

# ***SYLLABUS***

(To be effective from the Academic Session 2020-22 onwards)

*for*

**M.Phil. Programme in Geography**

**(CBCS)**

**Revised in PGBS Meeting held on 12.5.2022**




**Department of Geography  
The University of Burdwan  
Golapbag, Burdwan-713104**

**[www.buruniv.ac.in](http://www.buruniv.ac.in)**

**General Program Structure:** The grand total of marks for M.Phil. Programme in Geography shall be 525 marks(42credits) to be distributed as follows:

Year	Semester	Course Code	CourseTitle	Credit Value	Marks Distribution
					Total Marks
1 <sup>st</sup>	SEM I	MPHIL 101	ResearchMet hodology	4	50
		MPHIL 102	Research & Publication Ethics	2	25
		MPHIL 103	Research Methods and Techniques in Geography	4	50
		MPHIL 104	Term Papers andRelated SeminarPresenta tion	4	(25+25)=50
			<b>Sub-total</b>	<b>14</b>	<b>175</b>
	SEM II	MPHIL 201	Philosophical Foundation of Geographical Research	4	50
		MPHIL 202	202A Contemporary ResearchTrends in Physical Geography OR 202B Contemporary Research Trends in Human Geography	4	50
		MPHIL 203	TermPapersand Related SeminarPresenta tion	4	(25+25)=50
				<b>Sub-total</b>	<b>12</b>
			MPHIL 301	Dissertation	12

2 <sup>nd</sup>	SEM II&IV I	MPHIL 401	Vivavoce	4	50
		<b>GRANDTOTAL</b>		<b>42</b>	<b>525</b>

 12.5.22  
**Prof. Biswanjan Misra**  
*Head*  
 Department of Geography  
 The University of Burdwan  
 Golapbag, Purba Bardhaman-713104 (W.B)

## Contents

### Research and Publication Ethics

Course- MPHIL 101.....  
     Research Methodology.....

Course - MPHIL 102.....  
     Research & Publication Ethics.....

Course - MPHIL 103

Research Methods and Techniques in Geography

Course - MPHIL 104.....  
     Term Paper and Seminar Presentation.....

Course r- MPHIL -201.....  
     Philosophical Foundation of Geographical Research.....

Course - MPHIL -202: A (Contemporary Research Trends in Physical Geography)

OR

B (Contemporary Research Trends in Physical Geography)

Course - MPHIL 203.....  
     Term Paper and Seminar Presentation.....

Course - MPHIL 301 Dissertation.....

Course - MPHIL 401 Viva-voce.....

Course - **MPHIL 101**  
**Research Methodology**  
 Total Credit: 4

Time: 2 Hours

Total Marks: 50

Minimum number of lectures for the course is 36.

**Method of Evaluation:** The semester examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

Sl. No.	Topics
1.	Concept, Types and Approaches of Research
2.	Philosophy of Research – Positivist and Post Positivist
3.	Identification of Research Problem, Objectives, Research Questions and Formulation of Hypothesis
4.	Literature Survey and Review, Referencing Style
5.	Types of Empirical Survey – Reconnaissance Survey, Preparation of Questionnaire
6.	Sampling Technique: Random, Stratified Random and Multi-Stage
7.	Relevance of Qualitative, Quantitative and Mixed Methods in Geographical Research
8.	Research Ethics
9.	Report Writing

Course - **MPHIL 102****Research and Publication Ethics**

Total Credit: 2

Time: 1 Hour

Total Marks: 25

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 Minimum number of lectures for the course is 30.

Method of Evaluation:

The semester examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 5 marks.

<b>Unit-1: THEORY</b>
<b>RPE1: PHILOSOPHY AND ETHICS</b>
1. Introduction to philosophy: definition, nature and scope, concept, branches.
2. Ethics: definition, moral philosophy, nature of moral judgements and reactions
<b>RPE2: SCIENTIFIC CONDUCT</b>
1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FPP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data
<b>RPE3: PUBLICATION ETHICS</b>
1. Publication ethics: Definition, Introduction and Importance
2. Best Practices/ Standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflicts of Interest
4. Publication Misconduct: Definition, Concept, Problems that lead to unethical behavior and vice versa, Types
5. Violation of Publication Ethics, Authorship and Contributorship
6. Identification of Publication Misconduct, Complaints and Appeals
7. Predatory Publishers and Journals

