

Program Syllabus Booklet

Doctor of Philosophy (Physical Education) (PhD – 781)



Department of Physical Education Guru Kashi University, Talwandi Sabo

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Annexure -1



Program: Doctor of Philosophy in Physical Education (Ph.D.) Program Code: 781 Program Outcomes (PO): The PO for the Doctor of Philosophy in Physical Education (Ph.D.) are as follows:

РО	Statements
PO1	Physical Education knowledge: Apply the knowledge of mathematics, science, Physical fundamentals, and a Physical specialization to the solution of complex Physical problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex Physical problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and Physical sciences.
PO3	Design/development of solutions: Design solutions for complex Physical problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems : Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern Physical and IT tools including prediction and modeling to complex Physical activities with an understanding of the limitations.
PO6	The Sports and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional Physical practice.
PO7	Environment and sustainability: Understand the impact of the professional Physical solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the Physical practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.



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PO10	Communication: Communicate effectively on complex Physical activities with the Physical community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the Physical and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

The Program specific outcomes for the Program Doctor of Philosophy in Physical Education are as follows:

PSO	Statement
PSO 1	Become adept in planning, designing and accomplishing a research project.
PSO 2	Gain expertise in delivering presentations during seminars.
PSO 3	Develop skills to use statistical analysis software for analyzing the data.
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Annexure -2

	Study Scheme													
Sr	Subject	Subject	Type of	(H	ours I Week	Per)	No. of Credit	Interna	Externa	Total Mark				
•	Code	Name	Subjec t T/P	L	Т	Р	s	Marks	l Marks	S				
1	781101	Research Methodolog y and Statistics in Physical Education	Т	4	0	0	4	50	50	100				
2	180104	Research and Publication Ethics	T/P	1	0	2	2	50	50	100				
3	Elective I	1							L .					
4	781102	Recent Advances in Physical Education & Sports	T	4	0	0	4	50	50	100				
5	781103	Seminar	Р	N A	N A	N A	2	100	NA	100				
	Total N	lo. of Credits		1	1		14							
			G	ŀ	~	U	4							



Elective										
Subjects Sr.	Subject Code	Subject Name	Type(HoursofPerSubjectWeek)			No. of Credits	Internal Marks	External Marks	Total Marks	
			T/P	L	LTP					
1	180102	Computer Applications in Research	T/P	1	0	2	2	100	NA	100
2	180105	Statistical Methods	Т	3	0	0	3	50	50	100
3	180106	Technical Writing, Communication Skills and Library and Information Services		3	0	0	3	50	50	100





Annexure -3

Course Name: Research Methodology and Statistics in Physical Education Course Code: 781101

Credits: 04

L T P 4 0 0

Course Outcomes: On successful completion of this course, the students will be able to:

Statement
Understand the need and importance of Research in Physical Education.
Use various data collection methods.
Write research proposals, thesis or dissertation.
Conduct the statistical analysis of basic research investigation.

Course Contents

UNIT-1

Introduction: Method of Research: Meaning, Importance, Characteristics Scientific approach and classification of research. Nature and purpose of research in physical education, qualities of a Good researcher. Need and areas of research in physical education. Basic Applied and Action Research, their relationship and differences. Characteristics, importance and methodology of Action Research. Descriptive Research: Survey, Case study, Philosophical Research. (Non -Laboratory research) Historical Research; meaning Source of Historical Data, Historical Criticism, Importance of Historical study in physical education, General principles of Historical Criticism. (Non Laboratory research) Experimental Research:-Planning the experiments, experiment design, important areas in laboratory research, setting up human performance laboratory. (Laboratory research) Research problem: Its meaning, locating, selection, problem and its formulation, Limitations and delimitations of research problem. Hypothesis: Meaning and Definitions, types, importance characteristics of a good Hypothesis, Presenting the research Hypothesis, Formulation and stating Hypothesis, Testing and evaluation of the Hypothesis. Review to related Literature:-Importance and purpose of the literature review, Source of review of literature and note taking, scanning and skimming. Sampling:-It meaning, importance, aim, sampling techniques, selecting a sample. Ethics in research:- Justification to experiment on



humans, Ethics of research on

children, truth telling and deception in research, right to privacy and confidentiality (audio tapes and video tapes), Responsibility of harmful consequences.

