SIDDHARTH UNIVERSITY, KAPILVASTU, SIDDHARTH NAGAR (U.P.)

B.A/ B.Sc.
GEOGRAPHY
FACULTY OF ARTS

NATIONAL EDUCATION POLICY 2020

Syllabus as per the guidelines of

State Higher Education Council

(Partially modified: Board of Studies meeting on 11th July 2023)

2023

Siddhartha University, Kapilvastu,
Siddhartha Nagar, U.P
B.A/ B.SC Syllabus Structure CBCS (NEP) 2023-24
Subject: Geography

Year	Course Code	Paper Title	Theory/Practical	Credits
First		**Semester 1**		
	A110101T	Physical Geography	Theory (25 + 50)	4
	A110102P	Elements of Map and Surveying	Practical (25)	2
		Semester 2		
	A110201T	Human Geography	Theory (25 + 50)	4
	A110202P	Thematic Mapping and Surveying	Practical (25)	2
Second		**Semester 3**		
	A110301T	Environment, Disaster Management and Climate Change	Theory (25 + 50)	4
	A110302P	Statistical Techniques and Surveying	Practical (25)	2
		Semester 4		
	A110401T	Economic Geography	Theory (25 + 50)	4
	A110402P	Weather Maps, Geological Maps and Surveying	Practical (25)	2
Third		**Semester 5**		
	A110501T	Regional Geography	Theory (25 + 50)	4
	A110502T	Basics of Remote Sensing and GIS	Theory (25 + 50)	4
	A110503P	Regional Practical	Practical (25)	2
	A110504P	Tour and Tour report	Practical (25)	2
		Semester 6		
	A110601T	Geography of India	Theory (25 + 50)	4
	A110602T	Evolution of Geographical Thoughts	Theory (25 + 50)	4
	A110603P	Geographical Information System Practical (GIS)	Practical (25)	2
	A110604P	Remote Sensing (Practical)	Practical (25)	2

Marks Distribution out of 100: **25 Marks for Internal Assessment,**
+ 25 Marks for Practical Examination
+ 50 Marks for Theory Paper

B.A/B.Sc. in Geography
Program Specific Outcomes (PSOs)
Program Outcomes (After 3 Years of Study)

- This course provides the basic ideas and concepts of the Physical and human aspects of Geography.
- This course intends to orient the learner with the approaches to the broader discipline of Geography.
- It will help in developing analytical and critical thinking based on the themes and issues of geography.
- It eventually prepares the students to understand the development of the subject and delve around issues suited to the needs of the contemporary world.
- It will help in exhaustive understanding of the basic concepts of Geography and an awareness of the emerging areas of the field.
- Acquisition of in-depth understanding of the applied aspects of Geography as well as interdisciplinary subjects in everyday life.
- Improvement of critical thinking and skills facilitating.
- The application of knowledge gained in the field of Geography in the classroom to the practical solving of societal problems.
- The program orients students with tradition geographical knowledge along with advance contemporary skills like remote sensing and GIS.

Internal & External Assessment			
Internal Assessment	Marks	Practical / External Assessment	Marks
Mid Semester Test	10	Viva Voce on Practical	5
Class Attendance	05	Lab / field work	3X5=15
Assignments	10	Practical Record File	5
Total	**25**	**TOTAL**	**25**

B.A /B.Sc. 1st Year, Semester I,
Course I (Theory)

Program /Class: Certificate/ BA	Year: First	Semester: First
Subject: Geography		
Course Code: A110101T	Course Title: **Physical Geography**	
Outcomes - Students will be able to grasp Earth's geomorphic history, plate tectonics, erosion-formed landforms, climate dynamics, and global ocean systems in this course.		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per Rule	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Origin of Earth and related theories. Geological Time Scale, Interior of the Earth	8
II	Origin of continents and oceans, Isostasy, Earthquakes, and Volcanoes, Geosynclines, Plate Tectonics Theory.	8
III	Rocks, Fold, Fault, Weathering, Cycle of Erosion by Davis and Penck,	8
IV	Fluvial, Aeolian, Karst, and Glacial, Landforms	8
V	Composition and Structure of atmosphere: Insolation, Heat Budget, Atmospheric pressure and winds.	8
VI	Air masses and Fronts, cyclones and Anti-cyclones, Precipitation & and its types.	7
VII	Ocean Bottoms, temperature, and salinity, Ocean Currents and Tides, and Ocean deposits- Coral and Atolls	7
VIII	Biosphere, Biotic Succession, and Biome	6

