management and Marketing) + Biostatistics & Research Methodology**						
Teaching Scheme Per Year				**Examination Scheme**						
	Th	**Pr**	**Total**	**Marks**	**Internal**	**External**	**Total**	**Duration**	**Internal**	**External**
Hours	38+38	00	76	Theory	20 (10+10)	80 (40+40)	100	Theory	3 hrs	3 hrs
Credit	2+2			Practical	-	-	-	Practical	-	-
Prerequisite	Nil									

COURSE OBJECTIVES

1	To explain and analyze the legal, ethical, and professional responsibilities of physiotherapists across clinical, academic, and research domains to ensure accountability and integrity in practice.
2	To demonstrate and apply administrative and managerial competencies, including budgeting, service planning, and quality assurance, within diverse physiotherapy practice environments.
3	To understand and apply foundational concepts of biostatistics and research methodology to support critical thinking and the advancement of evidence-based physiotherapy practice.
4	To design and justify a research proposal using appropriate methodological frameworks and statistical tools for clinical or community-based physiotherapy research.
5	To evaluate and enhance physiotherapy service quality by utilizing performance indicators, financial planning, and administrative strategies in various healthcare delivery systems.

THEORY SYLLABUS OF PROFESSIONAL PRACTICE & ETHICS- IV

Unit	Content	Hrs.
1	**Professional Ethics** 1.1 Ethical principles in health care services, research, teaching related to physiotherapy. 1.2 Scope of practice as patient manager, consultant, critical inquirer, educator and administrator. 1.3 Rules of professional conduct 1.3.1 Physiotherapy as a profession 1.3.2 Relationship with patients 1.3.3 Relationship at a health care institution i.e. hospital, clinic etc. 1.3.4 Relationship with colleagues and peers 1.3.5 Relationship with medical and other professionals	**14**
2	**Confidentiality and sales** 2.1 Confidentiality and responsibility, Malpractice and negligence, Professional development, Competence and Expertise. 2.2 Sale of goods: personal and professional standards	**2**
3	**Legal aspects:** 3.1 Legal responsibility of physiotherapists for their actions in the Professional context, understanding liability and obligations in case of medico-legal action.	**3**
4	**Management studies** related to local health care organization management & structure, planning, delivery with quality assurance & funding of service delivery, information technology, and career development in physiotherapy.	**2**
5	**Administration principles** based on the goal & functions at a large hospital, set up/domiciliary Services/private clinic/ academics.	**3**
6	**Budget-planning, Time management**	**4**
7	**Performance analysis**- physical structure/ reporting system (manpower, status, functions, quantity & quality of services, turnover, cost-benefit revenue contribution) Setting up therapeutic gymnasium, fitness clinics, cardiac and pulmonary rehab centers.	**5**
8	**ICMR Guidelines** for medical practice and ethics, Principles of ethics, their importance, and Patient written consent and its procedure, and why it is necessary to take, should be added.	**5**
	Total	**38**

THEORY SYLLABUS OF BIOSTATISTICS & RESEARCH METHODOLOGY		
Unit	**Content**	**Hrs.**
1	**Statistics** 1.1 Introduction to statistics in physiotherapy. 1.2 Understanding 'Data' and its types. 1.3 Presentation of various data: tables, graphs and descriptive statistics. 1.4 Measures of central tendencies (CT): mean, median, mode; merits and demerits; when to apply which measure of CT for the given data.	**6**
2	**Measures of dispersion:** 2.1 Range, mean deviation, standard deviation, Coefficient of variance Quartile, decile, percentile	**5**
3	**Testing Hypothesis:** 3.1 Application of normal distribution and its properties. 3.2 Testing of hypothesis (measuring change):one sample with population, comparing two samples (Z test for proportion, difference of two proportion, independent sample 't' test, paired 't' test, chi square test.	**5**
4	**Correlation, ANOVA and ANCOVA:** 4.1 Conceptual understanding of correlation, linear and multiple regression, analysis of variance (ANOVA) 4.2 Analysis of co-variance (ANCOVA). 4.3 Correlation and regression theory and sums.	**5**
5	**Sampling** 5.1 Complete enumeration and sampling methods: random: simple, stratified, cluster, multi stage; nonrandom: snow ball, quota, purposive, convenient. 5.2 Simple statistical analysis through excels.	**5**
6	**What is research? Why research? & Research Design**	**3**
7	**Types of epidemiological studies & measurements of various indications.**	**2**
8	**Possible errors that may generate due to study design & how to overcome them.**	**2**
9	**Journal review:** 9.1 How to read and what to read from journals. 9.2 Role of research in Physiotherapy.	**2**
10	**Research Proposal Writing:** 10.1 Components of research proposal – 10.1.1 Introduction and rationale 10.1.2 Material & methods, 10.1.3 Results 10.1.4 Discussion. 10.2 Where to look for good literature and why. 10.3 The Evidence Based Practice.	**3**
	Total	**38**

COURSE OUTCOME	
CO1	To gain knowledge of the structure and functions of GSCPT, IAP, and regulatory councils in physiotherapy.
CO2	To be able to apply ethical principles, patient confidentiality, and informed consent in clinical decisions.
CO3	To develop understanding of legal responsibilities and medico-legal issues in physiotherapy practice.
CO4	To be able to design basic clinical or community-based research using suitable designs and statistical tools.
CO5	To develop skills to evaluate physiotherapy services through performance indicators, budgeting, and planning in healthcare setups.

COURSE ARTICULATION MATRIX

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2	-	2	1	1	-
CO2	2	2	2	-	-	2	-
CO3	2	2	2	-	1	2	-
CO4	-	1	2	2	-	-	2
CO5	1	2	2	2	2	2	2

"-" No correlation "1" Low "2" Moderate "3" High

STRUCTURE OF QUESTION PAPER- Theory			
Duration: 3 Hours			(Passing marks – 40)
Section – I (40 Marks)	Que. 1 Multiple Choice Question	6 x 01 = 06	All Mandatory
	Que. 2 Very Short Answer	2 x 02 = 04	(Any 2 out of 3)
	Que. 3 Short Answer	4 x 05 = 20	(Any 4 out of 5)
	Que. 4 Long Answer	1 x 10 = 10	(Any 1 out of 2)
Section – II (40 Marks)	Que. 5 Multiple Choice Question	6 x 01 = 06	All Mandatory
	Que. 6 Very Short Answer	2 x 02 = 04	(Any 2 out of 3)
	Que. 7 Short Answer	4 x 05 = 20	(Any 4 out of 5)
	Que. 8 Long Answer	1 x 10 = 10	(Any 1 out of 2)

BOOKS RECOMMENDED

Textbooks

1	Hospitals: Facilities Planning and Management, GD Kunders,. Tata Mc GrawHill, 15th Edition.
2	Hospital Administration, Francis C M, Jaypee Pub.
3	Hospital Planning and Administration, Davies, R and Macaulay, WHO
4	Medical Ethics, C M Francis , Wadsworth Publishing Company, Belmont
5	Research Methods for Clinical Therapists, Carolyn M Hicks, F.A Davis, 5th Edition.
6	Foundations of clinical research: Applications to practices, L.G. Portney, M.P Watkins, F.A Davis
7	Statistics: Theory Methods and Applications, Sancheti and Kapoor, Sultan Chand's sons, 7th Edition.
8	Short Textbook of prosthetics & orthotics R, Chinnathurai Jaypee Publication
9	Research for Physiotherapists, Project design & Analysis, Carolyn M Hicks, Churchill Livingstone
10	Research Methodology - Methods & Techniques, C. R. Kothari, New Age International