<b>Unit-2:PRACTICE</b>
<b>RPE4:OPENACCESSPUBLISHING</b>
1.Openaccess publications andInitiatives
2.SHERPA/RoMEO online resource to check publisher copyright &self-archivingpolicies
3. Softwaretool to identifypredatorypublications developed bySPPU
4.Journal finder/journal suggestion tools viz. JANE, Elsevier Journal finder, SpringerJournalSuggesteretc.
<b>RPE5:PUBLICATIONMISCONDUCT</b>
<b>A.GroupDiscussions</b>
1.Subjectspecificethicalissues,FPP,Authorship
2.ConflictsofInterest
3.ComplaintsandAppeals:ExamplesandFraudfromIndia andAbroad
<b>B.Softwaretools</b>
Useofplagiarism softwarelikeTurnitin,Urkundand otheropen sourcesoftware tools
<b>RPE-6:DATABASESANDRESEARCHMETRICS</b>
<b>A.Databases</b>
1.Indexingdatabases
2.Citationdatabases:WebofScience,Scopus,etc.
<b>B.ResearchMetrics</b>
1.ImpactFactorofJournalas perJournalCitationReport,SNIP,SJR, IPP,CiteScore
2.Metrics: h-index, g-index,i10 index,Almetrics

Course - **MPHIL 103****Research Methods and Techniques in Geography**

Total Credit: 4

Time: 2 Hours

Total Marks: 50

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 Minimum number of lectures for the course is 36.

**Method of Evaluation:** The semester examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

Sl.	Topics
1.	Scaling of data, Data Standardization, Parametric and Non-parametric statistics, Uses and Misuses of Statistics, Descriptive and Inferential Statistics, Analysis of Spread and Shape.
2.	Methods of Sampling with Central Limit Theorem
3.	Hypothesis Testing: Chi Square Test with Contingency Coefficient and Phi Component, t test, z Test, ANOVA Test (One Way, Two Way, Friedman Rank), Mann-Whitney U-Test, Kruskal-Willis Test
4.	Multivariate Analysis: PCA, cat-PCA, CCA, Discriminant Analysis, Dendrogram, Logistic Regression
5.	Qualitative Research: Concept and Relevance
6.	Theoretical Approaches (Phenomenology and Grounded Theory) and Implication of Data Collection
7.	Sampling Techniques: Purposive, Quota and Snowball
8.	Methods of Data Collection: Interview, Focus Group, Observation and Case Study
9.	Geospatial Technique in Geographical Research: Procurement, Selection procedure and Processing of Satellite Imagery
10.	Error Correction of Digital data
11.	Spatial Database Generation and Layout Creation Using Open Source Software
12.	DGPS and TS Survey: Site, Suitability and Application



**Course -MPHIL104**  
**Term Paper and Seminar Presentation**

Total Credit: 4

Total Marks: 50

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**Method of Evaluation:**

**(a) Written Report: 25 Marks**

**(b) Seminar Presentation and Vivavoce: 25 Marks**

The candidate has to prepare a Research Proposal as Term Paper which s/he wants to pursue for M. Phil. Degree. This research proposal should clearly mention the conceptual aspects, the objectives, sources of data/information, possible methodology to be adopted and a comprehensive review of the literature on the particular topic with the existing research gap and relevance of the study.

Text of the Term Paper should be within 8000–10000 words, typed in Times New Roman Font (Size: 12) with 1.5-line spacing on A4 Paper. The left margin should be 2", whereas the top, right and bottom margins should be 1.5". APA Style of Referencing is to be followed for the term paper.

## Course -MPHIL 201

### Philosophical Foundation of Geographical Research

Total Credit: 4

Time: 2 Hours

Total Marks: 50

Minimum number of lectures for the course is 36.

**Method of Evaluation:** The semester examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

Sl.No.	Topics
1	Positivism, Spatial Science Tradition
2	System Approach and Integrated Modelling: Process, Form and Responses
3	Critique of Positivism: Behaviorism and Structuralism
4	Humanistic Geography; Geography of Social Wellbeing
5	Critical Social Theory: Feminism and Post-structuralism
6	Environmentalism: Old and New; Deep Ecology
7	Approaches: Idiographic and Nomothetic; Reductionist and Holistic
8	Post-modern Perspective: Subjectivity, Multiculturalism, Hybridity
9	Theories of Social Justice: Radicalism and Communitarianism

**Course - MPhil 202**

Total Credit: 4

Time: 2 Hours

Total Marks: 50

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 Minimum number of lectures for the course is 36.