Suggested Readings:

1. Singh, Savindra (2018), Physical Geography (Eng./Hindi) Allahabad, India: Prayag Pustak
2. Khullar, D.R. (2012). *Physical Geography*. New Delhi. India: Kalyani Publishers.
3. Thornbury, W. D. (2004): *Principal of Geomorphology*. New York, U.S.A.: Wiley.

This course can be opted as an elective by the students of following subjects: Open for all

Suggested Continuous Evaluation Methods: Assignment / Test / Quiz (MCQ) / Seminar/ Presentations.
Suggested equivalent online courses: https://onlinecourses.swayam2.ac.in/cec21_hs03/preview
https://onlinecourses.swayam2.ac.in/nos20_sc25/preview

B.A/ B.Sc. 1st Year, Semester. I

Course II (Practical)

Program/Class: Certificate/BA/ B.Sc.	Year: First	Semester: First
Subject: Geography		
Course Code: A110102P	Course Title: **Elements of Map and Surveying**	
Course Learning Outcomes : On completion of this course, learners will be able to Understand the basic idea of Map, Scale and Topographic sheets		
Credits: 2	Core Compulsory	
Max. Marks: -25	Min. Passing Marks: As per rule	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		

Unit	Topics	No. of Lectures
I	Scales–Concept and application; Graphical Construction of Plain, Comparative, and Diagonal Scales.	7
II	Map Projections: Classification, Properties and Uses; Graphical Construction of Polar Zenithal, Stereographic, Bonne's and Mercator's Projections.	7
III	Topographical Map: Coverage, Scale and Topo Symbol, Interpretation Survey of India Topo sheets. Representation of landforms by Contours.	8
IV	Construction of Profile- Serial, Projected, Superimposed and Composite and slope analysis –(Wentworth method).	8

Suggested Readings:

1. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
2. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi.
3. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.

This course can be opted as an elective by the students of following subjects: Open for all

Note: In Final Examination Student shall be examined by external and internal examiners.
Marks Distribution: Written Exam, Viva, Practical File, Map Preparation, Topo sheet interpretation.

B.A /B.Sc. 1st Year, Semester. II

Course I (Theory)

Program/Class: Certificate/BA	Year: First	Semester: Second
Subject: Geography		
Course Code:A110201T	**Course Title: Human Geography**	
Outcomes : Student will understand the Concept, Nature, Meaning and Scope of Human Geography, and also understand the natural and Cultural Changes in and around the Human Environs and their interrelationship.		
Credits: 4	Core Compulsory	
Max. Marks: -25+50	Min. Passing Marks: As per rule	

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

Unit	Topics	No. of Lectures
I	Meaning, Scope and approaches of Human Geography.	7
II	Man and Environment relationship - Determinism, Possibilism and Neo-determinism	7
III	Distribution of population and world pattern, concept of over population and under population.	7
IV	Human Settlements: Origin, types (Rural-Urban) characteristics, House types and their distribution with special reference to India.	7
V	Primitive Economics-Food gathering, Hunting, Pastoral herding, Fishing, and primitive agriculture.	8
VI	Cultural Regions, Race, Religion and Language.	8
VII	World Tribes: Eskimos, Kirghiz, Bushman, Masai, Semang, Pygmies.	8
VIII	Indian Tribes: Bhotias, Gaddis, Tharus, Bhil, Gond, Santhal,	8

Suggested Readings:

1. B N Singh (2019) Manav Bhugol ka Swaroop, Pravalika Publication, Allahabad
2. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
3. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
4. Singh, K. N. and Singh, J. (2001): Manav Bhugol. Gyanodaya Prakashan, Gorakhpur. 2nd edition.
5. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad

Suggested Continuous Evaluation Methods: Assignment / Test / Quiz(MCQ) / Seminar/ Presentations

Course prerequisites: 12th Standard Pass/Open to all

Suggested equivalent online courses: Courses on Swayam / MOOCs
https://onlinecourses.swayam2.ac.in/nou20_hs18/preview

