

**MAA SHAKUMBHARI UNIVERSITY
SAHARANPUR**



GRADUATE

As per National Education Policy-2020



**SUBJECT: GEOGRAPHY
SYLLABUS FOR: B.A. /B. Sc.
(Session 2022-23 onwards)**

B.A./ B.Sc. in Geography

PROGRAMME SPECIFIC OUTCOMES (PSOs)-

Program Outcome (After 3 Years of Study)

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

MAA SHAKUMBHARI UNIVERSITY SAHARANPUR

Semester-wise Titles of the Papers in BA (Geography)

Year	Sem.	Course Code	NEP Code	Paper Title	Theory/ Practical	Credits
1st Year Certificate						
1	I	0111101	A110101T	Physical Geography	Theory	4
1	I	0111180	A110102P	Elements of Map and Surveying	Practical	2
1	II	0211101	A110201T	Human Geography	Theory	4
1	II	0211180	A110202P	Thematic Mapping and Surveying	Practical	2
2nd Year Diploma						
2	III	0311101	A110301T	Environment Disaster Management and Climate Change	Theory	4
2	III	0311180	A110302P	Statistical Techniques and Surveying	Practical	2
2	IV	0411101	A110401T	Economic Geography	Theory	4
2	IV	0411180	A110402P	Weather Maps, Geological Maps and Surveying	Practical	2
3rd Year Degree						
3	V	0511101	A110501T	Regional Geography	Theory	4
3	V	0511102	A110502P	Basics of Remote Sensing and GIS	Theory	4
3	V	0511160	A110503R	Tour and Tour Report	Practical	2
3	V	0511165	A110504R	Project Report-1	Practical	4
3	VI	0611101	A110601T	Geography of India	Theory	4
3	VI	0611102	A110602T	Evolution of Geographical Thoughts	Theory	4
3	VI	0611180	A110603P	Remote Sensing and GIS	Practical	2
3	VI	0611165	A110604R	Project Report-2	Practical	4

BA 1st Year, Certificate Course
Semester-I
Course I
(Theory)

Programme Class: Certificate/ BA	Year: First	Semester: First
Subject: Geography		
Course Code: 0111101	Course Title: Physical Geography	
Course outcomes: Students will be able to understand <ul style="list-style-type: none"> • The Earth geomorphic transition from beginning to present Day • Plate tectonics and related movements • Landforms carved by various agents of erosion • Earth's climate and those factors that influence it • Oceans system and biogeography of the world. 		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L-4/w		
Unit	Topics	No. of Lectures
I	Nature and Scope of Physical Geography, Origin of Earth (Big Bang Theory and Indian Concepts). Interior of the Earth, Rocks	8
II	Origin of Continents and Oceans, Isostasy, Earthquakes and Volcanoes, Continental Drift theory, Concept of Plate Tectonics	8
III	Folding, Faulting, Denudation, Cycle of Erosion by Davis and Penck.	8
IV	Fluvial, Karst, Aeolian and Glacial Landforms	8
V	Composition and Structure of atmosphere, Insolation, Atmospheric pressure and winds.	8
VI	Airmasses, cyclones and anti-cyclones, Humidity, condensations precipitation and rainfall types.	7
VII	Ocean Bottoms, Ocean deposits, salinity. Circulation of Ocean water-Waves, Currents and Tides, Coral reefs and it's type.	7
VIII	Biosphere: Meaning and Concept, components Of Biosphere	6

Suggested Readings:

1. Singh, Savindra (2018). Physical Geography (Eng./Hindi) Allahabad, PrayagPustak.
2. Haggett, R.J. (2007): *Fundamentals of Geomorphology*, New York, U.S.A. Routledge.
3. Khullar, D.R. (2012). Physical Geography. New Delhi, India: Kalyani Publishers.
4. Strahler, A. H. and Strahler, A N. (2001): Modern Physical Geography (4/E). New York, U.S.A.: John Wiley and Sons, Inc.
5. Thornbury, W.D. (2004): Principles of Geomorphology New York, U.S.A. Wiley.
6. AlkaGautam: BhautikBhugol. Rastogi Publications, Meerut.
7. Bansal, S.C., PankajChauhan : (2019) BhautikBhugol, MeenakshiPrakashan, Meerut.

