# Programme Outcomes, Programme Specific Outcomes and Course Outcomes for Two Years M. Phil. Programme

**Programme Name: Two Years M. Phil. in Geography & Applied Geography**
**Number of Semesters: Four**



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**NAME OF THE PROGRAMME: TWO YEARS M.PHIL PROGRAMME**
**DEPARTMENT OF GEOGRAPHY & APPLIED GEOGRAPHY**
**UNIVERSITY OF NORTH BENGAL**

**PROGRAMME OUTCOMES**
- Instill confidence to carry out individual research work.
- Foster confidence among students enabling them to be able to interact with the respondents while collecting primary data by developing effective communications skills.
- Develop critical thinking and skills to analyze problems related to their research themes.
- Prepare objective scientific approach to be able to address research problems in Applied Geography and allied fields.
- Ensure that the lessons are self-directed and lead to life long learnings.

**PROGRAMME SPECIFIC OUTCOMES**
- Students acquire a greater understanding of the physical, socio-economic and demographic dimensions of geography and develop the capability of observation through field experience to identify the socio-environmental problem of the study area
- Provide hands on training to use GIS/RS software; statistical software and GPS.
- The Ability Enhancement Course strives to develop communication powers for attending Seminars, workshops and writing scientific research papers for journals and books.
- The students will be able to write effective reports and the dissertations prepared by students will enable them to carry their further research work.
- Develop sensitivity towards societal responsibility and sustainable development.
- Make them competent in applying their knowledge gained in different job sector.

# COURSE OUTCOMES: TWO YEARS M.PHIL PROGRAMME
## SEMESTER—I

| COURSE CODE | COURSE NAME | COURSE OUTCOMES |
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| **MGAG 101** | **RESEARCH METHODOLOGY** | **KNOWLEDGE GAINED**:<br>• Gain concepts about the Research Methodology with focus on its meaning, objectives, significance, design; methods of data collection; sampling techniques; referencing format<br><br>**SKILL GAINED**:<br>• Gain knowledge about how to progress with the research in a systematic and scientific manner<br>• Formulate hypothesis for research<br>• Conduct field survey in a systematic manner<br><br>**COMPETENCY DEVELOPED**:<br>• Progress with the research work in a systematic and scientific manner<br>• Have an in-depth knowledge about how to collect primary and secondary data<br>• Formulate research design in a comprehensive manner through which the students can progress with their work and complete their dissertation within the stipulated time frame |
| **MGAG-102** | **QUANTITATIVE TECHNIQUES** | **KNOWLEDGE GAINED:**<br>• Learn all the relevant techniques and methods for analyzing the data quantitatively through basic descriptive statistics to bivariate analysis; multivariate analysis both on analog and digital platform<br><br>**SKILLS GAINED:**<br>• Apply the apt techniques for carrying out their research work<br>• Have the ability to assess the data manually or by using software<br><br>**COMPETENCY DEVELOPED:**<br>• Know the proper test required to validate the hypothesis<br>• Use proper methods to quantify the primary and secondary data |

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| **MGAG-103** | **METHODS AND APPLICATION OF GIS** | **KNOWLEDGE GAINED:**<br>• Aims to develop the students theoretical bases, principles and application of GIS<br>• Hands on training to prepare thematic maps and digital image processing<br><br>**SKILLS GAINED:**<br>• Apply the knowledge of GIS in making thematic maps with the help of open source software as well using the licensed software Global Mapper, Map Info, Arc GIS and ERDAS provided by the department<br><br>**COMPETENCY DEVELOPED:**<br>• Handle the software on their own for their respective field of research |
| **MGAG-104** | **TECHNIQUES AND APPLICATIONS OF REMOTE SENSING, AIR PHOTO AND GPS** | **KNOWLEDGE GAINED:**<br>• Acquire theoretical knowledge about principles of Remote Sensing and its application in different physical and cultural domain of Geography; interpretation of Aerial photographs in making of land use and land cover mapping and data acquisition and application of GPS<br><br>**SKILLS GAINED:**<br>• Apply the knowledge of RS and Aerial Photographs in determining the change detection of urban growth, watershed, tourism development, flood assessment and vulnerability zonation, estimating the forest cover, preventing of natural disaster, route alignment and transport network, ground water management and relevant themes<br>• Apply the knowledge of GPS in determining point data in connection with ground truth verification and accuracy assessment<br><br>**COMPETENCY DEVELOPED:**<br>• Handle the software on their own for their respective field of research; use GPS to explore the actual position of any point within the area of study and interpret the aerial photograph as per the requirement |

