VIDYASAGAR UNIVERSITY

Midnapore, West Bengal

PROPOSED CURRICULUM&SYLLABUS (DRAFT) OF

BACHELOR OF SCIENCE (HONOURS)

MAJOR IN GEOGRAPHY

4-YEAR UNDERGRADUATE PROGRAMME

(w.e.f. Academic Year 2023-2024)

Based on

Curriculum & Credit Framework for Undergraduate Programmes

(CCFUP), 2023& NEP, 2020

VIDYASAGAR UNIVERSITY
BACHELOR OF SCIENCE (HONOURS) MAJOR IN GEOGRAPHY
(under CCFUP, 2023)

Level	YR.	SEM	Course Type	Course Code	Course Title	Credit	L-T-P	Marks		
								CA	ESE	TOTAL
B.Sc. (Hons.)	3rd	V	SEMESTER-V							
			Major-8	GEOHMJ08	T: Disaster Management; P: Practical	4	3-0-1	15	60	75
			Major-9	GEOHMJ09	T: Economic Geography; P: Practical	4	3-0-1	15	60	75
			Major-10	GEOHMJ10	P: Applied Geography; P: Practical	4	3-0-1	15	60	75
			Major Elective-01	GEOHDSE1	T: Political Geography Or Geography of Health and Wellbeing	4	3-1-0	15	60	75
			Minor-5 (Disc.-I)	GEOMIN05	T: Hazards and Disaster Studies *(To be taken from other Discipline)*	4	3-1-0	15	60	75
					Semester-V Total	20				375
		VI	SEMESTER-VI							
			Major-11	GEOHMJ11	T: Population Geography; P: Practical	4	3-0-1	15	60	75
			Major-12	GEOHMJ12	T: Remote Sensing and GIS; P: Practical	4	3-0-1	15	60	75
			Major-13	GEOHMJ13	T: Field Work (Practical)	4	0-0-4	15	60	75
			Major Elective-02	GEOHDSE2	T: Geoheritage and Geotourism Or Social and Cultural Geography	4	3-1-0	15	60	75
			Minor-6 (Disc.-II)	GEOMIN06	T: Development Studies in Geography *(To be taken from other Discipline)*	4	3-1-0	15	60	75
					Semester-VI Total	20				375
					YEAR-3	40				750
			Eligible to be awarded Bachelor of Science in Geography *on Exit*			126	Marks (Year: I+II+III)			2325

MJ = Major, MI = Minor Course, DSE = Discipline Specific Elective Course, CA= Continuous Assessment, ESE= End Semester Examination, T = Theory, P= Practical, L-T-P = Lecture-Tutorial-Practical

SEMESTER-V

MAJOR (MJ)

MJ-8: Disaster Management **Credits 04 (Full Marks: 75)**

Course Outcomes:

After the completion of course, the students will have ability to:

1. *Understand processes and impact of disaster*
2. *Understand both the natural and man-made disaster and human negligence in context of environment*
3. *Understand the strategies of Disaster Management to minimize the disaster risk/ Risk from Disaster.*

MJ-8T: Disaster Management (Theory) **Credits 03**

Course contents:

1. Classification of hazards and disasters.
2. Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms.
3. Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.
4. Case studies on Earthquake, landslide, cyclone, flood, lightning
5. Fire: Factors, vulnerability, consequences and management

MJ-8P: Disaster Management (Practical) **Credits 01**

Course Outline:

1. Hazards and disaster mapping: Data and techniques.
2. Application of remote sensing in hazard and disaster management.
3. Multicriteria Vulnerability Index: coastal vulnerability index (CVI).

Suggested Readings

1. Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
3. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.

4. Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
6. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
7. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher-
9. I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

MJ-9: Economic Geography **Credits 04 (FM: 75)**

Course Outcome:

After the completion of course, the students will have ability to:
1. Distinguish different types of economic activities and their utilities.
2. Appreciate the factors responsible for the location and distribution of activities.
3. Examine the significance and relevance of theories in relation to the location of different economic activities.