**Method of Evaluation:** The semester examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

**Paper- MPhil -202 A****Contemporary Research Trends in Physical Geography**

Sl.No.	Topics
1	Geomorphic Response to Tectonics, and Anthropogenic Interference
2	Climate Change, Climatic and Hydrological Hazards: Adaptation and Resilience
3	Wetland Preservation and Wasteland Development
4	Soil Health and Agriculture
5	Forests and Right to Forest Resources

**OR****Course - MPhil -202B****Contemporary Research Trends in Geography**

Sl.	Topics
1	Water Scarcity and Conflicts
2	Access to Food, Food and Nutritional Security: Political Economy
3	Gender, Ethnicity and Human Rights
4	Restructuring of Urban Space: Economy, Society and Environment
5	Geopolitical Conflict and Human Rights

**Course - MPHIL 203****Term Paper and Seminar Presentation**

Total Credit: 4

Total Marks: 50

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**Method of Evaluation:****(a) Written Report: 25 Marks****(b) Seminar Presentation and Viva voce: 25 Marks**

The M.Phil. candidates have to prepare a Term Paper which will be a comprehensive work based on conceptual aspects, field work, analysis of primary and secondary data, etc. It should clearly mention the conceptual aspects, the objectives, sources of data/information, methodology adopted and the important results. The text of the Term Paper should be within 10000 - 12000 words typed in Times New Roman Font (Size: 12) with 1.5 line spacing on A4 Paper. APA Style of Referencing is to be followed for the term paper.

The Term Paper should be ideally divided into the following sections: Introduction, Statement of the Problem, Objectives, Methodology, Results and Discussion, Conclusion and References (APA).

**Course - MPHIL 301****Dissertation**

Method of Evaluation:

**Written Report: 150 Marks**

**Credits: 12, Marks: 150**

The M.Phil candidates have to prepare a Dissertation which will be a comprehensive work based on conceptual aspects, field work, analysis of primary and secondary data, etc. It should clearly mention the conceptual aspects, literature survey, objective, sources of data/information, methodology adopted and the important results. The text of the Dissertation should be typed in Times New Roman Font (Size: 12) with 1.5 line spacing on A4 Paper. APA Style of Referencing is to be followed for the Dissertation.

**Course - MPhil 401**

## Viva-voce

Method of Evaluation:

**Viva voce: 50**

**Credits:4, Marks: 50**

The M.Phil candidates have to make a presentation (preferably on Powerpoint) on the topic in which he/she has carried out her/his dissertation. S/he has to defend her dissertation in front of all the examiners in an open Viva-Voce

**SUGGESTED**  
**READINGS RESEARCH METH**  
**ODOLOGY**

- Ahuja, R. (2001): Research Methodology, Rawat Publications, Kolkata.
- Das, D.L. (2000): Practice of Social Research. New Delhi: Rawat Publication.
- David, F.E. (2000): Scientific Method For Ecological Research. U.K: Cambridge.
- Gibaldi, J., & Acherter, W. S. (1989): MLA handbook for writers of research papers. New Delhi: Affiliated East West Press Private Limited.
- Harper, C., & Marcus, R. (2007): Research for Development : A practical Guide . New Delhi: Vistaar Publication. Kothari, C.
- (2009): Research Methodology: Methods and Techniques. Kolkata: New Age International Publishers. Misra, H., & Singh, V. (1998): Research Methodology in Geography: Social and Policy Dimension. New Delhi: Rawat Publication.
- Misra, R. (2001): Research Methodology: A handbook. New Delhi: Concept Publishing Company.
- Narasimha Murthy, K.L. (2014): Research Methodology in Geography, Concept Publishing Company, New Delhi.
- Panneerselvam, R. (2009). Research Methodology. Learning private limited.
- Ramesh Babu, G. (2008): Research Methodology in Social Sciences, Concept Publishing Company, New Delhi.
- Ray, G.L. & Mondal, S. (2011): Research Methodology in Social Sciences and Extension Education, Kalyani Publishers, New Dehi.
- Raza, M. (1979). Survey of Research in Geography . Calcutta: Allied Publishers Private Limited. Singh, K. (2007). Quantitative Social Research Methods. New Delhi: Sage Publication.
- Sinha, S.N. & Kotia, B.L. (1994): Research Methodology in Behavioral Science, Concept Publishing Company, New Delhi.
- Somekh, B., & Lewin, C. (2005). Research Methods in the Social Science. New Delhi: Vistaar Publication.