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>

**BA 1stYear
Semester-I
Course II
(Practical)**

Programme/Class: Certificate/ BA	Year: First	Semester: First
Subject: Geography		
Course Code:0111180	Course Title: Elements of Map and Surveying	
<p>Course Learning Outcomes On completion of this course, learners will be able to:</p> <ul style="list-style-type: none"> • Understand the basic idea of Map, Scale and Topographic sheets 		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	Cartography:-Nature and Scope. Scales-Concept and application; Graphical Construction of Plain, Comparative, Diagonal and Vernier scales	7
II	Map Projections: - Classification, Properties and Uses; Graphical Construction of Polar Zenithal, Cylindrical Equal Area, Bonne's and Mercator's Projections,	7
III	Topographical Map:- Coverage, Scale and Topo Symbol, Interpretation Survey of India Toposheets. Representation of landforms by Contours.	8
IV	Basics of Surveying:-Surveying: meaning, Plane Table Surveying By Intersection and resection (only one method).	8
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London 2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition. 3. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata. 4. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition. 		

5. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi.
6. 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.

Five Questions are to be attempted

Written Test – 60

Viva-voice – 20

Record – Work (file) – 20

**BA 1st Year
Semester-II
Course I
(Theory)**

Programme Class: Certificate/ BA	Year: First	Semester: Second
Subject: Geography		
Course Code: 0211101	Course Title: Human Geography	
<p>Course Learning Outcomes: On completion of this course, learners will be able to:</p> <ul style="list-style-type: none"> • To understand the Concept, Nature. Meaning and Scope of Human Geography. • To understand the natural and Cultural Changes in and around the Human Environs and their interrelationship 		
Credits: 4	Core Compulsory	
Max. Marks: -25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L-4/w		
Unit	Topics	No. of Lectures
I	Concept and Nature, Meaning and Scope of Human Geography.	7
II	Man and Environment relationship - Determinism, Possibilism, and Neo-determinism	7
III	Population- Distribution and pattern, global migration - causes and consequences, concept of over-population and under-population.	7
IV	Human Settlements: Origin, types and pattern (RuralUrban) characteristics, House types and their distribution with special reference to India.	7
V	Primitive Economies-Food gathering, Hunting, Pastoral herding, Fishing, Lumbering and Primitive agriculture, Agriculture types	8
VI	Cultural Regions, Race, Religion in reference to India	8
VII	World Tribes: Eskimos, Khirghiz, Bushmen, Pygmies.	8
VIII	Indian Tribes: Tharus, Bhil, Santhal, Nagas.	8

Suggested Readings:

1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
2. B N Singh (2019) Manav Bhugol ka Swaroop, Pravalika Publication, Allahabad.
3. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
4. B N Singh (2021) Manav evam Arthik Bhugol, Pravalika Publication, Allahabad
5. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi publication, Meerut.
6. Norton, W. (2008): Human Geography, Oxford University Press, New York 5th ed.
7. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad.
8. Smith, D.M.(1977): Human Geography- A Welfare Approach, Edward Arnold (publishers) Ltd., London
9. Stoddard, R.H., Wishart, D.j. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.
10. Johnston, R.J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, basil Blackwell Publishers, Oxford.
11. S.C. Bansal., (2018) Manav Bhugol, 4th edition Meanakshi Prakashan, Meerut.
12. Dr. Chaturbhuji Mamoria, Manav Bhugol, Sahitya Publication

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:

Courses on Swayam / MOOCs

<https://onlinecourses.swayam2.ac.in./nou20> hs18/preview

**BA 1st Year
Semester-II
Course II
(Practical)**

Program/ Class: Certificate/ BA	Year: First	Semester: Second
Subject: Geography		
Course Code: 0211180	Course Title: Thematic Mapping and Surveying	
Course Learning Outcomes On completion of this course, learners will be able to:		
<ul style="list-style-type: none"> • Understand the basic idea of Map. Scale and Topographic sheets 		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	Maps- Classification and Types, Diagrammatic Data Presentation – Line, Bar and Circle.	7
II	Thematic Mapping Techniques – Properties, Uses and Limitations: Choropleth, Dot – Isopleths, Map Techniques	7
III	Cartographic Overlays – Point, Line, thematic Maps- Preparation and Interpretation.	8
IV	Instrumental Survey : Prismatic Compass–Intersection Method	8
Suggested Readings:		
<ol style="list-style-type: none"> 1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London 2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition. 3. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi. 4. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad. 5. Sharma, J. P. (2016): Prayogatmak Bhugol Ki Rooprekha, Rastogi Publication, Meerut 		
Note: In Final Examination Student shall be examined by external and internal examiners. Marks Distribution: Written Exam (60). Viva (20). Practical File, Map Preparation. (20)		