MJ-9T: Economic Geography (Theory) **Credits 03**

Course contents:

1. Meaning and approaches to Economic Geography. Concept of economic activities, Goods and services, production, exchange and consumption, economic man, theories of choices, Economic distance and transport costs
2. Factors affecting location of economic activity with special reference to agriculture (Von Thunen), and industry (Weber).
3. Primary activities: Subsistence and commercial agriculture (Case studies of tea plantation in India and mixed farming in Europe), forestry, fishing and mining
4. Secondary activities: Manufacturing (cotton textile, iron and steel), concept of manufacturing regions, special economic zones and technology parks
5. Tertiary activities: transport, trade and services. Transnational sea-routes, railways and highways with reference to India. International agreements and trade blocs: WTO, BRICS, and OPEC

MJ-9P: Economic Geography (Practical) **Credits 01**

Course Outline:

1. Crop combination mapping (Weaver's model)
2. Representation of state-wise variation of occupation structure.
3. Transport network analysis: detour index and shortest path analysis.

Suggested Readings

1. Siddhartha K. (2018) Economic Geography. Kitab Mahal
2. Leong G. C & Morgan GC (1982) Human and economic Geography. Oxford India
3. Nag PK (2014) Economic Geography: A study of Resources. New central Book Agency
4. Memoria CB (2022) Economic and Commercial Geography of India. Shivalal Agarwala & Company

5. Alexander J. W., 1963: Economic Geography, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
6. Coe N. M., Kelly P. F. and Yeung H. W., 2007: Economic Geography: A Contemporary Introduction, Wiley-Blackwell.
7. Hodder B. W. and Lee Roger, 1974: Economic Geography, Taylor and Francis.
8. Combes P., Mayer T. and Thisse J. F., 2008: Economic Geography: The Integration of Regions and Nations, Princeton University Press.
9. Wheeler J. O., 1998: Economic Geography, Wiley.
10. Durand L., 1961: Economic Geography, Crowell.
11. Bagchi-Sen S. and Smith H. L., 2006: Economic Geography: Past, Present and Future, Taylor and Francis.
12. Willington D. E., 2008: Economic Geography, Husband Press

MJ-10: Applied Geography **Credits 04(FM: 75)**

Course Outcome:

- *Develop critical thinking and analytical skills in interpreting spatial patterns and environmental processes.*
- *Apply geographical concepts and methodologies to real-world problems like urbanization, climate change, and resource management.*
- *Gain interdisciplinary knowledge to address socio-economic and environmental challenges.*
- *Prepare for careers in research, teaching, urban planning, disaster management, environmental consultancy.*

MJ-10T: Applied Geography (Theory) **Credits 03**

Course contents:

1. Scope of Applied geography with Geospatial and web-based technology
2. Applied geography in water management: surface and ground water in rural and urban areas
3. Applied geography in Engineering interventions of rivers and coast: Impact assessment and restoration
4. Applied geography in Hazard management: Soil erosion, landslide and flood
5. Applied geography in Social welfare: Inequality, poverty, crime

MJ-10P: Applied Geography (Practical) **Credits 01**

Students should select any one out of following options for mapping exercise and interpretation

1. Landuse mapping and interpretation at Cadastral-level/ Ward-Level
2. Soil Mapping
3. Vegetation Mapping,
4. Micro-Watershed Mapping,
5. Landscape Mapping

References:

1. Alex, S. (2008). Global Perspectives in the Geography Curriculum. Routledge. Talyor & Francis Group.
2. Basu, R & Bhaduri, S (2007). Contemporary Issues and Techniques in Geography. Progressive Publishers
3. Bunge, W. (1973) The Geography. The professional Geographers 25, 331-7.
4. Castree, N. (2004). Environmmental Issues: signals in the noise? Progress in Human Geography 28, 70-90.

5. Chisholm, M. (1971) Geography and the question of 'Relevance'. Area 3, 65-8.
6. Coppock, J.T. (1974) Geography and the public policy : Challenges opportunities and
7. Frazier J. W. (2004) Applied Geography in 20th century North America—A perspective.
    - Geography, 1 (1) 2015, 1-7.
8. Gould, P. R. (1999) Becoming a geographer, Syracuse : Syracuse University Press.
9. Harvey, D. (1984) On the history and present condition of geography : an historical
10. Hubbard, P., Kitchin, R., Bartley, B., & Fuller, D. (2005). Thinking Geographically. Space, Theory and Contemporary Human Geography, Continuum: London
11. implications. Transactions, Institute of British Geographers 63, 1-16.
12. In A. Bankktin and L.J. Gibson, (eds.) Applied Geography : A World perspective Dortrecht, The Netherlands : Kluwer, 187-210.
13. Johnston R.J. and Sidaway, J.D. (2004) Geography and Geographers—Anglo-American Human Geography Since 1945, London : Arnold.
14. Lee, J. and Sui, D. (2015) From Applying Geography to Applied Geography, Applied
15. Maiti, R. and Moitra Maiti M. 2018 Development of Geographical Thought: Contextualisation and Synthesis of Philosophies. Nabodaya Publications, Kolkata.
16. Mandal, R.B. & Sinha, V.N.P. (2016). Recent Trends and Concepts in Geography (3 VOL SET). Routledge. Talyor & Francis Group. materialist manifesto. The Professional Geographers 36, 1-11.
17. Melvin, A. (1973). Geography and Contemporary Issues: Studies of Relevant Problems. John Wiley & Sons.
18. Stamp, L.D. (1960) Applied Geography. HarmondsWorth : Penguin book