## **RESEARCH METHODS AND TECHNIQUES IN GEOGRAPHY**

- Alvi, Z. (1995): *Statistical Geography: Methods and Applications*, Rawat Publications, New Delhi.
- Anderson, T.W. (2009): *An Introduction to Multivariate Statistical Analysis*, John Wiley & Sons, USA.
- Campbell, J.B. 1996: *Introduction to Remote Sensing*, 2nd edition, Taylor & Francis, London.
- Chaisman, N. 1992: *Exploring Geographical Information Systems*, John Wiley and Sons Inc., New York.
- Fisher, M. and Wang, J. (2011): *Spatial Data Analysis: Models, Methods and Techniques*, Springer.
- Gopi, S. (2007). *Advanced Surveying: Total Station, GIS and Remote Sensing*. Pearson Education India.
- Hennink, M., Hutter, I. and Bailey, A. (2010): *Qualitative Research Methods*, Sage Publications.
- Jensen, J. R. (2009): *Remote sensing of the environment: A earth resource perspective 2/e*. Pearson Education India.
- Jensen, J.R., & Lulla, K. (1987). *Introductory digital image processing: a remote sensing perspective*, Pearson Education, USA.
- Kothari, C. (2009): *Research Methodology: Methods and Techniques*. Kolkata: New Age International Publishers.
- Lillesand, T.M. and Kiefer, R.W. 1994: *Remote Sensing and Image Interpretation*, 3rd edition, John Wiley and Sons, New York.
- Manly, B. (2005): *Multivariate Statistical Methods: A Primer*, Chapman and Hall Publishing, UK.
- Marcolongo, B. A and Mantorani, F. 1997: *Photogeology: Remote Sensing Application in Earth Science*, Oxford and IBH Pub. Pvt. Ltd., New Delhi.
- Mohanty, B. and Misra, S. (2016) *Statistics for Behavioral and Social Sciences*, Sage Publications Pal, S.K. (1999): *Statistics for Geoscientists*, Concept publishing Company, New Delhi.
- Sabins, F.F., 1997: *Remote Sensing: Principles and Applications*, 3rd edition, W.H. Freeman & Company, New York.
- Seale, C., Gobo, G., Gubrium, J.F. & Silverman, D. (2006): *Qualitative Research Practice*, Sage Publications.
- Silk, J. (1979): *Statistical techniques in Geography*, George Allen and Unwin, London.
- Silverman, D. (2016): *Qualitative Research*, Sage Publications.
- Walford, P. (1995): *Geographical Data Analysis*, John Wiley and Sons Inc., New York.



## **PHILOSOPHICAL BASES FOR RESEARCHING GEOGRAPHY**

- Adhikari, S. (1992): Geographical Thought, Chaitanya Publishing House, Allahabad.
- Bunge, W. (1962): Theoretical Geography, Glencoe, London.
- Chorley, R., & Haggett, P. (1965): Frontiers in Geographical Teaching, Oxford University Press, UK.
- Coffey, W. (1981): Geography - Towards a General Spatial System Approach. British Library Cataloguing in Pub. Data, USA.
- Dikshit, R. (2006): Geographical Thought - A Contextual History of Ideas, Prentice Hall of India Private Limited, New Delhi.
- Dunbar, G. (1991): Modern Geography: An Encyclopedic Survey, St. James Press, Chicago.
- Freeman, T. (1971): A Hundred Years of Geography, Gerald Duckworth & Co. Ltd, London.
- Gregory, D., & Walford, R. (1988): Horizons in Human Geography, Macmillan, London.
- Harvey, D. (2003): Explanation in Geography, Rawat Publishing Company, New Delhi.
- Harvey, D. (1979): Social Justice and the City, The Pitman Press, Great Britain.
- Harvey, E., & Holly, B. P. (2002): Themes in Geographical Thought, Rawat Publishing Company, New Delhi.
- Johnston, R. (2000): Geography and Geographers, Oxford University Press, UK.
- Massey, D. (1994): Space, Place and Gender, University of Minnesota Press, USA.
- Moss, P. (2002): Feminist Geography in Practice, Research and Methods, Blackwell Publishing House, UK.
- Murdoch, J. (2006): Post-Structuralist Geography, Sage Publications Limited.
- Peet, R. (2003): Radical Geography, Rawat Publishing Company, New Delhi.
- Smith, D. (1994): Geography and Social Justice, Blackwell Publishing House, UK.
- Soja, E. (2003): Postmodern Geographies, Verso, London.
- Stoddart, D. (1986): On Geography and Its History, Oxford: Basil Blackwell, UK.
- Tuan, Y.F. (1990). Topophilia: A Study of Environmental Perception, Attitudes and Values, Columbia University Press, USA.