B.A /B.Sc. 1st Year, Sem. II

Course II (Practical)

Program/Class: Certificate/BA/B.Sc	Year: First	Semester: Second
Subject: Geography		
Course Code:A110202P	**Course Title: Thematic Mapping and Surveying**	
Outcomes : On completion of this course, learners will be able to understand the basic idea of Map, Scale and Topographic sheets		
Credits: 2	Core Compulsory	
Max. Marks: -25	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		

Unit	Topics	No. of Lectures
I	Maps – Classification and Types, Principles of Map Design. Diagrammatic Data Presentation – Line, Bar and Circle.	7
II	Thematic Mapping Techniques – Properties, Uses and Limitations; Areal Data-- Choropleth, Dot, Proportional Circles; Point Data – Isopleths.	7
III	Cartographic Overlays – Point, Line and Areal Data. Thematic Maps – Preparation and Interpretation.	8
IV	Instrumental Survey: Prismatic Compass	8

Suggested Readings:

1. Sharma, J. P. (2001): Prayogik Bhugol. Rastogi Publication, Meerut 3rd. edition.
2. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,
3. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
4. Sharma, JP. (2008): Prayogatmak Bhugol Ki Rooprekha, Rastogi Publications- Meerut.

Note: In Final Examination Student shall be examined by external and internal examiners.
Marks Distribution: Written Exam, Viva, Practical File, Map Preparation.

B.A /B.Sc. 2nd Year, Semester. III

Course I (Theory)

Programme/Class: Diploma/B.A/B.Sc	Year: Second	Semester: Third
Subject: Geography		
Course Code: A110301T	**Environment, Disaster Management and Climate Change**	
Outcomes: Students will be able to understand Environment, Climate Change, Disaster Management basics. It also includes appraisal, conservation, impacts of Climate Change, global disaster management efforts		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per Rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Concepts & components of Environment, Ecology and ecosystem. Indian traditional Knowledge in Environment and disaster Management.	8
II	Bio-diversity and its conservation, sustainable development.	8
III	Deforestation, soil erosion, soil exhaustion, Desertification, Air pollution, water pollution Disposal of solid waste.	8
IV	Ganga Action Plan, Tiger project, Tehri dam & Narmada Valley project.	8
V	Science of Climate Change: Understanding Climate Change; Green House Gases and Global Warming.	8
VI	Global Climatic Assessment – IPCC, Impacts of Climate Change, National Action Plan on Climate Change.	7
VII	Disasters, Hazards, Risk, Vulnerability, Type of Disasters, Disaster Management Disaster management cycle	7
VIII	Flood, Drought, Cyclone, Earthquake,Tsunami, Landslide, Chemical and Nuclear Disasters. Do's and Don'ts During Disasters.	6

Suggested Readings:

1. Singh, R.B. (1993) Environmental Geography. Delhi, India: Heritage Publishers.
2. Government of India. (2011). Disaster Management in India. Delhi, India: Ministry of Home Affairs.
3. Singh, Savendra (2019) Pryavaran Bhugol, Pravalika Publication, Allahabad
4. Kapur, A. (2010). Vulnerable India: A Geographical Study of Disasters. Delhi, India: Sage Publication.
5. Singh, Savendra (2019) Apada Prabandhan, Pravalika Publication, Allahabad.
6. Ramkumar, M. (2009). Geological Hazards: Causes, Consequences and Methods of Containment. New Delhi, India: New India Publishing Agency.
7. Climate Change: Agriculture and Water; Flora and Fauna; Human Health
8. Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia.