MAJOR ELECTIVE (DSE)

Major Elective -1: Political Geography **Credits 04(Full Marks: 75)**

Course Outcomes:

After the completion of course, the students will have ability to:

1. Learn the concept of nation and state and geopolitical theories
2. Understand the different dimensions of electoral geography and resource conflicts
3. Have sound knowledge of politics of displacement, focusing on dams and SEZ.

MJ DSE-1T: Political Geography (Theory) **Credits 04**

Course contents:

1. Concept of State, Nation and Nation State. Attributes of State: Frontiers, Boundaries, Enclave and exclave.
2. Politics of resources: Oil and water; Inter-state dispute on water resources in India. International water dispute between India and neighbours.
3. Geographical basis of Indian federalism; Emergence of states since independence. Electoral Geography: Geography of Voting, Geographic Influences on voting pattern, Gerrymandering
4. Geopolitics. Geostrategic theories and present relevance: Heartland and Rimland.
5. Politics of Displacement: Issues of relief, compensation and rehabilitation: with reference to Dams and Special Economic Zones of India

References:

1. Adhikari, S. (2007): Political Geography, Rawat Publication, NewDelhi.
2. Adhikari, S. (2013): Political Geography of India –Sharda Pustak Bhawan, Allahabad.
3. Agnew, J., (2002): Making Political Geography, Arnold.
4. Agnew, J., Mitchell K. and Total G., (2003): A Companion to Political Geography, Blackwell.
5. Cox, K. R., Low M. and Robinson J., (2008): The Sage Handbook of Political Geography, Sage Publications.
6. Cox, K., (2002): Political Geography: Territory, State and Society, Wiley-Blackwell
7. Gallaher, C., et al, (2009): Key Concepts in Political Geography, Sage Publications.
8. Glassner, M., (1993): Political Geography, Wiley.
9. Hodder, Dick, Sarah, J, Llyod and Keith, S, McLachlan., (1998): Land Locked States of Africa and Asia (vo.2), Frank Cass
10. Jones, M., (2004): An Introduction to Political Geography: Space, Place and Politics, Routledg
11. Painter, J. and Jeffrey, A., (2009): Political Geography, Sage Publications.
12. Taylor, P. and Flint, C., (2000): Political Geography, Pearson Education.
13. Verma, M. K., (2004): Development, Displacement and Resettlement, Rawat Publications, Delhi.

OR

Major Elective -1: Geography of Health and Wellbeing **Credits 04(Full Marks: 75)**

Course Objectives:

This course aims to attain following learning objectives:

1. Various dimensions of health geography and its linkages with environment.
2. Detailed analysis of environment and health quality and exposure to risk.
3. Understanding of the relationship between climate change and human health.

Course Outcomes:

After the completion of course, the students will have ability to:

1. Understand the key concepts related to health and its driving forces
2. Identify the linkages between the health, environment, exposure and risk.
3. Explain the relationships among health and disease pattern in environmental context with reference to climate change

MJ DSE-1T Geography of Health and Wellbeing (Theory) **Credits 04**

Course contents:

1. Definition, scope and trends of Geography of Health. Linkages of health with environment and development. Parameters of health and wellbeing
2. Geographical perspective of health in developed and developing countries. Health and disease pattern in Environmental Context with special reference to India
3. Factors influencing health and wellbeing. Health in relation to population dynamics, urbanization, inequality, malnutrition and poverty
4. Exposure and Health Risks: Air pollution; household wastes; water; housing; workplace.
5. Climate change and morbidity. Biological agents of disease. WHO programmes of health and wellbeing

Suggested Reference:

1. Akhtar Rais (Ed.), 1990: Environment and Health Themes in Medical Geography, Ashish Publishing House, New Delhi.
2. Avon Joan L. and Jonathan A Patzed.2001: Ecosystem Changes and Public Health, Baltimin, John Hopling Unit Press (Ed).
3. Bradley, D., 1977: Water, Wastes and Health in Hot Climates, John Wiley Chichesten.
4. Christaler George and Hristopoles Dionissios, 1998: Spatio Temporal Environment Health Modelling, Boston Kluwer Academic Press.

