



ख़्वाजा मुईनुद्दीन चिश्ती भाषा विश्वविद्यालय, लखनऊ, उत्तर प्रदेश (भारत)
Khwaja Moinuddin Chishti Language University, Lucknow, U.P. (India)

U.P. STATE GOVERNMENT UNIVERSITY,
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Department of Geography

Undergraduate or B.A./B.Sc. in Geography Year Wise Course Structure Session: 2022-23

As per NEP 2020

Year	Semester	Subject I	Subject II	Subject III	Subject IV	Vocational	Co-Curricular	Industrial Training/Survey/ Research Project	(Minimum Credits) For the year	(Cumulative Minimum Credits) Required For Award of Certificate/ Diploma/ Degree
		Major	Major	Major	Minor Elective	Minor	Minor	Major		
		4/5/6 Credits (Theory: 4 Credit & Practical: 2 Credit)	4/5/6/ Credits	4/5/6/ Credits	4/5/6/ Credits	3 Credits		4 Credits		
Year	Semester	Own Faculty	Own Faculty	Own /Other Faculty	Other Subject/ Faculty	Vocational/ Skill Development Course	Co-Curricular Course (Qualifying)	Inter/Intra Faculty related to main Subject		
1	I	1.Fundamental of Geography (T) 2.Elements of Map and Surveying (P)			Basic Concepts in Geography (T): 4 Credit	Computer Application in Geography (T): 3 Credit			46	(46) Certificate in Faculty



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Programme/Class: Certificate/ B.A./B.Sc.	Year: I	Semester: I
Subject- Geography		
Course Code: GRB CC 101T	Course Title: Fundamentals of Geography	
Course Outcomes: Students will be able to understand 1. The basics of geography as a discipline 2. Our solar system 3. Man nature relationship		
Credits: 4	Course Type-Core Course (Theory)	
Max. Marks: 100 (25+75)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4 T-0/w		
Unit	Topics	No. of Lectures Total=60
I	Meaning, Definition, Nature, Scope and approaches of Geography, Objectives and Relevance; Basic Concepts of Geography, Branches of Geography; Dualism in Geography.	15
II	The Physical Dimension in Geography: The Universe; The solar system, The Earth Movement, Latitudes, Longitudes & Time calculation.	15
III	The Human Dimension in Geography: Man & Environment; Society, Culture & Civilization; Population; Economic Structure.	15
IV	Applied Geography: Recent Trends in Geography; Modern Concepts in Geography; Study of Geography in India; Career Opportunities for Geographers.	15
Suggested Reading: 1. Dikshit R.D. Geographical Thought (2000) A contextual History of Ideas. Prentice Hall of India Pvt. Ltd. 2. Dwivedi A. K. (2021), Bhoogol KeMool Siddhant, Vanya Publications, Kanpur. 3. Dwivedi A. K. (2021), Fundamentals of Geography, Vanya Publications, Kanpur. 4. Husain Majid (1984) : Evolution of Geographical Thought, Rawat Publications, Jaipur. 5. Jain Ritu (2018), Fundamental of Geography, Pratyush Publication, Dehli. 6. Kaushik S. D. (2018) BhoogolikVichardharaye, Rastogi Publication Meerut.		
Suggested Continuous Evaluation Methods: • Test with multiple choice questions/short and long answer questions		



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Program/Class: Certificate/B.A./B.Sc.	Year: I	Semester: I
Subject: Geography		
Course Code: GRB CC 102P	Course Title: Elements of Map and Surveying	
Course Outcome: On completion of this course, learners will be able to understand the basic idea of Map, Scale and Topographic sheets		
Credits: 2		Course Type: Core Course (practical)
Max. Marks: 100 (25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): P - 02 /w		
Unit	Topics	No. of Lectures=30
I	Cartography: Nature and Scope. Scales—Concept and application; Graphical Construction of Plain, Comparative, Diagonal Scales and Vernier scale. Map Projections: Classification, Properties and Uses; Graphical Construction of Polar Zenithal, Stereographic, Bonne's and Mercator's Projections, and reference to Universal Transverse Mercator (UTM) Projection	15
II	Topographical Map: Coverage, Scale and Topo Symbol, Interpretation Survey of India Toposheets. Representation of landforms by Contours. Slope Analysis — Wentworth's method. Basics of Surveying: Surveying: meaning, classification, merits and demerits. Plane Table Surveying.	15
Suggested Readings: 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): PrayogikBhugol., 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		

