No. 6-38/2022 (FSS) CBCS (PG) -HPU (Acad.)
Himachal Pradesh University, Summer Hill, Shimla-5
(NAAC Accredited "A" Grade University)
"Academic Branch".

Dated: 10 AUG 2022

To

1. The Dean, Faculty of Social Sciences HPU, Shimla-5
2. The Controller of Examinations, HPU, Shimla-5.
3. The Director, ICDEOL, HPU, Shimla-5.
4. The D.R. Exam. (PG) HPU, Shimla-5.
5. The D.R. Eval./Re-Eval./Conduct, HPU, Shimla-5.
6. The D. R. Secrecy, HPU, Shimla-5. **(with 2 spare copies.)**
7. The S.O. Exam (PG, Geography) HPU, Shimla-5.
8. The Librarian, HPU Main Library, Shimla-5
9. The Incharge, Computer Centre, Examination Wing (PG), HPU, Shimla-5.

Subject: ***Complimentary copies of New Syllabus of M.A Geography (under CBCS) and Course work of Ph.D Programme in Geography.***

Sir/Madam,

I am sending herewith a complimentary copy of New Syllabus of ***M.A Geography (under CBCS)*** *as per Annexure-I and* ***Course work of Ph.D Programme in Geography*** *as per Annexure-II* duly approved by the Standing Committee of Academic Council in its meeting held on 19.07.2022 vide item No.9, further approved by the Executive Council vide spot resolution No. 3 in its meeting held on 20-07-2022, on the recommendations of the concerned Board of Studies (PG) and Faculty of Social Sciences for its implementation from the Academic Session 2022-23 onwards.

Yours faithfully,

10/8/22

Deputy Registrar (Acad.)
HP University Shimla-5.
Dated: 10 AUG 2022

Endst. No. Even
Copy to:

1. The Chairman, Deptt. of Geography, HPU, Shimla-5 for information and **send the soft copy in PDF format to web Admin, HPU, Shimla-5 immediately.**
2. All the Principal, Govt./Non-Govt., Affiliated Colleges under the Jurisdiction of H.P. University/HPU Regional Centre Dharamshala, Distt. Kangra (HP)/ Principal, Deptt. of Evening Studies, HPU, Shimla-1, running above mentioned course and also requested to kindly download the above mentioned syllabus from the University website i.e. www.hpumix.ac.in.
3. The Web Admin, HPU, Shimla-5, with the request to upload this letter with syllabus on the website.
4. The Dealing Assistant Meeting (Acad.), HPU, Shimla-5, for information.
5. Guard file.

10/8/22

Deputy Registrar (Acad.)

ANNEXURE -II

Approved in Post Graduate Board of Studies (BoS) meeting in subject of Geography held on 17-06-2022

Faculty of Social Sciences

HIMACHAL PRADESH UNIVERSITY

(A State Government University Accredited with 'A' Grade by NAAC)

Choice Based Credit System
Course Structure and Syllabus
For
PhD Course Work in Geography
(w.e.f. July 2022)

Department of Geography
Himachal Pradesh University
Summerhill, Shimla-171005

17/06/22 17/6/22 17/6/22

Course Structure and Syllabus
For
Doctor of Philosophy (PhD) in Geography

About the Course:
The Course work of study leading to Degree of Doctor of Philosophy (PhD) in Geography in Himachal Pradesh University, Shimla shall be of six months duration spread over one semester. The course has been designed as per the instructions issued by the Himachal Pradesh University and university Grants Commission It consists of combination of three course papers i.e. Core (02) and Skill based-cum-practical (01). The curriculum design has focus on both the theoretical and practical training to enable students to work as professional geographers who can understand the basics of research techniques and related issues. The students have to qualify all three papers to complete the required Course work leading to PhD programme in Geography. The number of seats, eligibility requirement for admission, basis of admission, age limit, reservation, fee structure, scheme of examination and qualifying marks will be as per the rules and regulations of Himachal Pradesh University as prescribed in the University Ordinance and Handbook of Information (HBI) changed from time to time. The candidates will have to produce the proof of their having passed the Bachelor's Degree, Post Graduation degree with required percentage of marks, M.Phil Degree and UGC JRF/ NET/ SLET certificates before the last date of admission as fixed for the candidates by the admission committee of the Department, failing which their candidature will stand cancelled. The course work and subsequent research work of the candidate will be regulated by the UGC regulations and Himachal Pradesh University norms.