5. Cliff, A.D. and Peter, H., 1988: Atlas of Disease Distributions, Blackwell Publishers, Oxford.
6. Gatrell, A., and Loytonen, 1998: GIS and Health, Taylor and Francis Ltd, London.
7. Hardham T. and Tannav M., (Eds): Urban Health in Developing Countries; Progress, Projects, Earthgoan, London.
8. Murray C. and A. Lopez, 1996: The Global Burden of Disease, Harvard University Press.
9. Moeller Dade wed., 1993: Environmental Health, Cambridge, Harward Univ. Press.
10. Phillips, D.and Verhasselt, Y., 1994: Health and Development, Routledge, London.
11. Tromp, S., 1980: Biometeorology: The Impact of Weather and Climate on Humans and their Environment, Heydon and Son.

MINOR (MI)

Minor (MI) -5: Hazards and Disaster Studies **Credits 04(Full Marks: 75)**

Minor (MI) -5: Hazards and Disaster Studies (Theory) **Credits 04**

Course Outcome

After completion of this course students will be able to

1. Differentiate between hazard and disaster and geographical perspectives of each disaster
2. Nature, distribution and impacts of disasters in India
3. Management strategy under institutional framework as well as community based management strategy

Course contents:

1. Hazards, Risk, Vulnerability and Disasters: Definition and Concepts.
2. Geographical Context of Hazards and Disasters in India: Causes, Impact, Distribution and Mapping: Flood and Drought in reference to the climate extremes. vulnerability and exposure to hazards
3. Disasters in India: Causes, Impact, Distribution and Mapping: Earthquake, Landslide and Cyclone.
4. Human-induced hazards and disasters: Causes, Impact, of hazards and disasters.
5. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During Disasters

Suggested Readings:

1. Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
3. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
4. Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
6. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.

7. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

SEMESTER-VI

MAJOR (MJ)

MJ-11: Population Geography **Credits 04 (Full Marks: 75)**

Course Objectives:

This course aims to attain following learning objectives:

1. Various dimensions of the geographical features of India and their spatial distribution.
2. Detailed analysis of economic resources of India
3. Understanding of regional divisions of India.

Course Outcomes:

After the completion of course, the students will have ability to:

1. Learn the role of demography and population studies as distinct fields of human geography
2. Have sound knowledge of key concept, different components of population along with its drivers
3. Examine population dynamics and characteristic with contemporary issues

MJ-11T: Population Geography (Theory) **Credits 03**

Course contents:

1. Scope, development and recent trends of population geography. Relation between population geography and demography. Sources and structure of population data: Census, NSSO and others, Determinants of population growth. Measurements of fertility and mortality.
2. Population composition and structure: Types, spatial and temporal variation and determinants of age, sex, literacy, occupation and rural-urban ratio
3. Theories of population growth (Malthus and Marx), Demographic transition model. Migration: Causes, types and patterns
4. Concept of optimum population, human development index and its components.
5. Population policies in developed and less developed countries. India's population policies. Population and development: population-resource regions.

MJ-11P: Population Geography (Practical) **Credits 01**

Course Outline:

1. Household survey techniques
2. Measures of population dynamics: CBR, TFR, MR, ASFR, ASMR, IMR, MMR from NSSO/Census data.
3. Identification of center point of population-region by mean center analysis.