UNIT -II

Tools for collection of data:Questionnaire: Classification, Characteristics, preparing and administering, limitations and benefits of questionnaire. How to construct schedule method, types and characteristics of method Interview: Kinds, Conduct Importance, Advantages and Limitations. Observation: Types characteristics of scientific observation, Tools, Advantage, Limitations, Difficulties in Observation, and Qualities of good observer. Rating Scale: - Types, Limitations, Construction and Advantages, Check List:- Style for constructing check list ,Guide lines on constructing and using a check list. Score Cards:- Characteristics, limitations and Advantages of score cards.

UNIT-III

Research Report:Preparing of research proposal/Synopsis/Agendum. Preparing of research report; research abstract. Difference between Abstract Research/Proposal and Research Report. Format of Research Report (preliminaries, main body and back material). Tables and Figures. Proposal for Research Projects (Major and Minor)

UNIT-IV

Introduction of Statistic: Meaning and Importance of Statistics in Physical Education. Presentation of Data through Graphs and Tables. Types of data (qualitative & quantitative) Measure of central tendency: Mean, Mode and Median. Measure of variability: Range, Mean, Quartile and Standard Deviation. Analysis of variance and covariance: Need for Analysis of Variance Standard deviation or combined samples. One-way Analysis of Variance Need for Analysis of Covariance Application of Analysis of Covariance Partial and multiple correlations: Meaning and limitations of Partial correlation methods Different order of Partial correlation and



its computation Partial Standard Deviation, Meaning of Multiple correlation Computation of various orders of multiple correlations Law of diminishing return and characteristics of multiple

correlations Application of partial and multiple correlations in research. Prediction and factor analysis: Meaning of prediction Two variable regression equations multiple regression equations Factor analysis. Correlation and non-parametric methods: Chi-square, Rank difference method of Correlation, Bi-serial correlation, Phi-coefficient, Contingency coefficient, Curvilinear Relationships Normal Probability Curve: Properties and Uses. Scales: Sigma Scale and Hull Scale. Standard Score: Z score, T Score and Sigma Score.

Text Books-

- Best, J.W., (1971). Research in education. Prentice Hall Inc., Delhi.
- Clarke, H.David, (1985). Research processes in Physical Education Recreation & Health. Prentice Hall Inc., Delhi.
- Thomas Jerry R and Nelson Jack K (1996). *Research Methods in Physical Activity*. Human Kinetics, Champaign.
- Weimer, Jon. (1994). *Research Techniques in Human engineering*. Prentice Hall, New Jersy.
- Sharma, Yoginder. & Prasad (1997). *Physical Education and Research methodology*, Reliance Publishing House, New Delhi.



The mapping of the PO/PSO/CO attainment is as follows:



PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	2	1	-	-	-	1	1	1	2	2	1	2
CO2	3	1	1	2	1	-	-	1	1	1	1	1	2	1	2
CO3	3	1	1	2	2	-	-	1	1	1	1	2	2	1	2
CO4	2	2	1	2	1	-		1	2	2	2	2	1	2	1
Average	2.75	1.5	1	2	1.25			1	1.25	1.25	1.25	1.75	1.75	1.25	1.75

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.



Course Name: Research and Publication Ethics



Course Code: 180104

Credits: 02

L T P 2 0 0

Course Outcomes: On successful completion of this course, the students will be able to:

СО	Statement
CO1	Understand the purpose and value of ethical decision-making
CO2	Follow the rules, issues, options, and resources for research ethics.
CO3	Overview important issues in research ethics, like responsibility for research, ethical
	vetting, and scientific misconduct.
CO4	Acquire skills of presenting arguments and results of ethical inquiries.