MAA SHAKUMBHARI UNIVERSITY SAHARANPUR

Semester-wise Titles of the Papers in BA (Geography)

Year	Sem.	Course Code	NEP Code	Paper Title	Theory/ Practical	Credits
2nd Year Diploma						
2	III	0311101	A110301T	Environment Disaster Management and Climate Change	Theory	4
2	III	0311180	A110302P	Statistical Techniques and Surveying	Practical	2
2	IV	0411101	A110401T	Economic Geography	Theory	4
2	IV	0411180	A110402P	Weather Maps, Geological Maps and Surveying	Practical	2

**BA 2nd Year,
Semester-III
Course I
(Theory)**

Programme/Class: Diploma/ BA	Year: Second	Semester: Third
Subject: Geography		
Course Code: 0311101	Course Title: Environment, Disaster Management and Climate Change	
<p>Course Learning Outcomes: Students will be able to understand</p> <ul style="list-style-type: none"> • The course aim is to give basic understanding of concept Environment, Climate Change and Disaster Management. • Understanding of the concept of appraisal and conservation of Environment and Natural Resources. • It will help in developing understanding about various Impacts of Climate Change. • This course shall introduce the basic concepts related to disaster Management. • This paper shall help in understanding Global effort in field of disaster management. 		
Credits: 4	Core Compulsory	
Max. Marks: -25+75	Min. Passing Marks: 40	
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.	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, Types of Disasters- Natural and Man-made	7
VIII	Chemical and Nuclear Disasters. Do's and Don'ts During Disasters. Covid -19 Disaster	6

Suggested Readings:

1. Singh, R.B. (1993) Environmental Geography. Delhi, India: Heritage Publishers.
2. UNEP. (2007). Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme. UK: University Press, Cambridge.
3. Government of India. (2011). Disaster Management in India. Delhi, India: Ministry on Home Affairs.
4. Singh, Savendra (2019) Prayavarn Bhugol, Pravalika Publication, Allahabad.
5. Kapur, A. (2010). Vulnerable India: A Geographical Study of Disasters. Delhi, India. Sage Publication.
6. Singh, Savendra (2019) Apada Prabandhan, Pravalika Publication, Allahabad.
7. Ramkumar, M. (2009). Geological Hazards: Causes, Consequences and Methods of Containment. New Delhi, India: New India Publishing Agency.
8. Climate Change: Understanding Climate Change; Green House Gases and Global Warming; Global Climatic Assessment-IPCC
9. Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability, Social Vulnerability.
10. Government of India. (2008). Vulnerability Atlas of India. New Delhi, India: Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India
11. Modh, S. (2010). Managing Natural Disaster: Hydrological, Marine and Geological Disasters. Delhi, India: Macmillan.
12. Bansal SC,(2019) Prayavarn ek adhyan, Meenakshi Publication, Meerut.
13. Alka Gautam, Prayavarn Bhugol, Sharda Pustak Bhawan, Allahabad
14. Ganesh Pathak (2022): Prayavarn Apda Prabandhan, Jalvayu Parivartan: Rajesh Publications, Delhi.