Suggested Readings:

1. Barrett H. R., 1995: Population Geography, Oliver and Boyd.
2. Bhende A. and Kanitkar T., 2000: Principles of Population Studies, Himalaya Publishing House.
3. Chandna R. C. (2018) Geography of Population: Concepts, Determinants and Patterns. Kalyani
4. Hassan M. (2007) Population Geography. Rawat publication
5. Majumdar, P.K (2010): Fundamentals of Demography, Rawat publication, Jaipur
6. Chandna R. C. and Sidhu M. S., 1980: An Introduction to Population Geography, Kalyani Publishers.
7. Clarke J. I., 1965: Population Geography, Pergamon Press, Oxford.
8. Jones, H. R., 2000: Population Geography, 3rd ed. Paul Chapman, London.
9. Lutz W., Warren C. S. and Scherbov S., 2004: The End of the World Population Growth in the 21st Century, Earthscan
10. Newbold K. B., 2009: Population Geography: Tools and Issues, Rowman and Littlefield Publishers.
11. Pacione M., 1986: Population Geography: Progress and Prospect, Taylor and Francis.
12. Wilson M. G. A., 1968: Population Geography, Nelson.

MJ-12: Remote Sensing and GIS **Credits 04 (Full Marks: 75)**

Course Objectives:

This course is designed to learn the fundamentals of remote sensing and GIS. The focus in much on the remote sensing part, yet the basic idea of GIS is also included. The objectives of the course are -

- To build knowledge about the working principles of remote sensing.
- To gain a comprehensive understanding about the satellite image processing.
- To gain a working knowledge of the GIS

Learning Outcome:

Upon completion of this course, students will be able to -

- Deal with satellite imageries.
- Perform analytical techniques of digital image processing
- Perform image classification
- Deal with the data structures in GIS environment.

MJ-12T: Remote Sensing and GIS (Theory) **Credits 03**

Course contents:

1. Basic concepts: definition, sources of energy, interaction with land and atmosphere. Types of remote sensing based on energy sources.
2. The sensing system: platforms - based on orbital heights and synchronization parameters, sensor types - whisk-broom and push-broom sensing systems, the resolutions of sensors and platforms.
3. Image interpretation keys, the concept of pixel - the unit of digital image, reflectance and digital number of a pixel, properties of a multispectral image, concept of true and false color composition.
4. Digital image processing: dark object subtraction (DOS) for reducing atmospheric interferences, linear contrasts stretching. Digital image as a matrix of numbers, mathematical operations - addition, multiplication, subtraction, and division. Fundamental concepts of image classification.
5. Basics of Geographic information systems: concepts and components, GIS data structure - raster and vector. Topology of vector data, locational and attribute data, database management system.

MJ-12P: Remote Sensing and GIS using software Lab (Practical) Credits 01

Course Outline:

1. Preparation of TCC/FCC; DOS and contrast stretching, Generation of spectral signatures of different physical entities; generation of descriptive statistics of each layer of image and their representation, executing basic band rationing method to compute vegetation index;
2. Preparation of LULC layer from a satellite image (supervised/unsupervised classification).
3. Map georeferencing, digitization, and preparation of map layout.

Suggested Readings:

1. John R Jenson. 2013. Remote sensing of the environment: an earth resource perspective, Pearson Education India.
2. George Joseph and C Jeganathan. 2018. Fundamentals of remote sensing (3rd edition), The Orient Blackswan, India.
3. Lillesand, Kiefer, Chipman. 2011. Remote Sensing and Image Interpretation, 6ed (WSE), Wiley, India.
4. John R. Jensen. 2017. Introductory Digital Image Processing: A Remote Sensing Perspective. Pearson Education, India.
5. Surekha Borra, Rohit Thanki, and Nilanjan Dey. 2019. Satellite Image Analysis: Clustering and Classification (SpringerBriefs in Applied Sciences and Technology), Springer, India.
6. Marcelo de Carvalho Alves, Luciana Sanches. 2023. Remote Sensing and Digital Image Processing with R, CRC Press.
7. John A. Richards. 2012. Remote Sensing Digital Image Analysis: An Introduction, Springer.
8. Change K. 2019. Introduction to Geographic Information Syatem, 9th Edition, McGrawHill Education, US.
9. Kurt Menke. 2022. Discover QGIS 3.x - Second Edition (https://locatepress.com/book/dq32).
10. Scott Madry. 2021. Introduction to QGIS (https://locatepress.com/book/itq) .
11. David García-Álvarez, María Teresa Camacho Olmedo, Martin Paegelow, Jean François Mas. 2022. Land Use Cover Datasets and Validation Tools. Validation Practices with QGIS (https://link.springer.com/book/10.1007/978-3-030-90998-7)
12. Hans van der Kwast, Kurt Menke. 2022. QGIS for Hydrological Applications - Second Edition (https://locatepress.com/book/hyd2)
13. Shammunul Islam. 2018. Hands-On Geospatial Analysis with R and QGIS (https://www.packtpub.com/application-development/hands-geospatial-analysis-r-and-qgis)
14. Kurt Menke, GISP et al. 2016. Mastering QGIS - Second Edition (https://www.packtpub.com/big-data-and-business-intelligence/mastering-qgis-second-edition)
15. Anita Graser and Gretchen N. Peterson. 2016. QGIS Map Design (http://locatepress.com/qmd)
16. Anita Graser. 2016. Learning QGIS - Third Edition (https://www.packtpub.com/big-data-and-business-intelligence/learning-qgis-third-edition)
17. Alexander Bruy, Daria Svidzinsk. 2015. QGIS By Example (https://www.packtpub.com/application-development/qgis-example)
18. Rüdiger Thiede, Tim Sutton, Horst Düster, and Marcelle Sutton. 2013. The QGIS Training Manual - A Comprehensive Introduction to Quantum GIS (http://locatepress.com/qtm)

