Department of Geography

Lesson plan- 2022-23 (Even Semester)

Geographical Thought, GEOG-401

Class- M. Sc. II, Semester-4

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| Month/Year | Topics to be covered | Co-curricular Activities |
| February, 2023 | Classification of knowledge,  Nature of Geography and its place among sciences  Nature of Geographic knowledge during ancient  -Greek and Roman Period  -medieval (Arab) period | Assignment, class test,  Topical presentations  Etc. |
| March, 2023 | Foundation of Modern Geography-contributions  -Varenius, Kant, Humboldt and Ritter  Emergence of Geography as a study of  -physical features  -chorology  -landscapes  Concepts and dualism in Geography:  -Environmental Determinism and Possibilism,  -Physical vs Human Geography, |
| April, 2023 | Concepts and dualism in Geography  -Systematic vs Regional Geography  Areal Differentiation  Quantitative Revolution-Emergence of theoretical geography  Positivist Explanations in Geography-  -Laws, theories and models  -inductive & deductive logic |
| May, 2023 | Behavioral and Humanistic Perspectives in Geography  Social Relevance in Geography- Welfare, Radical and Feminist Perspectives  Postmodernism and Geography  Revision |

Name & Signature of the Teacher

Department of Geography

Lesson plan- 2022-23 (Even Semester)

Hydrology and Oceanography, GEOG-402

Class- M. Sc. II, Semester-4

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| Month/Year | Topic to be covered | Co- Curricular Activity |
| February, 2023 | Definition, nature, scope and historical development of hydrology  Relationship of hydrology with other physical sciences  Hydrological cycle,  estimation of global water budget,  human impact on hydrological cycle | PPT Presentation |
| March, 2023 | Rainfall: frequency, intensity and measurement,  accuracy of rainfall measurement,  determination of average rainfall (Arithmetic mean, Theiesson polygon, isohytel methods),  variations in rainfall and world distribution  Sources and measurement of stream flow,  hydrograph and its components,  analysis of hydrograph,  factors affecting the hydrograph shape,  methods of hydrograph separation,  variations in runoff, rainfall-runoff relationship | Quiz competition |
| April, 2023 | Major topographic features of ocean basins, bottom relief of –  -Atlantic, Pacific and Indian oceans  Sources, classification and distribution of ocean deposits,  Corals-origin, types and conditions for development  Theories of the origin of coral reefs (Subsidence and standstill) | PPT Presentation |
| May, 2023 | Origin, causes, types and effects of the ocean currents,  Currents of the Atlantic, Pacific and Indian oceans.  Oceanic temperature: distribution and causes of variation  Composition of oceanic water and distribution of salinity  Revision | GD |

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Department of Geography

Lesson plan- 2022-23 (Even Semester)

Regional Geography of India (with special reference to Haryana), GEOG-403(i)

Class- M. Sc. II, Semester-4

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| Month/Year | Topics to be covered | Co-curricular activities |
| February, 2023 | * Concept and types of regions and regionalization * Regional Diversities in India | Assignment, class test,  Topical presentations  Etc |
| March, 2023 | * Critical Review of schemes of regionalization of India: Baker and Stamp, Pithawala, Spate and Learmonth and R L Singh * Macro Regions of India: Himalayas, Indo-Ganga Plains, Indian Peninsula physical and socio-economic characteristics * Bases of demarcation of Meso Regions in India * Schemes of socio-economic regionalization: * -Asok Mitra, P.Sengupta & |
| April, 2023 | * Schemes of socio-economic regionalization * -Galina Sadasyuk, B.K. Roy * Physical and economic diversities in Haryana * -Relief, Climate, Drainage, Groundwater, Soils and Natural Vegetation * -Agriculture and its spatial organization * -Industry, Transport and Communication |
| May, 2023 | * Demographic characteristics and diversities in Haryana * Social diversities in terms of education and health in Haryana * Social region of Haryana * Revision, discussion, assignments and tests |

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Department of Geography

Lesson plan- 2022-23 (Even Semester)

Urbanization in India**,** GEOG-403(v)

Class- M. Sc. II, Semester-4

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| Month/Year | Topics to be covered | Co-curricular activities |
| February, 2023 | * History of urbanization in India * Urbanization during the Ancient period, * Urbanization during the Medieval period, * Urbanization during the Colonial period * Post independence phases of urbanization | Assignment, class test,  Topical presentations  Quiz  Geographical terms and concepts demonstrations  Etc. |
| March, 2023 | * Processes of urbanization in india * Socio-cultural Processes of urbanization in india * Political Processes of urbanization in india * Economic Processes of urbanization in india * Geographical processes of urbanization in india * Patterns of urbanization in India * settlement structure, * level of urbanization, * criteria of measurement * spatial patterns of urbanization in India * Recent trends of urbanization in India |
| April, 2023 | * Urban regions of India: case studies of metropolitan regions in India * -Delhi Metropolitan Region, * Mumbai Metropolitan Region, * Kolkata Metropolitan Region * Chennai Metropolitan Region * Contemporary Urban issues * Urban poverty, * slums and urban renewal, * urban infrastructure * solid waste management |
| May, 2023 | * Role of urbanization in economic and social change * SEZ : Concept, policies and consequences * National urbanization policy   Revision, discussion, assignments and tests |

Name & Signature of the Teacher

**Lesson Plan**

**M.Sc. Geography\_4th Semester\_ Fundamental of Geographical Information Systems (Theory) (2022-23Even semester)**

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| Sr. No | Topics | No. of Days | Completed up to | Activities |
| 1 | GIS: concept, definition, and development. | 07 | 14 Aug |  |
| 2 | Hardware and software requirements for GIS environment | 07 | 10 Sept | Assignment 1 |
| 3 | Data for GIS: (i) Spatial data and their sources (ii) Non –spatial data and their sources; (iii) data structure: vector and raster | 12 | 4 Oct | Class Test1 |
| Student’s power point presentation |
| 4 | Data Base Management System; Sources of errors in GIS database. | 15 | 31 Oct | Student’s power point presentation |
| 5 | Map, scale, and map projection: Need of projection, spherical co-ordinate system andproperties. | 10 |  | Assignment 2nd |
| Student’s power point presentation |
| 6 | Integration of Remote Sensing data into GIS and its application in resource mapping, urban management, and real time mapping. | 15 |  | Class Test2 |
| 7 | Current issues in GIS. | 10 |  |  |
| 5 | Revision |  | Up to Exam |  |

Department of Geography

Lesson plan- 2022-23 (Even Semester)

Fundamental of Geographical Information Systems (Practical),GEOG-405(B)

Class- M. Sc. II, Semester-4

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| Month/Year | Topics to be covered | Co-curricular activities |
| February, 2023 | * Georeferencing * Creation of Geo-data base and shape file * Revision & Practice | Assignment, class test,  Geographical terms and concepts demonstrations  Etc. |
| March, 2023 | * On screen digitization/vectorisation of spatial data in the form of 3 layers- * -polygon, * -polyline * -point * Revision & Practice |
| April, 2023 | * Adding attributes to these layers and statistical calculations * Displaying attribute data on map by various methods * Revision & Practice |
| May, 2023 | * Preparing layout and printing of theme map * Revision, discussion practice, assignments and tests |

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