This course can be opted as an elective by the students of following subjects: Open for all

Suggested Continuous Evaluation Methods: Assignment / test / Quiz(MCQ) / Seminar/ Presentations

B.A /B.Sc. 2nd Year, Sem. III

Course II (Practical)

Programme/Class: Diploma/BA/B.Sc.	Year: Second	Semester: Third
Subject: Geography		
Course Code: A110302P	**Course Title: Statistical Techniques and Surveying**	
Outcomes: Students will be able to understand the difference between qualitative and quantitative data and its nature, method of sampling and its graphical representation		
Credits: 2	Core Compulsory	
Max. Marks: 25	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): P- 2/w		

Unit	Topics	No. of Lectures
I	Use of Data in Geography: Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement	8
II	Tabulation and Descriptive Statistics: Frequency Distribution Table, Cross Tabulation, Graphical Presentation of Data (Bar diagram, Histograms, Frequency Curve and Cumulative Frequency Curves), Measurement of Central Tendencies (Mean, Median and Mode), Measurement of Partitions (Deciles, Quartiles and Percentiles), Dispersion (Standard Deviation, Variance and Coefficient of Variation).	8
III	Sampling: Probability sampling Non-probability sampling. Correlation: Rank Correlation and Product Moment Correlation.	7
IV	Instrumental Survey: Sextant	7

Suggested Readings:

1. Berry B. J. L. and Marble D. F. (eds.): Spatial Analysis – A Reader in Geography.
2. Ebdon D., 1977: Statistics in Geography: A Practical Approach.
3. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
4. Sharma, JP (2001) Prayogik Bhugol, Rastogi Publication, Meerut
5. Bansal SC,(2020) Shodh vidhitantra va sankhikiya Vishyan, RK Books Publication, New Delhi.
6. Mahmood A., 1977: Statistical Methods in Geographical Studies, Concept.
7. Pal S. K., 1998: Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
8. Sarkar, A. (2013) Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi

Note: In Final Examination Student shall be examined by external and internal examiners. Marks Distribution: Written Exam, Viva, Practical File, Instrumental Surveys.

B.A /B.Sc. 2nd Year, Semester. IV

Course I (Theory)

Program/Class: Diploma /B.A/B.Sc	Year: Second	Semester: Fourth
Subject: Geography		
Course Code: A110401T	**Course Title: Economic Geography**	
Outcomes: Students will be able to understand the concepts of economic geography, nature of economic activities, and the effects of globalization on developing countries		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per rule	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Meaning, concepts and approaches of Economic Geography.	4
II	Resource: meaning, concept and classification. Spatial organization of economic activities.	8
III	Economic organization of space, Forestry, fishing and mining activities.	7
IV	Agricultural region of the world (Derwent Whittlesey),Agricultural typologies, agricultural land use model (J.H. Von Thunen)	1 1
V	Types of industries; Factors of location of industries; iron and steel industry, cotton textiles and sugar; Theory of industrial location (Alfred Weber).	8
VI	World transportation: Sea routes and major trans- continental railways.	8
VII	WTO and International trade: Patterns and trends	7
VIII	Effect of globalization on developing countries.	7

Suggested Readings:

1. B N Singh (2021) Manav evam Arthik Bhugol, Pravalika Publication, Allahabad
2. Gautam, A. (2006): Aarthik Bhugol Ke Mool Tattava, Sharda Pustak Bhawan, Allahabad.
3. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
4. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff , New Jersey, Prentice Hall
5. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,

Suggested Continuous Evaluation Methods: Assignment / test / Quiz(MCQ) / Seminar/Presentations

B.A /B.Sc. 2nd Year, Semester. IV

Course II (Practical)

Program/Class: Diploma /B.A/B.Sc	Year: Second	Semester: Fourth
Subject: Geography		
Course Code:A110402P	**Course Title: Weather Maps, Geological Maps and Surveying**	

Learning Outcomes: On completion of this course, learners will be able to:

- Identify the various Survey Operations and Survey Instruments
- To understand the idea of Basic and applied Instrumental surveying

Credits: 2	Core Compulsory
Max. Marks: 25	Min. Passing Marks: As per rule

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

Unit	Topics	No. of Lectures
I	Weather Maps, Study and Interpretation of Weather Map, Weather Forecasting.	7
II	Geological Maps: Types, Signs, Bed and Bedding plane, Rock Outcrop, Dip, Strike etc. Construction of Geological Sections.	7
III	Instrumental Survey: Indian Clinometer.	8
IV	Instrumental Survey: Dumpy Level	8

Suggested Readings:

1. Sharma, JP (2001) Prayogik Bhugol, Rastogi Publication, Meerut
2. Kanetker, T.P. and Kulkarni, S.V.(1967): Surveying and Levelling, Vol I and II V.G. Prakashan, Poona.
3. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai.
4. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
5. Punmia, B.C.(1994): Surveying, Vol I, Laxmi Publications Private Ltd, New Delhi.
6. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions), Kalyani Publishers, Ludhiana and New Delhi.
7. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad..