Course Contents

UNIT-I

PHILOSOPHY AND ETHICS - Introduction to philosophy:definition, nature and scope, concept, branches. Ethics: definition, moral philosophy, nature of moral judgements and reactions

SCIENTIFICCONDUCT - Ethics with respect to science and research, Intellectual honesty and research integrity, Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP), Redundant publications: duplicate and overlapping publications, salami slicing, Selective reporting and misrepresentation of data

UNIT-II

PUBLICATION ETHICS - Publication ethics: definition, introduction and importance, Best practices / standards setting initiatives and guidelines: COPE, WAME, etc., Conflicts of interest, Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types, Violation of publication ethics, authorship and contributorship, Identification of publication misconduct, complaints and appeals, Predatory publishers and journals

Unit III

OPEN ACCESS PUBLISHING - Open access publications and initiatives, SHERPA/ROMEO online resource to check publisher copyright & self-archiving policies, Software tool to identify predatory publications developed by SPPU, Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

PUBLICATION MISCONDUCT



Group Discussions - Subject specific ethical issues, FFP, authorship, Conflicts of interest, Complaints and appeals: examples and fraud from India and abroad

Software tools - Use of plagiarism software like Turnitin, Urkund and other open source software tools

Unit IV

DATABASES AND RESEARCH METRICS - Databases - Indexing databases, Citation databases: Web of Science, Scopus, etc. **Research Metrics -**Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP,, Cite Score, Metrics: h-index, g-index, i10 index, altmetrics

Suggested Readings-

- Sudhir Gupta and Sushil Kamboj (2020), *Research and Publication Ethics*, Alexis Press LLC, 2020.
- Sandu, Antonio, Frunza, Ana, Unguru, Elena (2018), *Ethics in Research Practice and Innovation*, IGI Global.
- Management Association, Information Resources (2018), *Scholarly Ethics and Publishing: Breakthroughs in Research and Practice*, IGI Global.
- W. Jerjes, R. Hamoudi, C. Hopper(2018), *The Power of Research: Best Practices and Principles in Research Integrity and Publication Ethics,* Kugler Publications.





PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	2	1	-	-	-	1	1	1	2	2	1	2
CO2	3	1	1	2	1	-	-	1	1	1	1	1	2	1	2
CO3	3	1	1	2	2	-	-	1	1	1	1	2	2	1	2
CO4	2	2	1	2	1	-		-1	2	2	2	2	1	2	1
Average	2.75	1.5	1	2	1.25			1	1.25	1.25	1.25	1.75	1.75	1.25	1.75

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.



Course Name: Recent Advances in Physical Education & Sports



Course Code: 781102

Credits: 04

L T P 4 0 0

Course Outcomes: On successful completion of this course, the students will be able to:

CO	Statement
CO1	Identify and comprehend the History, Philosophy and purposes of physical education.
CO2	Elaborate the importance of health fitness and wellness.
CO3	Acknowledge latest innovations in the field of physical education.
CO4	Identify the accreditation policies governing physical education.

Course Contents

UNIT-I

Introduction: Issues dealing with philosophy and purposes of physical Education and sports - Physical education as a discipline, Interdisciplinary approach in Physical education, Olympic Movement and Olympic character: Basic understanding and sanctity of its preamble and statues. Olympic Guidelines and Indian Government view points on administration of Indian, Olympic Associations and Indian Sports Federations, Social Exclusion (Women, challenged groups) despite of Inclusive Policies of Physical Education and Sports in India, Various commissions and committees for physical education and Sports in India, their recommendations and impediments thereof, Comprehensive Sports Policy of India 2007 and National sports development code of India. Role of AIU.

UNIT-II

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Issues Dealing With Health Fitness and Wellness: Role of International bodies namely United Nations, World Health Organization, and UNESCO in the promotion of physical activity for Health, Fitness and Wellness. Role of educational institutions, semi government agencies, Non-government organizations and private/ corporate groups and sectors in the promotion of Health awareness and physical Education/ activity & sports among masses.

UNIT III

Physical education professional issues- accreditation, Certification and nomenclature norms and quality standards of courses in physical education: NAAC,UGC v/s NCTE acts in relation to physical education courses. Physical education ethics and commercialization. Role of International and National Associations of Physical Education and Sports in shaping the profession of physical education.