| COURSE CODE | COURSE NAME | COURSE OUTCOMES |
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| MGAG-105 | ENVIRONMENTAL GEOGRAPHY | **KNOWLEDGE GAINED**:<br>• Gain knowledge about components of environment; environmental ethics and its application in environmental management; different approaches to environment; climatic hazards and its impact on the society; ecosystem and energy balance; causes of environmental degradation and its mitigation strategies; EIA and EMP<br><br>**SKILL DEVELOPED**:<br>• Identify the aspects of various environmental issues for their respective field of research in applying different ecological approach and establish mitigation measures for planners and administrators<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge gained to apply and analyze the problems scientifically on their research work related to sustainable environmental planning |
| MGAG-106 | URBAN GEOGRPHY | **KNOWLEDGE GAINED**:<br>• Gain knowledge about the significance of urban geography as an emerging discipline for research and apply the changing approaches to study the various dimensions namely demographic aspects, urban morphology, application of different models and sustainable urban planning<br><br>**SKILL GAINED**:<br>• Identify the aspects of various urban issues for their respective field of research in applying different structural and behavioral approach and establish the different parameters of sustainable development goals for future growth<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge gained to apply and analyze the problems scientifically on research work related to contemporary urban issues |
| MGAG-107 | TRANSPORT AND MARKETING GEOGRPAHY | **KNOWLEDGE GAINED:**<br>• Gain knowledge in measuring centrality and nodality in connection with transport accessibility and connectivity; various transport planning from global and national perspective; various social and behavioral approaches to study market; applications of models in studying interaction and delimitation of various types of market based on previous models and theories |

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| | | **SKILLS GAINED:**<br>• Identify the aspects of various transport and market issues for their respective field of research in applying different social and behavioral approach and establish the different parameters in making transport and market planning<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge gained to apply and analyze the problems scientifically on their respective research work related to transport and market geography |
| **MGAG-108** | **ADVANCED GEOMORPHOLOGY** | **KNOWLEDGE GAINED:**<br>• Gain knowledge on the fluvial dynamics; channel characteristics and slope development processes focusing on geomorphic threshold and extreme events using both conventional and advanced techniques<br><br>**SKILLS GAINED:**<br>• Identify the theoretical and practical concepts of fluvial dynamics; channel morphology, slope development process with the help of both conventional and advanced techniques<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge gained to apply and analyze the problems scientifically on their respective research work related to advanced geomorphology |
| **MGAG-109** | **AGRICULTURAL GEOGRAPHY** | **KNOWLEDGE GAINED:**<br>• Gain knowledge on the development and recent trends of agricultural growth at the global and national level; schemes of agricultural system; qualitative and quantitative techniques; application of models to study crop combination, concentration, diversification; problem of Indian agriculture and various rural development programmes<br><br>**SKILLS GAINED:**<br>• Identify the problems related to agriculture which forms the basis of the Indian economy and study the suitable pragmatic techniques which can be applied in their field of research<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge gained to apply and analyze the problems scientifically on their respective research work related to agricultural geography |

| MGAG-110 | POPULATION GEOGRAPHY | **KNOWLEDGE GAINED:**<br>• Gain knowledge on different aspects of population geography focusing on characteristics, dynamics, problems and quality of human resource in India focusing on UNO's World population plan of action<br><br>**SKILLS GAINED:**<br>• Identify the problems related to population dynamics and set plans to improve the Quality of Life especially of the marginalized section of the society<br><br>**COMPETENCY DEVELOPED:**<br>• Use the knowledge gained to apply and analyze the problems scientifically on their respective research work related to Population dynamics |
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## COURSE OUTCOMES: TWO YEARS M.PHIL PROGRAMME
### SEMESTER—III

| COURSE CODE | COURSE NAME | COURSE OUTCOMES |
|---|---|---|
| AECGAG-111<br>AECGAG-112<br>AECGAG-113<br>AECGAG-114 | SEMINAR<br>GROUP DISCUSSION<br>ARTICLE REVIEW<br>RESEARCH<br>PROPOSAL<br>WRITING | **KNOWLEDGE GAINED**:<br>• The Ability Enhancement Course has been designed in such a way that the students becomes competent to attends academic seminars, take active participation in group discussions, write articles in journals and write the research proposal in a systematic and scientific manner<br><br>**SKILL DEVELOPED**:<br>• Gain skills to communicate, write research articles<br><br>**COMPETENCY DEVELOPED**:<br>• Use the knowledge they have gained to participate, interact in Seminars, Group Discussions and write scientific papers |

## COURSE OUTCOMES: TWO YEARS M.PHIL PROGRAMME
### SEMESTER—IV

| COURSE CODE | COURSE NAME | COURSE OUTCOMES |
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| DGAG-401 | DISSERTATION WORK | **KNOWLEDGE GAINED**:<br>• The knowledge the students have gained in the previous three semesters are applied to write their final dissertation<br><br>**SKILL GAINED**:<br>• Aptitude to do individual research work<br><br>**COMPETENCY DEVELOPED**:<br>• Ability to go for further research work in their area of interest |