

Branch Name:	Bachelor of Physiotherapy
Program Code:	PT101
Course Title:	Professional Practice and Ethics-IV & Biostatistics & Research Methodology
Course Code:	2PT1010405
Pre-requisite Course:	Professional Practice & Ethics – I & II, Basic Mathematics and Formula

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)			Credit	Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical		Theory(T)		Practical(P)		Total Marks
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
1 + 1	-	-	2+2	80(40+40)	20(10+10)	-	-	100

PROFESSIONAL PRACTICE & ETHICS - IV

Course Objectives:

At the end of the course the candidate will be able to

1. Understand the moral values and meaning of ethics.
2. Acquire bedside manners and communication skills in relation with patients, peers seniors and other professionals.
3. Develop psychomotor skills for physiotherapist patient relationship.
4. Develop skill to evaluate and make decision for plan of management based on socio cultural values and referral practice.
5. Develop behavioral skills and humanitarian approach while communicating with patients, relatives, society at large and co-professionals.
6. Develop bedside behavior, respect & maintain patients' confidentiality.
7. Understand the importance of council, its functioning and Act.

Subject Contents:

Sr. No.	Topic	Hours
1	Outlines of Gujarat State Council for Physiotherapists (GSCPT) Act 2011 with more emphasis on formation, functions of council, importance for registration etc. Outline of The Indian Association of Physiotherapists, National Council of Allied and Healthcare Professionals	02
2	Ethical principles in health care services, research, teaching related to physiotherapy.	02
3	Scope of practice as patient manager, consultant, critical inquirer, educator, administrator.	01
4	Rules of professional conduct a) Physiotherapy as a profession b) Relationship with patients c) Relationship at health care institution i.e. hospital, clinic etc. d) Relationship with colleagues and peers e) Relationship with medical and other professionals	05

5	Confidentiality and responsibility	01
6	Malpractice and negligence	02
7	Professional development, competence and expertise	02
8	Sale of goods: personal and professional standards	02
9	Legal aspects: Legal responsibility of physiotherapists for their action in the professional context understanding liability and obligations in case of medico legal action.	02

List of References:

Text Books:

1. CM Francis Medical Ethics Jaypee Wew Delhi.

Reference Books:

1. Code of medical ethics. H. Ludwig & Company.

List of Open Source Software/learning website:

- k-hub.in e library/A single platform for all e resources (K-hub, E Resource)
 - User Name- KB4605VNG
 - Password- BL@69BX!
- knowledgegainer.delnet.in (Delnet, E Resource)
 - User Name-gjspum
 - Password- spu10924

BIOSTATISTICS & RESEARCH METHODOLOGY

COURSE OUTCOMES:

At the end of the course the candidate will be able to:

1. To understand different variables as per their types and should be able to decide on how to treat them differently as per requirement.
2. To understand Differentiate complete enumeration and various forms of sampling (random: simple, stratified, cluster, multi stage; non random: snow ball, quota, purposive, convenient) with understanding of merits and demerits of them.
3. To understand when to apply what test or a measure of central tendency according to the need of the data and objective.
4. To interpret a given output of regression or ANOVA according to the context.

BIOSTATISTICS

Subject Contents:

Sr. No.	Topic	Hours
1	Introduction to statistics in Physiotherapy.	01
2	Understanding 'Data' and its types.	02
3	Presentation of various data: tables, graphs and descriptive statistics.	02
4	Measures of central tendencies (CT): mean, median, mode; merits and demerits; when to apply which measure of CT for the given data.	02
5	Measures of dispersion: range, mean deviation, standard deviation, coefficient of variance.	02

6	Application of normal distribution and its properties.	01
7	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.	02
8	Conceptual understanding of correlation, linear and multiple regression, analysis of variance (ANOVA) and analysis of co-variance (ANCOVA).	04
9	Complete enumeration and sampling methods: random: simple, stratified, cluster, multi stage; non random: snow ball, quota, purposive, convenient.	02
10	Simple statistical analysis through excel.	02

RESEARCH METHODOLOGY

COURSE OUTCOMES:

At the end of the course the candidate will be able to:

1. To understand and differentiate various study design.
2. To understand the need of methodical and regular literature search in research.
3. Plan a study choosing an appropriate design for a given problem according to given objectives.

Subject Contents:

Sr. No.	Topic	Hours
1	What is research? Why research?	01
2	Research Design	02
3	Types of epidemiological studies & measurements of various indications	02
4	Possible errors that may generate due to study design & how to overcome them.	02
5	How to read and what to read from journals.	02
6	Role of research in Physiotherapy.	02
7	Components of research proposal – introduction and rationale, material & methods, results and discussion.	03
8	Where to look for good literature and why.	02
9	The Evidence Based Practice.	02

Text Books:

1. Methods in Bio-statistics by BK Mahajan
2. Research Methodology methods and techniques by C.R Kothari

Reference Books:

1. An introduction to Bio-statistics – A manual for students in health sciences-PSS Sundar Rao
2. Hicks- Research for Physiotherapists, Churchill Livingstone, London.

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Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the general concepts about Ethics in concept of teamwork, role of multi- purpose work.	1 Remembering 2 Understanding
CLO2	Acquire in brief knowledge about various Ethics for gain knowledge & understand the principles of Ethics and their application to a variety of professions.	1 Remembering 2 Understanding
CLO3	List the various types of research design.	2 Understanding 3 Applying 5 Evaluate
CLO4	Acquire basic knowledge of computers that will enable them to understand the application of various research related data.	2 Understanding 3 Applying
CLO5	Learn the concept of measures of dispersion to identify and interpret to research data. Learn the evaluation of normal distribution.	3 Applying 4 Analyzing 5 Evaluate
CLO6	Discuss the Components of research proposal.	1 Remembering 2 Understanding

Mapping of CLOs with Pos & PSOs

Course Learning Outcomes	Program Outcomes (POs)								Program Specific Outcomes (PSOs)							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CLO1	M				M				L					H		
CLO2		M			M					M			M			M
CLO3			L					M			L				M	
CLO4				M								M	M			
CLO5	M				M	L	H								M	
CLO6		M					H		M		M			M		L

H: High, M: Medium, L: Low