UNIT-IV

Issue dealing with media, sports industry and marketing: Role of Media in the promotion of



Health, physical education and sports: Print, electronic and social media including internet. Sports industry & marketing in physical education curriculum in India.

Text Books-

- Bucher A Charles and Deborah A Wuest. (1991). *Foundations of Physical Education and Sports*. B.I. Publication Pvt. Ltd., New Delhi.
- Government of India. 34th Report of Rajya Sabha, Secretriate, 1995.
- Government of India. All India council of sports: Agenda Papers, 2003.
- Government of India. Ministry of Youth Affairs and Sports, Department of India, Draft Comprehensive Sports Policy, 2007.
- Government of India. National Sports Development Code of India, Ministry of Youth Affairs and Sports, Department of Sports, 2011.
- Government of India. Programme of Action, National Sports Policy, 1992.

PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	2	1	1	<u> </u>	-	1	4	1	2	2	1	2
CO2	3	1	1	2	1	1		1	-1_	1	1	1	2	1	2
CO3	3	1	1	2	2	1		1	1	1	1	2	2	1	2
CO4	2	2	1	2	1	1	- 4	1	2	2	2	2	1	2	1
Average	2.75	1.5	1	2	1.25	1	~	1	1.25	1.25	1.25	1.75	1.75	1.25	1.75

The mapping of PO/PSO/CO attainment is as follows:

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.

Course Name: Computer Applications in Research



Course Code: 180102

Credits: 02

L T P 1 0 2

Course Outcomes: On successful completion of this course, the students will be able to:

СО	Statement
CO1	Understand the basic computer hardware and software.
CO2	Utilize the applications of computer in physical education.
CO3	Assess and evaluate performance through software.
CO4	Use web technologies to enhance coaching lessons.

Course Contents

UNIT-I

Basics of Computer

Generating Charts/Graphs in Microsoft Excel, Power Point Presentation, Web search, Use of Internet and www. Using search like Google etc.

UNIT-II

SPSS

SPSS concepts and its use for Statistical Analysis.

UNIT-III

MatLab

MatLab and its use for Statistical Analysis.

UNIT-IV

Referencing and anti-plagiarism software

Introduction to the use of LaTeX, Mendeley, Anti-Plagiarism Softwares

Text Books:

• Irtegov, D. (2004). Operating system fundamentals. Firewall Media.



• Milke, M.(2007). Absolute beginner's guide to computer basics. Pearson Education Asia.

The mapping of the PO/PSO/CO attainment is as follows:

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PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	1	1	3	2	1	1	1	2	1	1	1	2	1
CO2	1	1	1	-	2	1	2	1	1	2	1	1	2	2	2
CO3	1	2	1	2	3	2	2	2	1		1	-	1	2	2
CO4	1	1	-	2	3	2	1	24	1	2	-	1	1	2	1
Average	1	1.25	1	2	2.75	1.75	1.5	1	1	2	1	1	1.25	2	1.5

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.

Course Name: Statistical Methods Course Code: 180105



Credits: 02

L T P 1 0 2

Course Outcomes: On successful completion of this course, the students will be able to:

CO	Statement
CO1	Designed, carried out and presented an original work of research at the leading
	edge of the statistics discipline.
CO2	Understand the basic theoretical and applied principles of statistics with
	adequate preparation to pursue a PhD or enter the job force as an applied
	statistician.
CO3	Summarize a technical report and/or statistical analysis and interpret results;
	also, show the ability for broader implication of application in the statistical field.
CO4	Gain proficiency in using statistical software for data analysis.

Course Contents

Unit I

Probability distribution: uniform, binomial, Poisson, geometric, hyper geometric, negative binomial, multinomial, normal, exponential, Cauchy, Gamma, Beta, Weibull, log normal, logistic and Pareto.

Compound and truncated distributions: Central and non-central z, t and F. Bivariate normal. Distribution of quadratic forms and r-the order statistic.

Practical: Random experiments. Moments, Correlation and regression, Fitting of binomial, Poisson, normal, hyper geometric and negative binomial, Truncated binomial and Poisson. Log norms.