MJ-13: Fieldwork **Credits 04 (Full Marks: 75)**

MJ-13T: Fieldwork (Practical) **Credits 04**

Course Objectives:

1) This course shall introduce the basic concepts in field work in geographical studies.
2) This paper shall elucidate about defining the field and identifying the case studies, field techniques.
3) This course shall provide detailed understanding related to questionnaire development and preparation of the field report

Course Outcome:

After the completion of course, the students will have ability to:

1. Conduct proper field work for the collection of primary data to bring out grassroots realities.
2. Make use of proper tools and surveying methods for measurement in context of collection and processing of data.
3. Prepare a report based on field data.

Course Outline:

1. For research in physical geography: students should take a field visit for a detailed survey on the selected problem following the field protocol. For secondary data sources, students may use toposheets, satellite images, aerial photos, LULC and soil maps, geological maps, cadastral maps, and data from other relevant sources. For socio-economic research: each student will prepare an individual report based on primary data collected from field surveys and secondary data collected from different sources for either a rural area (*mouza*) or an urban area (municipal ward) based on cadastral or municipal maps to study specific problems.
2. The duration (minimum 1 week) of the field work shall be decided by the guide and concerned students as per requirement to fulfill objectives.
3. The report should be in English on A4 size paper in candidate's own words within 5,000 to 8,000 words excluding figures, tables, photographs, maps, references and appendices
4. A copy of the bound report, duly signed by the concerned teacher, should be submitted
5. To be evaluated based on the presentation.

MAJOR ELECTIVE (DSE)

Major Elective -2: Geoheritage and Geotourism **Credits 04 (Full Marks: 75)**

Course Objectives:

1. The course will provide a capacity to understand a systematic analysis of methods and resources supporting geo-conservation and geo-tourism worldwide.
2. Assessment of Geoheritage sites

Course outcome:

1. After completion of the course, the student should be familiar with the general concepts of the geological and geomorphological heritage of India
2. General knowledge about the importance of geological heritage
3. The training of personnel for professional geo-heritage jobs

MJ DSE-2T: Geoheritage and Geotourism (Theory) **Credits 04**

Course contents:

1. Characteristics of a geo-tourism site: Its environment, heritage, aesthetics, culture, and well-being of stakeholders
2. The relations between geo-heritage and Geo-tourism: Tourism link between the geo-heritage and geo-tourism through a series of examples of geo-tourism sites.
3. Managing geo-tourism: Impacts of visitors and management of geo-tourism sites, examples from India.
4. Geo-heritage and Resilience: understanding geo-hazards and geo-conservation practices for resilience building, dissemination of knowledge and education through geo-tourism
5. Geomorphosite assessment techniques: Ratio between environmental, aesthetic, heritage and economic values of a geo-site. Quantitative evaluation of pedo-geomorphological and petrological sites.

References:

1. Geo-heritage and Geo-tourism resources – Nicoletta Santangelo and Attore Valente – M.d.p.i AG (25th August, 2020) ISBN number- 10:3039367889 (362 pages) – Hard cover
2. Geodiversity: Valuing and conserving abiotic nature – Gray, M. – John Wiley and Sons. 2004. ISBN number 0-470-09081-2
3. Vishwas S. Kale. 2014. Landscape and landforms of India. Springer

OR

Major Elective -2: Social and Cultural Geography **Credits 04(Full Marks: 75)**

Course Objectives:

1. This course shall introduce definition, components of culture.
2. This paper shall elucidate about space and society, cultural regions, race, religion and language.
3. This course shall provide detailed understanding related to world population growth, population theory and social patterns and processes.