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/aic19_ge05/preivew

https://onlinecourses.swayam2.ac.in/nou21_bt03/preview

**BA 2nd Year,
Semester-III
Course II
(Practical)**

Programme/ Class: Diploma/ BA	Year: second	Semester: Third
Subject: Geography		
Course Code: 0311180	Course Title: Statistical Techniques and Surveying	
<p>Course Outcomes: Students will be able to understand</p> <ul style="list-style-type: none"> ● To differentiate between qualitative and quantitative information. ● To understand the nature of various data. ● To understand sampling methods for data collection. ● To present data through graphical and diagrammatic formats. ● To use the concept of probability mainly the normal distribution. 		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
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, Types of Data	8
II	Tabulation and Descriptive Statistics: Frequency Distribution Table and Tabulation, Graphical Presentation of Data (Bar diagram, Histograms, Frequency and Cumulative Frequency Curves), Measurement of Central Tendencies (Mean, Median and Mode), Dispersion, Standard deviation.	8
III	Method of Sampling, Correlation (Rank Correlation).	7
IV	Application of Statical methods in Socio-economic Survey.	7
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Berry B.J.L. and Marble D.F. (eds.): Spatial Analysis – A Reader in Geography. 2. Ebodon 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, J. P. (2001): Prayogatmak Bhugol, Rastogi Publication, Meerut
5. Hammond P. and Mc Cullagh P.S., 1978: Quantitative Techniques in Geography: An Introduction, Oxford University Press.
6. Sharma, PM, (2009) Bhugol Me sankhkiya Vidhyan, Rajasthan Granth Academy, Jaipur
7. Bansal SC,(2020) Shodh vidhitantra va sankhikiya Visgyan, R.K. Books Publication, New Delhi.
8. King L.S., 1969: Statistical Analysis in Geography, Prentice-Hall.
9. Mahmood A., 1977: Staticals Methods in Geographical studies, Concepts.
10. Pal S. K., 1998: Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
11. Sarkar, A. (2013) Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
12. Silk J., 1979: Statistical Concepts in Geography, Allen and Unwin, London.
13. Spiegel M.R.: Statistics, Schaum's Outline Series.
14. Yeats M., 1974: An Introduction to Quantative Analysis in Human Geography, McGraw Hill, New York.

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

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

**BA 2nd Year
Semester-IV
Course I
(Theory)**

Program/Class: Diploma/ BA	Year: Second	Semester: Fourth
Subject: Geography		
Course Code: 0411101	Course Title: Economic Geography	
Course Learning Outcomes		
On completion of this course, learners will be able to:		
<ul style="list-style-type: none"> • Define Meaning, Concepts and approaches of Economic Geography • Understand the nature of Economic activities, Resource Distribution • Understand the Effects of globalization on developing countries. 		
Credits: 4	Core Compulsory	
Max. Marks: -25+75	Min. Passing Marks: 40	
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: Spatial organization of economic activities	8
II	Resources: meaning, concepts, classification and distribution	8
III	Spatio-Economic organization of Forestry, fishing and mining activities	7
IV	Agricultural typologies, agricultural land use model (Von Thunen)	7
V	Types of industries; Factors of location of industries; iron and steel industry, cotton textiles and sugar.	8
VI	World transportation: Sea routes and major transcontinental railways.	8
VII	WTO ASEAN, 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. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999) : The Economic Geography Reader: Production and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark, G.L., Gertler, M.S. and Feldman, M.P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: a Contemporary Introduction. Blackwell Publishers Inc., Massachusetts.
5. Gautam, A. (2006): Aarthik Bhugol ke Mool Tattava, Sharda Pustak Bhawan, Allahabad.
6. Guha, J.S. and Chattoraj, P.R.(2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
7. Hanink, D.M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
8. Hartshorne, T.A. and Alexander, J.W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.
11. Sokal, Martin 2011. Economic Geographic's of Globalisation: a short Introduction. Cheltenham, UK : Edward Elgar.
12. Alexander, J. W. (1988): Economic Geography. Prentice-Hall , New Delhi,
13. H.M. Saxena (2021): Economic Geography, Rajasthan Granth Academy, Jaipur.

Suggested Continuous Evaluation Methods:

Assignment / Test / Quiz (MCQ) / Seminar/ Presentations

Suggested equivalent online courses:

https://onlinecourses.nptel.ac.in/noc21_hs50/preview

**BA 2nd Year
Semester-IV
Course II
(Practical)**

Program/ Class: Diploma/ BA	Year: second	Semester: Fourth
Subject: Geography		
Course Code: 0411180	Course Title: Weather Maps, Geological Maps and Advanced Surveying	
<p>Course Learning Outcomes On Completion of this course, learners will be able to:</p> <ul style="list-style-type: none"> • 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+75	Min. Passing Marks: 40	
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.	7
III	Instrumental Survey: Indian Clinometer/Sextant.	8
IV	Instrumental Survey: Telescope Alidade.	8
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Sharma, JP (2001) Prayogik Bhugol, Rastogi Publication, Meerut 2. Jones, P.A. (1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London. 3. Kanetker, T.P. and Kulkarni, S.V.(1967): Surveying and Leveling, Vol. I and II V.G. Prakashan, Poona. 4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications, Mumbai. 5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication. 6. Punmia, B.C. (1994): Surveying, Vol I, Laxmi Publications Private Ltd, New Delhi. 		