The mapping of the PO/PSO/CO attainment is as follows:



PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	1	-	2	2	1	2	1	2	1	1	1	2	2	1
CO2	1	1	1	2	1	2	2	1	1	2	1	-	2	2	1
CO3	1	1	1	2	2	2	2	1	1	-	1	-	3	2	2
CO4	1	1	-	2	1	1		1	2	3	1	1	1	2	1
Average	1.25	1	1	2	1.5	1.5	1.5	1	1.5	2	1	1	2	2	1.25

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.



Course Name: Technical Writing, Communication Skills and Library and Information Services



Course Code: 180106

Credits: 02

L T P 1 0 2

Course Outcomes: On successful completion of this course, the students will be able to:

CO	Statement
CO1	Implement the skill of technical writing
CO2	Develop effective communication skills in day to day life.
CO3	Locate a paper book or e book from a library easily.
CO4	Apply presentation skills in seminars.

Course Contents

Unit I

Theory:

Technical Writing-Various forms of technical writing-theses, technical papers, reviews, electronic communication etc; qualities of technical writing;

Parts of research communications- title page, content page, authorship, preface, introduction, review of literature, materials and methods, experimental results, documentation; photographs and drawings with suitable captions; pagination; citations; writing of abstracts; précis; synopsis; editing and proof reading.



Communication Skills-defining communication; types of communication- verbal and nonverbal; assertive communication; assertive 445 communication; using language for effective communication;

Techniques of dyadic communication- message pacing and message chunking, self disclosure, mirroring, expressing conversational intent; paraphrasing;

Vocabulary building- word roots, prefixes, Greek and Latin roots.

Unit III



Introduction to Library and its services; Five laws of library science; type of documents; classification and cataloguing; organization of documents; sources of information-primary, secondary and tertiary;

Current awareness and SDI services; tracing information from reference sources; library survey; preparation of bibliography; use of Online Public Access Catalogue; use of CD-ROM databases and other computerized library services, CeRA, J-Gate;

Use of Internet including search engines and its resources; e-resources and access methods.

Unit IV

Practical:

Editing and Proof reading technical articles; using language tools for effective writing; listening to audio-video conversations aimed at testing the comprehension of the students;

Oral presentations on a given topic related to agriculture;

Evaluation of body language and communication skills based on group discussions and interviews;

Role plays and pronunciation exercises - Using eye contact and visual clues for effective listening skills; word stress application and voice modulation; Soft skills; rhetoric skills; self-assessment exercises.

PO/PSO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	-	Ē	2	1	2	1	1	2	1	1	2	2	1
CO2	2	1	1	115	1	2	1	V	2	2	1	1	2	2	1
CO3	1	1	1	2	1	2	1	71	1	1	1	-	2	2	2
CO4	1	-	-	2	1	1	2	1	2	2	-	1	2	2	1
Average	1.25	1	1	2	1.25	1.5	1.5	1	1.5	2	1	1	2	2	1.25

The mapping of the PO/PSO/CO attainment is as follows:

The correlation levels are: "1" – Low Correlation, "2" – Medium Correlation, "3" – High Correlation and "-" indicates there is no correlation.



Total Number of Course	06
Number of Theory Course	03
Number of Practical Course	03
Total Number of Credits	12



Annexure-4



ACADEMIC INSTURCTIONS

Attendance Requirements

A student shall have to attend 75% of the scheduled periods in each course in a semester; otherwise he / she shall not be allowed to appear in that course in the University examination and shall be detained in the course(s). The University may condone attendance shortage in special circumstances (as specified by the Guru Kashi University authorities). A student detained in the course(s) would be allowed to appear in the subsequent university examination(s) only on having completed the attendance in the program, when the program is offered in a regular semester(s) or otherwise as per the rules.

Assessment of a course

Each course shall be assessed out of 100 marks. The distribution of these 100 marks is given in subsequent sub sections (as applicable).

	1	Int	External (50)	Total			
Components	Attendance	Assign A1	nment A2	MST1	MST2	ETE	
Weightage	10	10	10	30	30	50	
Average Weightage	10	20.4	0	3	50	50	100

Passing Criteria

The students have to pass both in internal and external examinations. The minimum passing marks to clear in examination is 40% of the total marks.