Note: In Final Examination Student shall be examined by external and internal examiners. Marks Distribution: Written Exam, Viva, Practical File, Instrumental Surveys

B.A /B.Sc. 3rd Year, Semester. V

Course I (Theory)

Programe/Class: Degree/B.A/ B.Sc	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: A110501T	**Course Title: Regional Geography**	
Outcomes: Students will be able to understand the concept of Region and Regional Planning, familiarized with Theories and Models for Regional Planning and developed understanding on the concept of Sustainable Development and Multi level planning.		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Definition of Region, Evolution, and objectives of Regional planning.	8
II	Types of Regional Planning, Formal, Functional, and Planning Regions.	8
III	Delimitations of Region and Regional Planning.	8
IV	Theories and Models for Regional Planning: Growth Pole Model of Perroux; Myrdal, Rostow, and Friedmann.	8
V	Sustainable Development, Concept of Development and Underdevelopment.	8
VI	Efficiency-Equity Debate: Definition, Components and Sustainability for Development.	7
VII	Developmental Indicators (Economic, Social and Environmental).	7
VIII	Need for regional planning in India, Five Year Plans and Regional Planning, multi-level planning in India, Niti Aayog.	6

Suggested Readings:

1. Anand, Subhash.,(2011). Eco-development: Glocal Perspectives. New Delhi, India: Research India.
2. Mishra, R. P., Sundaram, K.V., and Rao, V.L.S. (1974). Regional Development planning in India. Delhi, India: Vikas Publishing House.
3. Singh, M B, () Pradeshik Vikas Niyogan, Tara Book Agency, Varanasi.
4. Bhat L.S. (1972): Regional Planning In India, Statistical Publishing Society
5. Kundu, A. (1992): Urban Development Urban Research in India, Khanna Publ. New Delhi.
6. Misra , R.P, Sundaram K.V, PrakashRao , VLS(1974): Regional Development Planning in India , Vikas Publication , New Delhi.
7. Misra, R.P (1992): Regional Planning: Concepts, techniques, Policies and Case Studies, Concept, New Delhi

Suggested Continuous Evaluation Methods: Assignment/test / Quiz (MCQ) / Seminar/ Presentations

B.A /B.Sc. 3rd Year, Semester. V

Course II (Theory)

Program/Class: Degree /BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code:A110502T	**Course Title: Basics of Remote Sensing and GIS**	
Learning Outcomes : On completion of this course, learners will be able to understand the basic idea and application of Remote sensing Techniques and Geographical Information System		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Remote Sensing: Definition, Type, Scope and Historical Development (World and India).	7
II	Electromagnetic radiation: Characteristics, spectral regions, and bands. Interaction with earth surface features and atmosphere, spectral signature	7
III	Remote sensing satellites: Platform and sensors. Resolution: Spatial, Spectral, Temporal, Radiometric Resolution.	8
IV	Remote Sensing data processing and applications: Visual and digital image processing techniques.	8
V	Remote Sensing Applications in resource mapping and environmental monitoring	6
VI	Aerial Photos: Types and characteristics;	8
VII	Determination of Photo scale, identification, and interpretation of geomorphic features.	8
VIII	Land use/land cover map from stereogram and satellite images	8

Suggested Readings:

1. Choniyal, D D, (2016) Sudur Samvaden evam Bhogolic Suchna Pranali ke sighant, Sharda Pustak Bhavan, Allahabad.
2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York
3. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London
4. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
5. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi
6. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.