Programme Outcomes: The key programme outcomes (POs) are as under:

PO1. Cognizance of nature, principles and concepts of research in geography

PO2. Understanding, classifying and recognising significance of data in geographic research

PO3. Acquaintance with quantitative techniques, research methods and geo-spatial technical skills in geographic research

PO4. Understanding the philosophy of ethics, integrity and publication ethics

PO5. Acquaintance with indexing and citation databases and research metrices

PO6. Understanding nuances of thesis writing in geography

PO7. Training students addressing socio-economic and environmental problems

17/6/22 17/6/22 17/6/22

Department of Geography
Himachal Pradesh University, Shimla

Course work for PhD Degree in Geography

There shall be two core and one skill based compulsory course papers offered by the department as part of course work in PhD programme. Every student will have to qualify all these three course papers. The scheme of examination and the detailed syllabi for all the three course papers will be as follows:

Course Structure for PhD Course Work in Geography

Course Code	Course type	Course Title	Credit Hours/Week				Marks Scheme	
			L	P*	T**	Cr	Theory	IA
GEOG.501	C	Research Methodology in Geography	5	-	1	6	70	30
GEOG.502	C	Research and Publication Ethics	1	2	-	2	70	30
GEOG.503	SBC	Advanced Statistical and Geo-spatial Techniques	3	6	-	6	70	30
		Total Credit	**9**	**8**	**1**	**14**	**Total Marks = 300**	

*C: Core, **SBC**: Skill Based Course, **L**: Lecture, **T**: Tutorial, **P**: Practical, Cr: Credit*

17/06/22 19/6/22 17/6/22

Course: GEOG.501

Research Methodology in Geography

Max Marks: 100

Course description:

This course introduces students to the key approaches that geographers use to answer important questions and solve complex problems relating to the social world. The subject provides a conceptual and practical overview of the diverse research methods used in geography. It is designed to help students pursuing research programme(s) in Geography to prepare for their research based thesis work. Topics covered include the scope of geographical research, research design, sampling design and data collection, data analysis and presentation, data interpretation and thesis writing skills.

Course objectives:

- To understand essentials of research in Geography and its significance
- To understand the ways data are collected, classified, tabulated and analyzed
- To makes students aware about fundamentals of sampling techniques in geographic research
- To make research students proficient about application of Qual and Quant techniques in geographic research
- To make students aware about the basics of thesis writing

Course learning outcomes:

- Acquaintance with basics of research, its typology and conceptualization of research problem
- Understanding of sources, typesand tools of data collection and data analysis
- Cognizance of data representation and interpretation
- Understanding nuances of thesis writing in geography

UNIT-I

Perspectives in Geographic Research, Geographic questions in research, Meaning and Types of Research, essential features of quality of a thesis in geography, issues pertinent to a thesis in geography

UNIT-II

Identification and formulation of Research problem, Writing of the research proposal-issues and formulation, Literature search and review, formulation of research hypotheses and their testing.

UNIT-III

Sources and methods of primary Data Collection- Field work, observation Method, the Questionnaire, Sampling- Sampling design, sampling frame, sampling methods and types
Secondary Data: Census, National Sample Survey Organization, Central Statistical Organization, National Family Health Survey,The Economic Survey, Centre for monitoring Indian economy(CMIE) database

UNIT-IV

Data Analysis-Qualitative Methods-Phenomenology, ethnography, Grounded Theory, Content analysis, Discourse analysis and historiography, Quantitative Research designs, Comparison between quantitative and qualitative research, Data interpretation,research paper and thesis writing in Geography.

Instructions for paper setter and students:

- **Maximum Marks**: Maximum marks for the course paper would be 100 and pass marks would be 40% in written examination. The pass marks in internal assessment test will also be 40% to be obtained separately.
- **Distribution of Marks:**100 marks for the course would be divided as follows:
    a. Written examination 70 marks (Pass Marks = 28)

b. Internal assessment 30 marks (Pass Marks = 12)

- **Duration of Examination:** Written examination would be of 3 hours duration and would be conducted in the university. The question paper for the written examination shall be set by the external examiner as per the university norms.
- **Distribution of IA Marks:**Internal assessment marks would be given by the course teacher on the basis of lecture attendance (5 marks) and classroom performance (25 marks). The marks in the classroom attendance would be given in the following manner: (upto 75% :**Nil**; 75 - 80% : **1**; 81-85% : **2**; 86-90% : **3**; 91-95%: **4** and above 95%: **5**). The classroom performance of the students would be assessed by the course teacher on the basis of performance in class room test(s)/ seminar(s)/ class room assignment(s), tutorial etc. as per the choice of the course teacher.
- **Pattern of Question Paper:**The paper would be set from the syllabus covering the full content. The question paper in this course will be divided into two parts. **Part-1** will be compulsory and consist of **10** short answer type questions covering full syllabus and carrying **3** marks each. **Part-II** will consist of **8** descriptive (long answer type) questions, two from each unit are to be framed, out of which candidates will have to attempt **4** questions selecting one from each unit. Each question carries **10** marks.

Books Recommended:

Blaxter, L.; Hughes, C. and Tight, M. (1996): How to Research. Open University Press, Buckingham.