Programme/Class: Certificate /B.A./B.Sc.	Year: I	Semester: I
Subject- Geography		
Course Code: GRB GE 103T	Course Title: Basic Concept In Geography	



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Course outcomes: Students will able to

- Understand the concept of Meaning, Concept, Nature and Scope of Geography
- Understand the Origin of the solar system and earth
- Understand the theories and fundamental concepts of Geo-tectonic and Geomorphology.
- Understand earth's tectonic and structural evolution.
- Gain knowledge about earth's interior.
- Develop an idea about concept of plate tectonics, and resultant landforms.
- Gain knowledge about major themes of human Geography.

Credit: 4

Course Type - General Elective 1

Max. Marks: 100 (25+75)

Min. Passing Marks:40

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

Unit	Topics	No. of Lectures Total=60
I	Meaning, Concept, Nature and Scope of Geography, Branches of Geography, Approaches in Geography, Origin of the solar system and earth	15
II	Physical Geography: Earth's interior; rocks; Continental drift, Plate tectonics; Weathering and Erosion, fluvial and arid landscapes, Composition and structure of the atmosphere, Temperature, Pressure and pressure belt, Cyclone & Koppen's classification of Climate, Ocean Floor and relief of Indian Ocean, salinity, Ocean Currents (Ref-Atlantic ocean)	15
III	Human Geography: Population Growth and Distribution; Population Composition; Demographic Transition Theory, Population- Resource Relations Settlements and its type, Trend in Urbanization	15
IV	Dualism in Geography Environmental Determinism and Possibilism, Systematic and Regional, Qualitative and Quantitative Recent trends in Geography	15

Suggested Readings:

1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge
2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company. N.D
3. Critchfield, H.J., (1966) General Climatology, Prentice Hall, New York.
4. Lydolf Paul E. (1985) The Climate of the earth, Rowman and Littlefield Publishers, Maryland, U.S.A
5. Lake, P. (1979): Physical Geography (English editions), Cambridge University Press, Cambridge.
6. Leong Goh Cheng (2003): Certificate Physical and Human Geography, Oxford University Press, New Delhi.
7. Monkhouse, F.J. (1979): Physical Geography. Methuen, London
8. Singh, S. (2003): Physical Geography. (English edition.). Prayag Pustak Bhawan, Allahabad
9. Vatal (Hukku) M. and Sharma R.C., Oceanography for Geographers, Chaitanya Publications
10. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York
11. Trewartha, G.T. (1987) Introduction to Climate, Mac Graw Hill, New York
12. Singh, S. (2003): Bhautik Bhoogol (Hindi edition), Prayag Pustak Bhawan



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Suggested Continuous Evaluation Methods:

- Test with multiple choice questions/short and long answer questions.