Suggested Continuous Evaluation Methods: Assignment/test / Quiz (MCQ) / Seminar/Presentations
Suggested equivalent online courses: Courses on Swayam / MOOCs
https://onlinecourses.swayam2.ac.in/aic20_ge05/preview

B.A /B.Sc. 3rd Year, Semester. V

Course III (Practical)

Programme/Class: Degree/BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: A110503P	**Course Title: Regional Planning Practical**	
Outcomes: Students will be able to understand the concept of integrated planning and how to prepare development plan of local areas.		
Credits: 2	Core Compulsory	
Max. Marks: 25	Min. Passing Marks: As per Rule	
Total No. of Lectures-Tutorials-Practical (in hours per week): P- 2/w		

Unit	Topics	No. of Lectures
1	Study of river valley project areas and integrated planning exercise	7
II	Planning of Infrastructural Elements.	8
III	Preparation of Development Plans to Local Levels.	7
IV	Metropolitan of Regional Planning.	8

Suggested Readings:

1. Freeman, W. – Geography and Planning.
2. Alonso and Friedman - Regional Development and Planning.
3. Mishra, R.P. - Regional Development Planning.
4. Issard, W. – Methods of Regional Analysis.
5. Singh, J. – Central Places and Spatial Organization in a Backward Economy.

This course can be opted as an elective by the students of the following subjects: Open for all

B.A /B.Sc. 3rd Year, Sem. V,
Course III (Practical)

Programme/Class: Degree/BA/B.Sc	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: A110504P	Course Title: Tour and Tour report	
Course outcomes: Students will be able to understand the variation among geographical locations, Interaction with people with different natural and cultural settings, study physical and human geography of area being visited and Learn to prepare tour report.		
Credits: 2	Core Compulsory	
Max. Marks: 25	Min. Passing Marks: As per rule	
Total No. of Lectures-Tutorials-Practical (in hours per week): P- 2/w		

Unit	Topics	No. of Lectures
I	How to prepare Field Book, steps and methods for preparing Tour report, Methodology for Research in Field Trip, Various aspects of study in Field Trip, Preparation of Surveying in Field Trip. (30 lectures shall be taken before and during field trip)	30

This course can be opted as an elective by the students of following subjects: Open for all

Geographical Excursion

The following shall be the guidelines and structure of Educational tour;

Geographical Excursion Committee

1. All faculty members shall organize geographical excursion as 'tour in-charge' in rotation according to departmental seniority list.
2. There shall be Geographical Excursion Committee headed by HOD in University and Principal in colleges. Tour in-charge shall act as convener of committee and shall convene a meeting at the beginning of session or semester. All other teachers of department shall be member of committee. Four/Five meritorious students based on last available examination result shall be invited by the tour in-charge to participate in meeting as members of committee.
3. Committee shall:
    a. Review the tour plan.
    b. Confirm that all arrangements shall be made in advance before tour departure.
4. Listen to the opinion of students and give recommendations to tour in-charge accordingly.
5. Review academic nature of tour and evaluate day wise tour plan and academic activity as submitted by Tour in-charge.

Structure of the tour party

6. For 20 or less than 20 students one faculty member with one non-teaching staff shall accompany the Tour party. For 21 to 50 students two faculty members with one non-teaching staff shall accompany the Tour party. If two faculty members are required for tour, second faculty member shall be selected on the recommendation of tour in-charge. If students are more than 50 then a separate tour batch shall be constituted in same manner.

If female students are also participating in tour and tour in-charge, accompany other faculty member or Non-teaching staff none are female then one female attended (Female faculty member from Geography or any other departments/female non-teaching staff) shall accompany with tour party Responsibility of tour in-charge

7. Tour shall at least of 6 days stay at location with inter region variation.
8. Tour in-charge shall submit tentative day wise activity report in advance to HOD in University and Principal in colleges.
9. Tour in-charge shall coordinate with Institutes/Colleges/ Universities/Research institutes etc in location where tour is being planned for following activities like;
    a. Interaction of students.
    b. Lectures on various local physical and cultural attributes of the area by the experts.
    c. Local visit with faculty members having academic understanding of the area.
10. Lectures by tour in-charge on physical and human characteristics of area being visited for educational tour.
11. Survey with students with at least one instrument like Dumpy Level, Sextant, Theodolite, GPS etc.
12. Questionnaire survey on various socio-cultural or any other aspects. Questionnaire must be prepared in advance and shall be shared during Geographical Excursion Committee meeting.
13. Tour in-charge shall collect undertaking from all students which shall be counter signed by their guardian.
14. Tour in-charge will prepare list of students accompanying the tour with their information like mobile number, address, guardian contact information and one recent color photo. One copy will also be submitted to the head in universities and Principal in colleges.
15. Teacher shall always try to minimize tour expenditure of students by;
    a. Using concession train reservation and avoiding buses if possible.
    b. Making stay arrangements of students in advance in youth hostels/lodges/guest house etc.
    c) Try to visit few important locations only with objective of spot study and avoiding unnecessary travel for sightseeing.
16. After the completion of tour there shall be presentation by students regarding learning outcomes and experiences under the supervision of tour in-charge. Presentation shall be attended by Geographical Excursion Committee members along with other faculty members, staff, students etc.
17. All students shall submit tour report under supervision of Tour in-charge for evaluation. Tour report shall portray all activities conducted and places visited for the purposes of study.
18. In case of any incident/injury where one or more than one student can't join tour party in return journey. One teaching/non teaching staff member shall stay with student until student's guardian arrives or alternative arrangement is not made by the college. In case tour in-charge stays the other teacher/staff member shall act as tour in-charge for remaining tour period according to seniority.