## **CONTEMPORARY RESEARCH TRENDS IN GEOGRAPHY**

- Bettinger, P., Boston, K., Siry, J.P. & Grebner, D.L. (2009): *Forest Management and Planning*, Elsevier Inc., USA.
- Brenner, N. & Theodore, N. (2003): *Spaces of Neoliberalism: Urban Restructuring in North America and Western Europe*, John Wiley & Sons, USA.
- Brady, N.C. & Weil, R.R. (1996): *The Nature and Properties of Soil*, Longman, London.
- Burbank, D.W. & Anderson, R.S. (2011): *Tectonic Geomorphology*, Wiley-Blackwell, USA.
- Chatterjee, S.N. (2008): *Water Resource, Conservation and Management*, Atlantic Publishers & Distributors (P) Limited, New Delhi.
- Cock, N.K. (1995): *Geohazards: Natural and Human*, Prentice Hall, UK.
- Coleman, D.C. & Crossby, J. (1996): *Fundamentals of Soil Ecology*, Academic Press, San Diego.
- Enyedi, G. & Kiado, A. (1998): *Social Change and Urban Restructuring in Central Europe*, The University of Michigan, USA.
- Fenton, S. (2010): *Ethnicity*, Polity Press, USA.
- Floth, H.D. (1990): *Fundamentals of Soil Science*, John Wiley and Sons, New York.
- Gibbs, J. (1961): *Urban Research Methods*, East-West Press Pvt Ltd. New Delhi.
- Hall, T. & Barrett, H. (2012): *Urban Geography*, Routledge, USA.
- Howard, F. (2007): *Wetlands*, ABDO Publishing Company, Minnesota, USA.
- Human, J. and Pattanaik, M. (2000): *Community Forest Management: A Casebook from India*, Oxfam International UK.
- IPCC (2013): *Climate Change 2013: The Physical Science Basis*, Working Group I Contribution to the Fifth Assessment Report, Cambridge University Press.
- IPCC (2014): *Climate Change 2014: Mitigation of Climate Change*, Working Group III Contribution to the Fifth Assessment Report, Cambridge University Press.
- Iyer, R.R. (2003): *Water: Perspectives, Issues and Concerns*, Sage Publications, India.
- Jain, S.K., Agarwal, P.K. & Singh, V.P. (2007): *Hydrology and Water Resources of India*, Springer.
- Keddy, P. A. (2010): *Wetland Ecology: Principles and Conservation*, Cambridge University Press, USA.
- Keller, E.A. & Pinter, N. (2002): *Active Tectonics: Earthquakes, Uplift & Landscape*, Prentice Hall, USA.
- Kumar, A. & Pandey, R.N. (2011): *Wasteland Management in India*, University of Minnesota, USA.
- Lawrence, G., Lyons, K. & Wallington, T. (2010): *Food Security, Nutrition and Sustainability*, Earthscan, Routledge, UK.
- Leary, N., Conde, C., Kulkarni, J., Nyong, A. & Pulhin, J. (Eds.) (2008): *Climate Change and Vulnerability*, Earthscan, London.
- Lovejoy, T.E. & Hannah, L. (eds.) (2005): *Climate Change and Biodiversity*, Yale University Press, London.
- McDonald, B.L. (2013): *Food Security*, John Wiley & Sons, USA.
- Mitsch, W.J. & Gosselink, J.G. (2015): *Wetlands*, John Wiley & Sons, USA.
- Montgomery, W.W. (2017): *Growing a Revolution: Bringing Our Soil Back to Life*, Norton & Company, USA.
- Morgan, R.P.C. (1995): *Soil Erosion and Conservation*, Longman, London.
- Njuki, J., Parkins, J.R. and Kaler, A. (2016): *Transforming Gender and Food Security in the Global South*, Routledge, UK.
- Paarlberg, R. (2013): *Food Politics: What Everyone Needs to Know*, Oxford University Press, UK.
- Pacione, M. (2005): *Urban Geography: A Global Perspective*, Routledge, UK.
- Postel, S. (2013): *The Last Oasis: Facing Water Scarcity*, Earthscan, Routledge.
- Schwab, G.O., Fangmeir, D.D. & Elliot, W.J. (1996): *Soil and Water Management Systems*, John Wiley and Sons Inc., New York.
- Smith, K. (1996): *Environmental Hazards: Assessing Risk and Reducing Disaster*, Routledge, UK.
- Swain, A. (2004): *Managing Water Conflict: Asia, Africa and the Middle East*, Routledge, UK.
- Weingast, B.R. & Wittman, D.A. (Eds.) (2008): *The Oxford Handbook of Political Economy*, Oxford University Press, UK.
- Willett, S.D., Hovius, N., Brandon, M.T. & Fisher, D.M. (Eds.) (2006): *Tectonics, Climate and Landscape Evolution*, Geological Society of America, Special Paper 398.
- Yadav, H.R. (1990): *Reclaiming Wastelands: A Case-study of Amethi Block, District Sultanpur*,