7. Shephard, F.A. (1968): Surveying Problems and Solutions, Edward Arnold (Publishers) Ltd, London.
8. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions), Kalayani Publishers, Ludhiana and New Delhi.
9. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.
10. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York.

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

MAA SHAKUMBHARI UNIVERSITY SAHARANPUR

Semester-wise Titles of the Papers in BA (Geography)

Year	Sem.	Course Code	NEP Code	Paper Title	Theory/ Practical	Credits
3rd Year Degree						
3	V	0511101	A110501T	Regional Geography	Theory	4
3	V	0511102	A110502P	Basics of Remote Sensing and GIS	Theory	4
3	V	0511160	A110503R	Tour and Tour Report	Practical	2
3	V	0511165	A110504R	Project Report-1	Practical	4
3	VI	0611101	A110601T	Geography of India	Theory	4
3	VI	0611102	A110602T	Evolution of Geographical Thoughts	Theory	4
3	VI	0611180	A110603P	Remote Sensing and GIS	Practical	2
3	VI	0611165	A110604R	Project Report-2	Practical	4

**BA 3rd Year
Semester-V
Course I
(Theory)**

Program/Class: Diploma/ BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: 0511101	Course Title: Regional Geography: North East Asia	
Course Outcomes: Students will be able to understand		
<ul style="list-style-type: none"> • To understand the Concept of Regional Study. • To Familiarize the students with Socio-economic aspects of the Region. • To develop understanding about the countries of the Region. 		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L-4/w		
Unit	Topics on North East Asia	No. of Lectures
I	Region as a geographical entity and as a component of Global System, Grouping of countries- geographical, Political, Historical and Cultural importance. (China, Japan, South and North Korea and Taiwan)	8
II	Geological Structure and Relief, Climate, Climatic Regions.	8
III	Vegetation, power and mineral resources	8
IV	Population- Growth, Distribution and Density, Migration and Composition.	8
V	Agriculture Characteristics, Agricultural Crops	8
VI	Main industries- Distribution and development, Industrial region of Countries	7
VII	Detailed Study of China	7
VIII	Detailed Study of Japan	6

Suggested Readings:

1. Dr. M.N. Nigam – Monsoon Asia
2. Vishwa Nath Niwari – Asia ka Bhaugolik Swaroop.
3. H.G. Dobby – Monsoon Asia
4. H.G. Cressy – Asia, Land and people
5. Dudley Stamp - Asia

Suggested Continuous Evaluation Methods:

Assignment / Test / Quiz (MCQ) / Seminar/ Presentations

Suggested equivalent online courses:

https://onlinecourses.nptel.ac.in/noc21_hs50/preview

**BA 3rd Year
Semester-V
Course II
(Theory)**

Program/Class: Degree/ BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: 0511102	Course Title: Basics of Remote Sensing and GIS	
Course Learning Outcomes On completion of this course, learners will be able to: <ul style="list-style-type: none"> • Understand the Basic idea and application of Remote sensing Techniques and Geographical Information System. 		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
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.	7
II	Electro-magnetic radiation: Characteristics, spectral regions and bands. Stages of Process of Remote Sensing.	7
III	Remote sensing satellites: Platform and sensors. Resolution: Spatial, Spectral, Temporal, Radiometric Resolution.	8
IV	Types and their characteristics of aerial photographs. Basic of image interpretation and its application.	8
V	Introduction of GIS : Definition, concept and history of GIS	6
VI	Remote Sensing and GIS applications in Urban Planning, Smart city development.	8
VII	Remote Sensing and GIS Applications in Agriculture, Forestry, Land use/Land Cover Mapping, Oceanic Studies and Disaster Management.	8
VIII	Computer fundamentals for GIS, GIS Packages like ARC GIS, ERDAS, QGI etc.	8

Suggested Readings:

1. Choniyal, D.D., (2016) Sudur Samvaden Evam Bhogolic Suchna Pranali ke Sidhant, Sharda Pustak Bhawan, Allahabad.
2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Images 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 Prithivish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi.
6. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.
7. Dr. Devi Dutt Chauniyal: Sudur Samvedan Avom Bhaugholik Suchana Pranali ke Sidhanth, Sharda Pustak Bhawan, Allahabad.
8. Prof. P.K. Garg Principle and Theory of Geo-informatics, Khanna Book publication, New Delhi.