Course outcome:

1. This paper shall enable the students to understand the basic concepts, nature and scope of cultural geography.
2. This course shall enable the students to appreciate the interrelationships between space and society, characteristics of cultural regions, race, religion and language.
3. Students shall be well-versed with the world population growth patterns, demographic transition theory, social patterns and process.

MJ DSE-2T: Social and Cultural Geography (Theory) **Credits 04**

Course contents:

1. Social and Cultural Geography: Concept, Origin, Nature and Scope.
2. Concept of Space, Social differentiation and stratification; social processes.
3. Elements of Culture : Language , Religion, Caste, Class, Race and Gender and their Spatial distribution in World and India
4. Peopling Process of India: Technology and Occupational Change; Migration.
5. Social groups, social behaviour and contemporary social environmental issues with special reference to India.

Reference Books.

1. Ahmed A., 1999: Social Geography, Rawat Publications.
2. Casino V. J. D., Jr., 2009) Social Geography: A Critical Introduction, Wiley Blackwell.
3. Cater J. and Jones T., 2000: Social Geography: An Introduction to Contemporary Issues, Hodder Arnold.
4. Holt L., 2011: Geographies of Children, Youth and Families: An International Perspective, Taylor & Francis.
5. Panelli R., 2004: Social Geographies: From Difference to Action, Sage.
6. Rachel P., Burke M., Fuller D., Gough J., Macfarlane R. and Mowl G., 2001: Introducing Social Geographies, Oxford University Press.
7. Smith D. M., 1977: Human geography: A Welfare Approach, Edward Arnold, and London.

8. Smith D. M., 1994: Geography and Social Justice, Blackwell, Oxford.
9. Smith S. J., Pain R., Marston S. A., Jones J. P., 2009: The SAGE Handbook of Social Geographies, Sage Publications.
10. Sopher, David (1980): An Exploration of India, Cornell University Press, Ithasa
11. Valentine G., 2001: Social Geographies: Space and Society, Prentice Hall
12. Johnston, R; Gregory, D, Pratt, G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication, New Jersey.
13. Jordan-Bychkov, et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.

MINOR (MI)

Minor (MI) -6: Development Studies in Geography **Credits 04(Full Marks: 75)**

Minor (MI) -6: Development Studies in Geography (Theory) **Credits 04**

Course Outcomes:

After the completion of the course, the students will have the ability to:

1. Appreciate the concepts, needs and various approaches to development;
2. Understand the economic policies and programmes of rural and urban development in India;
3. Appreciate the tenets and goals of sustainable development.

Course contents:

1) Concept of development, indicators of development; changing concept of development and underdevelopment; Regional disparities in India
2) Rural development strategies in India. Evaluation of the rural development programmes in India: PMGSY, MGNREGA, PMGAY, NRHM
3) Urban development: need, principles and methods; challenges and opportunities of urban development
4) Urban development programmes in India: JNNURM, AMRUT, Housing for All 2022, Smart city mission, HRIDAY.
5) Sustainable development: Definition and components; MDGs, SDGs

Reference:

1. Gilg A. W., 1985: An Introduction to Rural Geography, Edwin Arnold, London.
2. Krishnamurthy, J. 2000: Rural Development - Problems and Prospects, Rawat Publs., Jaipur
3. Lee D. A. and Chaudhri D. P. (eds.), 1983: Rural Development and State, Methuen, London.
4. Misra R. P. and Sundaram, K. V. (eds.), 1979: Rural Area Development: Perspectives and Approaches, Sterling, New Delhi.
5. Misra, R. P. (ed.), 1985: Rural Development: Capitalist and Socialist Paths, Vol. 1, Concept, New Delhi.
6. Palione M., 1984: Rural Geography, Harper and Row, London.
7. Rapley, John (2007) Understanding Development: Theory and Practice in the 3rd World. Lynne Rienner, London.

8. Baker, Susan (2006) Sustainable Development. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, "The concept of sustainable development").
9. Singh, R.B. (Eds.) (2001) Urban Sustainability in the Context of Global Change, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi
10. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
11. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).