Davis, P.C. (1985): Data Description and Presentation, Oxford, London.

Dikshit, R. D. (2003): The Art and Science of Geography: Integrated Readings. Prentice-Hall of India, New Delhi.

Flowerdew, R. and Martin , David. (2005): Methods in Human Geography: A Guide for Students Doing a Research Project, Second Edition, Routledge, USA.

Hay, I. (ed.) (2000): Qualitative Research Methods in Human Geography. Oxford University Press, New York.

Kitchin, R. and Tate, N., (2001): Conducting Research into Human Geography. Theory, Methodology and Practice. Prentice-Hall, London.

Krishan, G. and Singh, N., (2020): Researching Geography- The Indian Context, Second Edition, Routledge, London and New york.

Kothari, C. R.(2008): Research Methodology, Methods & Techniques, New Age International Publisher, New Delhi.

Limb, M. (2001): Qualitative Methodologies for Geographers. Issue and Debates. Edward Arnold, London.

Mishra, H.N. & Singh, V.P. (2002): Research Methodology in Geography, Rawat Publications, Jaipur.

Misra, R.P. (1985): Research Methodology, Concept Publishing Co., New Delhi.

Stoddart, R.H. (1982): Field, Techniques and Research Methods in Geography, Kendall Hunt, Dubuque.

Warf, B. (Ed)(2006): Encyclopedia of Human Geography, SAGE Publications, London.

Course: GEOG.502
Research and Publication Ethics

Max Marks: 100

Course description:

Research and Publication Ethics (RPE) is a two credit course approved by University Grants Commission (UGC) for awareness about publication ethics and publication misconducts. Overview of this course has total 6 major contents focusing on basics of philosophy of science and ethics, research integrity, publication ethics and practice based contents such as open access publishing, publication misconduct, Databases and research metrics.After completion of this courseresearch students will have awareness about the publication ethics and publication misconducts.

Course objectives:

- To understand the philosophy of science and ethics, research integrity and publication ethics
- To identify research misconduct and predatory publications
- To understand indexing and citation databases, open access publications, research metrics (citations, h-index, impact Factor, etc.).
- To understand the usage of plagiarism tools.

Course learning outcomes:

- Understanding research integrity andpublication ethics
- Cognizance of the misconduct and plagiarism in research
- Knowledge about predatory journals
- Utilization of various online literature data bases and software to analyze their research output.

Unit-I (Theory)

Philosophy and Ethics

- Introduction to Philosophy: definition, nature and scope, content,Branches, Ethics: definition, moral philosophy, nature of moral judgments andReactions

Scientific Conduct

- 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, salamislicing, Selective reporting and misrepresentation of data

Publication Ethics

- Publication ethics: definition, introduction and importance, best practices/ standards setting initiatives and guidelines: COPE,WAME, etc., Conflicts of interest

Unit-II (Practice Based)

Open Access publishing

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

Publication Misconduct

- Group Discussions: Subject specific ethical issues, FFP, authorship;conflicts of interest; complaints and appeals: examples and fraud from Indiaand abroad, Software tools: Use of plagiarism software like Turnitin,Urkund and otheropen-source software tools

Databases and Research Metrics

- Databases: Indexing databases; Citation database: 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, almetrics

Instructions for paper setter and students:

- **Maximum Marks**: Maximum marks for the course paper would be 100 and pass marks would be 40% in written examination. The pass marks in internal assessment test will also be 40% to be obtained separately.
- **Distribution of Marks:** 100 marks for the course would be divided as follows:
    a. Written examination 70 marks (Pass Marks = 28)
    b. Internal assessment 30 marks (Pass Marks = 12)
- **Duration of Examination:** Written examination would be of 3 hours duration and would be conducted in the university. The question paper for the written examination shall be set by the external examiner as per the university norms.
- **Distribution of IA Marks:** Internal assessment marks would be given by the course teacher on the basis of lecture attendance (5 marks) and classroom performance (25 marks). The marks in the classroom attendance would be given in the following manner: (upto 75% :**Nil**; 75 - 80% : **1**; 81-85% : **2**; 86-90% : **3**; 91-95%: **4** and above 95%: **5**). The classroom performance of the students would be assessed by the course teacher on the basis of performance in class room test(s)/ seminar(s)/ class room assignment(s), tutorial etc. as per the choice of the course teacher.
- **Pattern of Question Paper:** The paper would be set from the syllabus covering the full content. The question paper in this course will be divided into two parts. **Part-1** will be compulsory and consist of **10** short answer type questions covering full syllabus and carrying **3** marks each. **Part-II** will consist of **8** descriptive (long answer type) questions, two from each unit are to be framed, out of which candidates will have to attempt **4** questions selecting one from each unit. Each question carries **10** marks.

Suggested Readings:

Beall, J. (2012) – Predatory publishers are corrupting open access. Nature, 489(7415).