Suggested Continuous Evaluation Methods:

Assignment / Test / Quiz (MCQ) / Seminar/ Presentations

Suggested equivalent online courses: Courses on Swayam /MOOCs
https://onlinecourses.swyam2.ac.in/aic20_qe05/preview

**BA 3rd Year, Sem. V,
Course III
(Practical)**

Programme/ Class: Degree/ BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: 0511160	Course Title: Tour and Tour Report	
Course Outcomes: Students will be able to understand <ul style="list-style-type: none"> • The variation among geographical locations. • Interaction with people with different natural and cultural settings. • Study physical and human geography of area being visited. • Learn to prepare Field report 		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	How to prepare Tour Book, steps and methods for preparing site report, Methodology for Research in Tour Trip, Various aspects of study in Tour Trip, Preparation of Tour Trip. (30 lectures shall be taken before and during field trip)	30
Suggested Readings:		
This course can be opted as an elective by the students of following subjects: Open for all.....		
Suggested Continuous Evaluation Methods: The following shall be the guidelines and structure of Educational tour;		
Geographical Excursion Committee <ol style="list-style-type: none"> 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 committee. Four/Five meritorious students based on last available examination result shall be invited by the field in-charge to participate in meeting as members of committee. 		

3. Committee shall:

- a) Review the field plan.
- b) Confirm that all arrangements shall be made in advance before field site departure.
- c) Listen to the opinion of students and give recommendations to field in-charge accordingly.
- d) Review academic nature of tour and evaluated day wise tour plan and academic activity as submitted by Tour in-charge

Structure of the Field party

1. 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.
2. If female students are also participating in tour and tour in-charge, accompany other faculty member or Non teaching staff none are female attended (Female faculty member from Geography or any other departments/female non teaching staff) shall accompany with tour party.

Responsibility of Field Survey in-charge

1. Tour shall at least of 6 days stay at location with inter region variation.
2. Tour in-charge shall submit tentative day wise activity report in advance to HOD in University and Principal in colleges.
3. 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.
4. Lectures by tour in-charge on physical and human characteristics of area being visited for educational tour.
5. Survey with students with at least one instrument like Indian clinometer, Sextant, GPS etc.
6. Questionnaire survey on various socio-cultural or any other aspects. Questionnaires must be prepared in advance and shall be shared during Geographical Excursion Committee meeting.
7. Field survey- in-charge shall collect undertaking from all students which shall be counter signed by their guardian.
8. Field survey- 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.

9. Teacher shall always try to minimize tour expenditure of students by;
 - a) Using concession train reservation and avoiding buses if possible.
 - b) Making stay arrangement of students in advance in youth hostels/lodges/guest house etc.
 - c) Try to visit few important locations only with objectives of spot study and avoiding unnecessary travel for sightseeing.
10. 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.
11. 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.
12. 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 in-charge.

Exemption of Students from Tour/Field work

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

TA, DA and other expenses

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.

Suggested equivalent online courses

**BA 3rd Year
Semester-V
Course III
(Practical)**

Programme/ Class: Degree/ BA	Year: Third	Semester: Fifth
Subject: Geography		
Course Code: 0511165	Course Title: Project Report-1	
Course Outcomes: Students will be able to understand <ul style="list-style-type: none"> • In-depth knowledge of research methodology. • Learn to prepare Project Report. 		
Credits: 3	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	Meaning, types and significance of Research, Literature review and formulation of research design, research problem, objectives, hypothesis, Research materials and methods, Sampling etc. Techniques of writing scientific reports: Preparing notes, references, bibliography, abstract and keywords etc. Note: <ol style="list-style-type: none"> 1. Each faculty member shall teach these topics of research to his/her Group of students independently. 2. Students shall choose supervisor according to his/ her research interest and specialization of Faculty member. 	30
Suggested Readings:		
This course can be opted as an elective by the students of following subjects: Open for all		
Suggested Continuous Evaluation Methods: Seminar, Presentation, VIVA Suggested equivalent online courses		