Programme/Class: Certificate B.A./B.Sc.	Year: I	Semester: I
Subject- Geography		
Course Code: GRB SDC 104T	Course Title: Computer Application in Geography	
Course outcomes: Students will be able to		
• Develop an idea about resource. • Understand the concept of different types of resources. • Acquire knowledge about different types of theories and models • Acquire knowledge about different types of power resources. • Students will demonstrate their knowledge of resource and environmental issues. Students will also be able to demonstrate their knowledge of the role that geography can play in analyzing resource / environmental degradation and improving resource / environmental management.		
Credits: 3	Course Type- Skill Development Course	
Max. Marks: 100 (25+75)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 2 P-4/w		
Unit	Topics	No. of Lectures Total=45
I	Computers: Definition, Characteristic; Hardware & Software; Number System; Operating Systems; Introduction to DOS, WINDOWS, WORD & EXCEL; Computer & Geographic Data: Scale of Measurement, Location Data, and Data Structure.	12
II	Computers in Cartography: Hardware and Software for Computer Mapping; Application of Computer Cartography	11
III	Simple Exercises for Representation of Geographic Data: Histogram, Bar Graphs, Line Graph, Multiple Line Graph, Scatter Diagram & Pie Diagram.	11
IV	Importance of Information Technology in Geographical Studies; Advantages of Internet, Browsing & Surfing the Geographical Sites; Web Pages; Portals & Down Loading Files.	11
Practical Record: A Project file consisting of 4 exercises using GPS on above mentioned themes.		
Suggested Reading:		
1. D.J.Unnwin& J.A. Dawson(1987): Computer Programming for Geographers, Longman,London. 2. Monmonier, M.S.(1982) : Computer Assisted cartography, Prentice Hall.		



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3. David J. Maguire (1989) : Computers in Geography, Longman scientific & Technical, London.
4. Paul M. Mather (1993): Computer application in geography John Wiley & Sons, New York U.S.A.
5. Cole & King (1968): Quantitative Geography.
6. Haggett Peter (1990): Geography a modern synthesis Harper international, New York.
7. Hammond B. (1974) : Quantitative techniques in Geography, McCullagh Pclarendon press

Suggested Continuous Evaluation Methods:

- Test with multiple choice questions/short and long answer questions

Programme/Class: Certificate /B.A./B.Sc.	Year: I	Semester: II
Subject- Geography		
Course Code: GRB CC 201T	Course Title: Human Geography	
Course outcomes: Student will able to - Gain knowledge about major themes of human geography. - Develop an idea about space and society. - Build an idea about population growth and distribution of population. - Know about population ñresource relationship.		
Credits: 4	Course Type-Core Course	
Max. Marks: 100(25+75)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4 T-2/w		
Unit	Topics	No. of Lectures Total=60
I	Introduction: Defining Human Geography; Major Themes; Contemporary Relevance, Approaches to the study of Human Geography	15
II	Space and Society: Cultural Regions; Races: physical and Socio-Economic Characteristics and Spatial Distribution, Religion and Language.Human Adaptation and Environment: Cold Region: Eskimo, Hot Region: Bushman	15
III	Population: Population Growth and Distribution; Population Composition; Demographic Transition Theory, Population-Resource Relations	15
IV	Settlements: Types of Rural Settlements; classification of Urban Settlements; Trends and Patterns of World Urbanization	15
Suggested Readings:		
1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.		
2. DeBlij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York.		



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3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10th edition.
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
5. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
6. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.
7. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
8. Norton, W. (2008): Human Geography, OxfordUniversity Press, New York. 5th ed.
9. Qureshi, M.H.(ed.) (2013) Paradigm Shift in Geography, Manak ,New Delhi
10. Singh, K. N. and Singh, J. (2001): ManavBhugol. GyanodayaPrakashan, Gorakhpur. 2nd edition.
11. Hassan M.I. (2005) Population Geography, Rawat Publication

Suggested Continuous Evaluation Methods:

- Test with multiple choice questions/short and long answer questions.