Exemption of Students from Tour

1. Tour can be exempted in very special circumstances on recommendation of tour in- charge and head (in University) or In charge in Department (in Colleges). Exempted students will prepare local tour report based on his/her own local tour visits. Report shall be prepared under supervision of tour in-charge.

TA, DA and other expenses

1. 1. The TA, DA and other expenses of teachers and attendants shall be met out by college as admissible to their cadre as per government rules.

B.A /B.Sc. 3rd Year, Semester VI,

Course I (Theory)

Program/Class: Degree /BA/BSc	Year: Third	Semester: Sixth
Subject: Geography		
Course Code:A110601T	Course Title: Geography of India	
Outcomes : On completion of this course, learners will be able to understand different geographical aspects of India		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Location, Structure and relief; Drainage system; Physiographic regions	8
II	Mechanism of Indian monsoons, Climatic regions; Natural vegetation; Soil types and their distributions.	8
III	Resources: Land, Water resource, energy- Coal, and Petroleum , Minerals- Iron , Manganese, Bauxite, Energy crisis, Renewable Energy	7
IV	Industry: Locational factors of industries; Industrial region; New Industrial policies; Special Economic Zones;	7
V	Cultural Setting: Society; Racial, linguistic and ethnic diversities; Major tribes, tribal areas, and their problems.	8
VI	Population: Growth, distribution, and density of population; Demographic attributes: sex-ratio, age structure, literacy rate, work-force, dependency ratio, Population problems and policies.	8
VII	Agriculture: Irrigation,; Crop- Rice, Wheat Sugarcane Cotton, Agricultural productivity, agricultural intensity, crop combination, Green revolution and its socio-economic and ecological implications.	6
VIII	Settlements: Types, patterns, and morphology of rural settlements; Morphology of Indian cities; Functional classification of Indian cities; urban sprawl; Slums and associated problems.	8

Suggested Readings:

1. Chauhan, P.R. and Prasad, M. (2003): Bharat Ka Vrihad Bhugol, Vasundhara Prakashan, Gorakhpur.
2. Gautam, A. (2006): Advanced Geography of India, Sharda Pustak Bhawan, Allahabad
3. Bansal SC,(2018) Bharat Ka Bhugol, Meenakshi Publication, New Delhi, Meerut.
4. Singh , J. (2003): India: A Comprehensive Systematic Geography. Gyanodaya Prakashan, Gorakhpur
5. Singh, R.L. (ed.) (1971): India: A Regional Geography. National Geographical Society of India, Varanasi.
6. Tiwari, R.C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad.
7. Wadia, D. N. (1959): Geology of India. Mac-Millan and Company, London and student edition, Madras.
8. Khullar, D.R. (2007): India: A Comprehensive Geography, Kalyani Publishers, New Delhi.