**BA 3rd Year,
Semester-VI
Course I
(Theory)**

Program/Class: Degree/ BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: 0611101	Course Title: Geography of India	
Course Learning Outcomes On completion of this course, learners will be able to: <ul style="list-style-type: none"> • Understand the importance of “Ek Bharat Shrestha Bharat” • Understand the wider aspects of Geography of India 		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L-4/w		
Unit	Topics	No. of Lectures
I	Space relationship of India with neighboring countries; Structure and relief; Drainage system and watersheds; Physiographic regions;, Unity in diversity.	8
II	Mechanism of Indian monsoons and rainfall patterns, Tropical cyclones, and western disturbances; Floods and droughts; Climatic regions; Natural vegetation; Soil types and their distributions.	8
III	Resources: energy, minerals, Forest and wildlife resources and their conservation (A study of wildlife Siwalik sanctuary) (Between River Yamuna and Ganga)	7
IV	Industry: Locational factors of industries; Industrial regionalization; New industrial policies;	7
V	Cultural Setting: Racial. linguistic and ethnic diversities:	8
VI	Population: Growth, distribution, and density of population; Demographic attributes: sex-ratio, age structure, literacy rate, work-force, dependency ratio, longevity; migration (inter-regional, intraregional and international) and associated problems; Population problems and policies;	8

VII	Agriculture: Infrastructure: irrigation, seeds, fertilizers, power; Institutional factors: Cropping pattern, agricultural productivity, agricultural intensity, crop combination, land capability; Agro and social-forestry: Green revolution and its socio-economic and ecological implications.	8
VIII	Settlements: Types, pattern, and morphology of rural settlements; Urban developments;-Slums.	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, Meerut.
4. Nag, P. and Gupta, S. S. (1992): Geography of India, Concept Publishing Company, New Delhi.
5. Rao, B.P. (2007): Bharat kee Bhaugolik Sameeksha, Vasundhara Prakashan, Gorakhpur.
6. Sharma, T.C. and Coutinho, O. (2003): Economic and Commercial Geography of India, Vikas Publishing House Private Ltd. New Delhi.
7. Singh, J. (2003): India: A Comprehensive Systematic Geography. Gyanodaya Prakashan, Gorakhpur
8. Singh, R.L. (ed.) (1971): India: A Regional Geography. National Geographical Society of India, Varanasi.
9. 13. Spate, O.H. K., Learmonth A. T. A. and Farmer, B. H. (1996): India, Pakistan and Sri Lanka. Methuen, London, 7th edition.
10. Tiwari, R.C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad.
11. Wadia, D.N.(1959): Geology of India. Mac-Millan and Company, London and student edition, Madras.
12. Khullar, D.R. (2007): India: A Comprehensive Geography, Kalyani Publishers, New Delhi.

**BA 3rd Year
Semester-VI
Course II
(Theory)**

Program/Class: Degree/ BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: 0611102	Course Title: Evolution of Geographical Thought	
Course Learning Outcomes On completion of this course, learners will be able to: <ul style="list-style-type: none"> • Understand the Contribution of India and other renowned Geographers • Understand the concept of evolution of Geographical Thought. 		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
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.	7
II	Early Origins of Geographical Thinking, Concepts of distributions; relationships, interactions, areal differentiation and spatial organization in Geography	7
III	Dualisms in geography; systematic & Regional geography, physical & human geography, Systematic and with regional geography. The myth and reality about dualisms.	8
IV	Contribution of Greek & Roman geographers in ancient world.	7
V	Contribution of Arab geographers in Middle ages, Renaissance period in Europe. Renowned travelers and their geographical discoveries.	8
VI	German school of thought - Kant, Humboldt, Ritter, Ratzel, French school of thought–Contribution of Blache & Brunhes.	8
VII	American school–Contribution of Sample, Huntington & Carl Sauer. British school - Contribution of Mackinder, Herbertson & L.D. Stamp.	7