# ***SYLLABUS***

**(With Effect From 2020 onwards)**

*for*

**Ph.D. Course Work in Geography**

**Revised in the PGBS Meeting held on 12.5.22**



**DEPARTMENT OF  
GEOGRAPHY THE UNIVERSITY OF  
BURDWAN**

**Golapbag, Burdwan-713104**

**[www.buruniv.ac.in](http://www.buruniv.ac.in)**

**General Program Structure:** The grand total of marks for Ph.D. Course Work (CW) Program shall be 175 marks (14 credits) to be distributed as follows:

Program	Course Code	Course Title	Credit Value	Marks Distribution
				Total Marks
Ph.D. Course Work in Geograp hy	PHDCW101	Research Methodology	4	50
	PHDCW 102	Research & Publication Ethics	2	25
	PHDCW 103	Research Methods and Techniques in Geography	4	50
	PHDCW - 104	Term papers and Related Seminar Presentation	4	(25 + 25) = 50
	<b>GRAND TOTAL</b>			<b>14</b>

## Contents

Course- PHDCW -101.....	
ResearchandPublicationEthics.....	
Course- PHDCW -102.....	
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Course- PHDCW -103.....	
ResearchMethodsandTechniquesinGeography	
Course- PHDCW -104	
TermPaperandSeminarPresentation.....	

**Course- PHDCW 101**  
**ResearchMethodology**  
 TotalCredit:4

Time:2 Hours

TotalMarks: 50

Minimumnumber oflecturesforthecourseis36.

**Method of Evaluation:** The examination shall be conducted based on writtentest. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

Sl.	Topics
1.	Concept, TypesandApproachesofResearch
2.	PhilosophyofResearch–Positivist andPostPositivist
3.	Identification of Research Problem, Objectives, Research Questions andFormulationofHypothesis
4.	LiteratureSurveyand Review,ReferencingStyle
5.	TypesofEmpirical Survey–ReconnaissanceSurvey,Preparation of Questionnaire
6.	SamplingTechnique:Random,StratifiedRandomandMulti-Stage
7.	RelevanceofQualitative, QuantitativeandMixedMethods inGeographicalResearch
8.	ReportWriting

**Course- PHDCW 102****Research and Publication Ethics**

Total Credit: 2

Time: 2 Hours

Total Marks: 25

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 Minimum number of lectures for the course is 30.