B.A /B.Sc. 3rd Year, Sem. VI,

Course II (Theory)

Program/Class: Degree /BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code:A110602T	**Course Title: Evolution of Geographical Thought**	
Outcomes : On completion of this course, learners will be able to understand the contribution of Indian and other renowned Geographers regarding the concept of evolution of Geographical Thought.		
Credits: 4	Core Compulsory	
Max. Marks: 25+50	Min. Passing Marks: As per Rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		

Unit	Topics	No. of Lectures
I	Contribution of Indian Geographers in Ancient India. (Ved and puranas)	6
II	Contribution of Greek & Roman geographers in ancient world.	7
III	Contribution of Arab geographers in Middle ages, Renaissance period in Europe. Renowned travelers and their geographical discoveries.	8
IV	German school of thought - Kant, Humboldt, Ritter, Richthofen, Ratzel, Hettner.	8
V	French school of thought - Contribution of Blache & Brunhes American school - Contribution of Sample, Hunthington & Carl Sauer. British school - Contribution of Mackinder, Herbertson & L.D. Stamp.,	8
VI	Dualisms in geography; systematic & Regional geography, physical & human geography, The myth and reality about dualisms.	8
VII	Areal differentiation and spatial organization in Geography, Quantitative Revolution in geography	7
VIII	Paradigms in Geography, Thomas Kuhn theory about the growth and development of science. Application of Kuhn Model in Geography.	8

1. Suggested Readings:
2. Dikshit, R. D. (2003): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India,New Delhi. (in English and Hindi).
3. Dube, B. (1967): Geographical Concepts in Ancient India, National Geographical Society of India,Varanasi
4. Hartshorne, R. (1959): Perspective on the Nature of Geography, John Murray, London
5. Majid. (2002): Evolution of Geographical Thought, Rawat Publications, Jaipur.
6. Taylor, G. (ed.) (1953): Geography in the Twentieth Century. Methuen and Company, London.

Suggested Continuous Evaluation Methods: Assignment / test / Quiz(MCQ) / Seminar/ Presentation

B.A /B.Sc. 3rd Year, Sem. VI,
Course III (Practical)

Program/Class: Degree/BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: A110603P	Course Title: Geographical Information System	
Outcomes :On completion of this course, learners will be able to understand and Conceptualize Remote Sensing and GIS Technique		
Credits: 2	Core Compulsory	
Max. Marks: 25	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		

Unit	Topics	No. of Lectures
I	Overview of image processing & GIS Packages (Including open source Software's). QGIS.	5
II	Creation of Shape File in GIS Software's. Coordinate system and projections in GIS Software's. GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure.	10
III	Geo-Referencing of Maps. Creation of Point, Line and Polygon Files and features. Preparation of Maps with Legend, Scale, North Arrow etc and Export of Map in various Formats.	10

Suggested Readings:

1. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London
2. Chaunial, D. D. (2004): Remote Sensing and Geographical Information System(in Hindi), Sharda Pustak Bhawan, Allahabad
3. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London.
4. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science, Bangalore.
5. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. John Wiley and Sons, New York.
6. Rampal, K.K. (1999): Handbook of Aerial Photography and Interpretation. Concept Publishing. Company, New Delhi.

Note: In the Final Examination Students shall be examined by external and internal examiners. Marks Distribution: Written Exam, Viva, Practical File, Map Preparation using open source GIS, Image processing Software Use.

B.A /B.Sc. 3rd Year, Sem. VI, Course III
(Practical)

Program/Class: Degree/BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: A110604P	Course Title: Remote Sensing	
Outcomes :On completion of this course, learners will be able to understand and Conceptualize Remote Sensing and GIS Technique		
Credits: 2	Core Compulsory	
Max. Marks: 25	Min. Passing Marks: As per rules	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		

Unit	Topics	No. of Lectures
I	Measure of photo scale	5
II	Construction Mosaic and triplet Downloading of Remote Sensing Images from various online platforms (like Bhuvan,	10
III	Land use Classification (Supervised and Un- supervised) using downloaded images	10

Suggested Readings:

1. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London
2. Chaunial, D. D. (2004): Remote Sensing and Geographical Information System(in Hindi), Sharda Pustak Bhawan, Allahabad
3. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London.
4. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science, Bangalore.
5. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. John Wiley and Sons, New York.
6. Rampal, K.K. (1999): Handbook of Aerial Photography and Interpretation. Concept Publishing. Company, New Delhi.

Note: In the Final Examination, Students shall be examined by external and internal examiners. Marks Distribution: Written Exam, Viva, Practical File, Map Preparation using open source GIS, Image processing Software Use.