VIII	Paradigms in Geography, Thomas Kuhn theory about VIII the growth and development of science.	8
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Ali, S.M. (1960): Arab Geography. Institute of Islamic Stu University. Aligarh, First Edition. 2. Dikshit, R. D. (2003): Geographical Thought. A Critical History of India, New Delhi. (in English and Hindi). 3. 5. 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. Harvey, D. (1969): Explanations in Geography. Arnold, London, 6. Holt-Jensen, A. (1980): Geography: Its History and Concepts Harper and Row Publishers, London. 7. Husain, Majid. (2002): Evolution of Geographic Thought, Rawat Publications, Jaipur. 8. Rawling, E. and Daugherty, R. (eds.) (2005): Geography into the Twenty-first Century. 2nd edition. John Wiley and Sons, Chichester. 9. Taylor, G. (ed.) (1953): Geography in the Twentieth Century. Methuen and Company London. 10. S.C. Bansal (2020): Bhougolik Chintan. Meenakshi Prakashan, Meerut. 11. S.D. Maurya: Bhougolik Chintan ka Itihas, Prawalika publication, Prayagraj. 		
<p>Suggested Continuous Evaluation Methods: Assignment/test/ Quiz(MCQ)/ Seminar/ Presentation</p>		
<p>Suggested equivalent online courses: Courses on Swayam / MOOCs https://onlinecourses.swayam2.ac.in/cec21lg06/preview</p>		

**BA 3rd Year
Semester-VI
Course III
(Practical)**

Program/ Class: Degree/ BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: 0611180	Course Title: Remote Sensing and GIS	
<p>Course Learning Outcomes On completion of this course, learners will be able to:</p> <ul style="list-style-type: none"> • Understand and Conceptualize Aerial photography Remote Sensing and GIS Technique. • Aerial Photography, Remote Sensing and mapping of disaster management. • Basic idea of Geographical Information System. 		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	Aerial Photographs- meaning and types, techniques of photography and photogrammetry, forward. Over laps, lateral overlaps, Coverage of area by aerial photographs.	7
II	Remote sensing- Definition, types, scope, development.	7
III	Remote Sensing- Electro-magnetic Radiation- characteristics	7
IV	Remote Sensing- Satellites – platforms and Sensors	7
V	Remote Sensing- Resolution types	7
VI	Remote Sensing and GIS application	6
VII	Remote Sensing – Study of GPS	6

Suggested Readings:

1. Chaunial, D.D. (2004): Remote Sensing and Geographical Information System (in Hindi), Sharda Pustak Bhawan, Allahabad
2. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London.
3. Curran, P.J. (1985): Principles of Remote Sensing. Longman, London.
4. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science, Bangalore.
5. Floyd, F. and Sabins, Jr. (1986): Remote Sensing: Principles and Interpretation. W.H. Freeman, New York.
6. Gautam, N.C. and Raghavswamy, V. (2004). : Land Use/Land Cover and Management Practices in India. B.S. Publication., Hyderabad.
7. Jensen, J.R. (2004): Remote Sensing of the Environment: An Earth Resource Perspective. Prentice Hall, Englewood Cliffs, New Jersey. Indian reprint available.
8. Nag, P. (ed.) (1992): Thematic Cartography and Remote Sensing. Concept Publishing Company, New Delhi.
9. Campell, J.B. (2003): Introduction to Remote Sensing. 4th edition. Taylor and Francis, London.
10. P.K. Garg Principle and Theory of Geo-informatics, Khanna Book Publication, New Delhi.

Note: In Final Examination Student 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.

**BA 3rd Year,
Semester-VI
Course III
(Practical)**

Program/ Class: Degree/ BA	Year: Third	Semester: Sixth
Subject: Geography		
Course Code: 0611165	Course Title: Project Report-2	
Course Outcomes: Students will be able to understand <ul style="list-style-type: none"> • In-depth knowledge and application of RS and GIS technology in research. • Learn to prepare Project Report. 		
Credits: 3	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w		
Unit	Topics	No. of Lectures
I	Project report shall be on any topic of interest of students. It must include area of disaster management, Remote sensing and GIS technology directly or indirectly. Like project can be based on investigation of any issue using above technology or these technology must be used in data analysis or representation. Note: <ol style="list-style-type: none"> 1. Each faculty member shall teach and guide to his/her Group of students independently. 2. Students shall choose supervisor according to his/ her research interest and specialization of Faculty member. 	30
Suggested Readings:		
This course can be opted as an elective by the students of following subjects: Open for all		
Suggested Continuous Evaluation Methods: Seminar, Presentation, VIVA		
Suggested equivalent online courses		