**Method of Evaluation:** The examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 5 marks.

<b>Unit-1: THEORY</b>
<b>RPE1: PHILOSOPHY AND ETHICS</b>
1. Introduction to philosophy: definition, nature and scope, concept, branches.
2. Ethics: definition, moral philosophy, nature of moral judgements and reactions
<b>RPE2: SCIENTIFIC CONDUCT</b>
1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FPP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data
<b>RPE3: PUBLICATION ETHICS</b>
1. Publication ethics: Definition, Introduction and Importance
2. Best Practices/Standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflict of Interest
4. Publication Misconduct: Definition, Concept, Problems that lead to unethical behavior and vice versa, Types
5. Violation of Publication Ethics, Authorship and Contributorship
6. Identification of Publication Misconduct, Complaints and Appeals
7. Predatory Publishers and Journals

<b>Unit-2:PRACTICE</b>
<b>RPE4:OPENACCESSPUBLISHING</b>
1.OpenaccesspublicationsandInitiatives
2.SHERPA/RoMEOonlineresourcetocheck publishercopyright&self-archivingpolicies
3.Softwaretool to identifypredatorypublications developed bySPPU
4.Journalfinder/journalsuggestion toolsviz.JANE,ElsevierJournalfinder,Springer JournalSuggesteretc.
<b>RPE5:PUBLICATIONMISCONDUCT</b>
<b>A.GroupDiscussions</b>
1.Subjectspecificethicalissues,FPP,Authorship
2.ConflictsofInterest
3.ComplaintsandAppeals:ExamplesandFraudfromIndiaandAbroad
<b>B.Softwaretools</b>
UseofplagiarismsoftwarelikeTurnitin,Urkundandotheropensourcesoftwaretools
<b>RPE-6:DATABASESANDRESEARCHMETRICS</b>
<b>A.Databases</b>
1.Indexingdatabases
2.Citationdatabases:WebofScience,Scopus,etc.
<b>B.ResearchMetrics</b>
1.ImpactFactorofJournalasperJournalCitationReport,SNIP, SJR,IPP,CiteScore
2.Metrics:h-index, g-index,i10 index,Almetrics



**Course- PHDCW 103**

**Research Methods and Techniques in Geography**

Total Credit: 4

Time: 1 Hour

Total Marks: 50

Minimum number of lectures for the course is 36.

**Method of Evaluation:** The examination shall be conducted based on written test. Candidates are required to answer any five questions, out of eight questions. Each question carries 10 marks and should have at least two parts.

Sl.	Topics
1.	Scaling of data, Data Standardization, Parametric and Non-parametric statistics, Uses and Misuses of Statistics, Descriptive and Inferential Statistics, Analysis of Spread and Shape.
2.	Methods of Sampling with Central Limit Theorem
3.	Hypothesis Testing: Chi Square Test with Contingency Coefficient and Phi Component, t test, z Test, ANOVA Test (One Way, Two Way, Friedman Rank), Mann-Whitney U-Test, Kruskal-Willis Test
4.	Multivariate Analysis: PCA, cat-PCA, CCA, Discriminant Analysis, Dendrogram, Logistic Regression
5.	Qualitative Research: Concept and Relevance
6.	Theoretical Approaches (Phenomenology and Grounded Theory) and Implication of Data Collection
7.	Sampling Techniques: Purposive, Quota and Snowball
8.	Methods of Data Collection: Interview, Focus Group, Observation and Case Study
9.	Geospatial Technique in Geographical Research: Procurement, Selection procedure and Processing of Satellite Imagery
10.	Error Correction of Digital data
11.	Spatial Database Generation and Layout Creation Using Open Source Software
12.	DGPS and TS Survey: Site, Suitability and Application

**Course- PHDCW 104**  
**Term Paper and Seminar Presentation**

Total Credit: 4

Total Marks: 50

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**Method of Evaluation:**

**(a) Written Report: 25 Marks**

**(b) Seminar Presentation and Vivavoce: 25 Marks**

The candidate has to prepare a Research Proposal as Term Paper which s/he wants to pursue for Ph.D. Degree. This research proposal should clearly mention the conceptual aspects, the objectives, sources of data/information, possible methodology to be adopted and a comprehensive review of the literature on the particular topic with the existing research gap and relevance of the study.

Text of the Term Paper should be within 8000– 10000 words, typed in Times New Roman Font (Size: 12) with 1.5 line spacing on A4 Paper. The left margin should be 2", whereas the top, right and bottom margins should be 1.5". APA Style of Referencing is to be followed for the term paper.

**SUGGESTED**  
**READINGS RESEARCH METH**  
**ODOLOGY**

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