

# **Ph.D. COURSE WORK SYLLABUS**

**SUBJECT: GEOGRAPHY**

**(With effect from 2022)**

**Department of Geography  
University of Kalyani  
Kalyani, Nadia, West Bengal  
PIN CODE-741235**

# Ph.D. COURSE WORK SYLLABUS

## SUBJECT: GEOGRAPHY

**Duration: One Semester (Six Months)**

**Total Credit: 16**

<b>Paper</b>	<b>Name of the Paper/Course item</b>	<b>Marks</b>	<b>Credits</b>
<b>01-RM/A</b>	<b>Research Methodology (A)*</b>	<b>100 (60+20+20) (Term End Examination + Internal Assessment +Viva-voce)</b>	<b>04</b>
<b>02-RM/B</b>	<b>Research Methodology (B)</b>	<b>100 (60+20+20) (Report+Presentation+ Viva-voce)</b>	<b>04</b>
<b>03-ALC/A</b>	<b>Advanced Level Course on Subject (A)</b>	<b>100 (60+20+20) (Term End Examination + Internal Assessment +Viva-voce)</b>	<b>04</b>
<b>04-ALC/B (PG) or 04-ALC/B (HG)</b>	<b>Advanced Level Course on Subject (B)**</b>	<b>100 (60+20+20) (Term End Examination + Internal Assessment +Viva-voce)</b>	<b>04</b>
	<b>Total</b>	<b>400</b>	<b>16</b>

\*The Paper 01-RM/A will be conducted at Faculty level.

\*\* Shall be chosen from a group of transdisciplinary recognised subjects.

### **Abbreviation:**

RM = Research Methodology

ALC = Advanced Level Course

PG = Physical Geography

HG = Human Geography

**Ph.D. COURSE WORK SYLLABUS**  
**SUBJECT: GEOGRAPHY**

**Paper: 02-RM/B**  
**Research Methodology (B)**  
**Full Marks: 100 Credits:04**  
**(Report: 60 + Presentation: 20 + Viva-voce: 20)**

Review of Published research, Documentation/submission of Reports on Review work and Presentation

- Each candidate will review the literature of the research problem assigned for his/her Ph.D. work and submit a write up with identified research gap (within 5000 words).

**Paper: 03-ALC/A**  
**Advanced Level Course on Subject (A)**  
**Full Marks: 100 Credits:04**  
**(Term End Examination: 60 + Internal Assessment:20 + Viva-voce:20)**

**Field Work, Analytical Techniques and Basics of Geographical Research**

- Identification and formulation of Research Problem, Research Gap, Formulation of Research Questions, Development of Hypothesis in Geography
- Relevance of Field Book, Sample Collection, Identification of Physical and Cultural Attributes, Ground Truth Verification, Preparation of Questionnaire and Survey Schedule, Collation of Cadastral and other Maps
- Significance of Spatio-Temporal analysis, Longitudinal and Cross Sectional analysis
- Importance of Modelling
- Style of Writing Scientific Paper, Research Proposal, Recording Major Findings along with Suggestions and Drawing Conclusion, Referencing Style (APA) and Bibliography

**Mode of Internal Assessment:** Class Test

**Paper: 04-ALC/B (PG)**

**Advanced Level Course on Subject (B)**

**Full Marks: 100 Credits:04**

**(Term End Examination: 60 + Internal Assessment:20 +Viva-voce:20)**

**Analysis of data through statistical and RS/GIS software in Physical Geography**

**Unit-I: Use of Statistical Software for Research in Physical Geography**

Histogram, Skewness and Kurtosis; Descriptive Statistics; Analysis of Variance, Linear and Non-linear regression; Multivariate Analysis:Factor Analysis, Principal Component Analysis, Clustering Techniques; Sampling and Hypothesis Testing (Parametric and Non Parametric)

**Unit-II: Application of RS and GIS Software for Research in Physical Geography**

Application of Remote Sensing and GIS for preparation of Thematic Maps, Detection of Change in Land Cover and Land Use using Satellite Images and Topographical Sheets; Concept of DEM and TIN, Use of GPS for updating the Maps

**Mode of Internal Assessment:** Project Report on any issue in Physical Geography using Statistical and RS/GIS software

**OR**

**Paper:04-ALC/B (HG)**

**Advanced Level Course on Subject (B)**

**Full Marks: 100 Credits:04**

**(Term End Examination: 60 + Internal Assessment:20 +Viva-voce:20)**

**Analysis of data through statistical and RS/GIS software in Human Geography**

**Unit-I: Use of Statistical Software for Research in Human Geography**

Histogram, Skewness and Kurtosis; Descriptive Statistics; Analysis of Variance, Linear and Non-linear regression; Multivariate Analysis:Factor Analysis, Principal Component Analysis, Clustering Techniques; Sampling and Hypothesis Testing (Parametric and Non Parametric); Narrative Analysis through Cloud Zooming, Analysis of Text, Grounded Theory

**Unit-II: Application of RS and GIS Software for Research in Human Geography**

Application of Remote Sensing and GIS for preparation of Thematic Maps, Detection of Change in Land Cover and Land Use using Satellite Images and Topographical Sheets; Concept of DEM and TIN, Use of GPS for updating the Maps

**Mode of Internal Assessment:** Project Report on any issue in Human Geography using Statistical and RS/GIS software