Bird, A. (2006)- Philosophy of Science.

P. Chaddah, (2018): Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865

Resnik, D. B. (2011): What is ethics in research & why is it important? National Institute of Environmental Health Sciences, 1-10. Retrieved from http://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm

Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance(2019),ISBN:978-81-939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

Macintyre, Alasdair (1967): A short History of Ethics.

National Academy of Science, National Academy of Engineering and institute of Medicine (2009) on being a Scientist: A Guide of Responsible Conduct in Research.

Course: GEOG.503

Advanced Statistical and Geo-spatial Techniques

Max Marks: 100

Course description:

Geography is a spatial science which aims at spatial analysis of phenomena, concepts and relationships among different entities toenhance and deepen geographic knowledge. In this regard,both descriptive and inferential statistical techniques in combination with geospatial tools have been useful to make geographical analysis amenable to the researchers. In this present course, the students will come across statistical approaches like probability, correlation and regression. The research students will also learn about data reduction techniques of factor analysis principal components analysis. They will be also given hands on training on GIS packages during the course work.

Course objectives:

- To explain the students about need and use of statistical techniques in geographic research
- To elucidate the students about concepts of probability and distributions in Geography
- To explain the students about the nature and degree of relationship between variables.
- To understand the cause and effect relationship among the variables
- To learn about data reduction strategies and techniques in multivariate analysis
- To train students about geoprocessing and morphometric techniques

Course learning outcomes:

- Determining the need and use of quantitative techniques in Geography
- Understanding and evaluating the nature of data and their spatial distribution
- Acquaintance with probability density functions
- Understanding the nature, degree and casual effect of relationship among variables
- Acquaintance with surface analysis approaches and techniques in geographic research

Unit-I

Nature of Geographical data: scale of Measurement; Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their geographical applications.

Unit-II

Correlation and Regression Analysis: Rank order correlation and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression; Multiple Regression,Introduction to multivariate analysis- Factor analysis and Principal components analysis, Hypothesis Testing, Analysis of variance, Gravity and Potential Models, Network Analysis, Trend Surface Analysis

Unit-III

Georeferencing Maps/Images, Digitization of Raster Map, Preparation of Attribute Tables, Editing and Joining Tables, Analyzing Attribute Data: Calculating Area, Perimeter, and Length. Spatial Representation: Mapping Techniques, Spatial Representation: Symbolizing and Map Layouts,

Unit-IV

BasicAnalysis in GIS: Buffering, Overlay and Query Building, spatial data analysis, surface analysis, morphometric analysis, GPS Applications, Collection of ground control points using hand held GPS receiver, Transferring data from GPS receiver to PC and point data analysis.

Instructions for paper setter and students:

- **Maximum Marks**: Maximum marks for the course paper would be 100 and pass marks would be 40% in written examination. The pass marks in internal assessment test will also be 40% to be obtained separately.

- **Distribution of Marks:** 100 marks for the course would be divided as follows:
    a. Written examination 70 marks (Pass Marks = 28)
    b. Internal assessment 30 marks (Pass Marks = 12)
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Suggested Readings:

Taylor, Peter J. (1977): Quantitative Methods in Geography, An Introduction to Spatial Analysis. HougtonMiffin Company, Boston,USA.

Hammond, R. and PatrikMcCullagh (1974): Quantitative Methods in Geography, Clarendon Press,Oxford.

Smith, David M. (1975): Patterns in Human Geography, An introduction to Numerical Methods, Crane Russak& Company, IncNewYork.

Frank Harry and Steven C. Althoen (1994): Statistics Concepts and Applications, Cambridge University Press.

Gulot, S.K.: Statistical Methods

Elhance, D.N. (1972): Fundamentals of Statistics, KitabMahal, Allahabad.

M. de Smith, M. Goodchild, P. Longley; Geospatial Analysis - a comprehensive guide. 3rd edition © 2006-2009; Published by Matador (an imprint of Troubador Publishing Ltd) on behalf of The Winchelsea Press; ISBN 13: 9781848761582; Free web

Lance A. Waller and Carol A. Gotway (2004).Applied Spatial Statistics for Public Health Data.Wiley, New York.

Trevor C. Bailey and Anthony C. Gatrell.(1995). Interactive Spatial Data Analysis, Prentice Hall.

Roger S. Bivand, Edzer J. Pebesma, and V. Gómez-Rubio (2013). Applied Spatial Data Analysis with R, 2nd edition.Springer, New York.

Anselin, Luc. (2005). Exploring Spatial Data with GeoDaTM: A Workbook, available at http://www.csiss.org/clearinghouse/GeoDa/geodaworkbook.pdf

Tyagi,N and Rana, N.K (2015): Geospatial technology: Applications in Natural Resource Appraisal& Management, R. K. Books, Darya Ganj, Delhi.