Program/Class: Certificate/BA/B.Sc.	Year: I	Semester: II
Subject: Geography		
Course Code: GRB CC202P	Course Title: Thematic Mapping and Surveying	
Course Outcomes: On completion of this course, learners will be able to: X Understand the basic idea of Map, Scale and Topographic sheets		
Credits: 2		Core Compulsory
Max. Marks: 100 (25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): P - 2 /w		
Unit	Topics	No. of Lectures Total=30
I	Maps ñ Classification and Types, Principles of Map Design. Diagrammatic Data Presentation ñ Line, Bar and Circle. Thematic Mapping Techniques ñ Properties, Uses and Limitations; Areal Data - Choropleth, Dot, Proportional Circles; Point Data ñ Isopleths.	15
II	Cartographic Overlays ñ Point, Line and Areal Data. Thematic Maps ñ Preparation and Interpretation. Instrumental Survey: Prismatic Compass	15



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Suggested Readings:

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

Programme/Class: Certificate/B.A./B.Sc.	Year: I	Semester: II
Subject- Geography		
Course Code: GRB SDC 203T	Course Title: :Introduction to Geospatial Technology	
Course outcomes: • The student will describe the fundamental concepts of Geographic Information Science and Technology. • The student will demonstrate proficiency in the basic functions of geospatial software. • The student will demonstrate proficiency in the creation and acquisition of spatial data.		
Credits: 3		Course Type-Core Course
Max. Marks: 100(25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4 T-2/w		
Unit	Topics	No. of Lectures Total=45
I	Introduction to Geospatial Technology, Why to study Geospatial Technology, Importance of Geospatial Technology, Components of Geospatial Technology viz. Geographic Information Systems (GIS), Global Positioning Systems (GPS) and remote sensing, Scope and Objectives of geospatial technology.	11
II	Earth Resource Satellite: Techniques of satellite image interpretation, recognition elements: Tone, Color, Texture, Pattern, Shape, Size and associated Features.	11
III	Introduction and basic concept of geographical information system, Components of geographical information system and Advantages of GIS. Raster and Vector data for geographical entities, Global	12



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	positioning system (GPS), basic concepts, Characteristic of GPS Satellite. Benefits of Remote Sensing, GIS and GPS over conventional method of resource survey.	
IV	Earth Resources Management, Disaster Management, Water Resource Management, Urban Resources And Infrastructure Management	11

REFERENCE:

Text Book:

- Ahmed El-Rabbany; Introduction to GPS: The Global Positioning System, Second Edition; published by Artech House; ISBN 978-1-59693-017-9
- David L Verbyla; Satellite Remote Sensing of Natural Resources; Published by CRC Press; ISBN 1-55670-107-4.
- Gregory, I. and Ell, P. 2007. Historical GIS: Technologies, Methodologies and Scholarship, New York: Cambridge University Press
- Peterson, G. N. 2009. GIS Cartography: A Guide to Effective Map Design. Seattle: CRC Press.
- Jensen, J.R., "Remote Sensing of the Environment - An Earth Resources Perspective", Pearson Education, Inc. (Singapore) Pvt. Ltd., Indian edition, Delhi, 2000.
- George Joseph, "Fundamentals of remote sensing", Universities press (India) Pte Ltd., Hyderabad, 2003
- Sabins, F.F. Jr., "Remote Sensing - Principles and Interpretation", W.H. Freeman & Co., 2002 Edition.
- Reeves, Robert G., "Manual of Remote Sensing, Vol. I, American Society of Photogrammetry and Remote Sensing, Falls Church, Virginia, USA
- Lillesand, Thomas M. and Kiefer, Ralph, W., "Remote Sensing and Image Interpretation", 4th Edition, John Wiley and Sons, New York, 2000

Programme/Class: Diploma/B.A./B.Sc.	Year: I	Semester: III
Subject- Geography		
Course Code: GRB CC301T	Course Title: Physical Geography	
Course outcomes: Students will be able to understand		
Ç The Earth geomorphic transition from beginning to present day. Ç Plate tectonics and related movements Ç Landforms carved by various agents of erosion Ç Earth's climate and that factors that influence it Ç Oceans system and biogeography of the world.		
Credits: 4		Course Type-Core Course



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Max. Marks: 100(25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4 T-2/w		
Unit	Topics	No. of Lectures Total=60
I	Physical Geography, Nature, Definition and Scope, Origin of the Earth, Branches of Physical Geography.	15
II	Lithosphere ñ Internal Structure of Earth based on Seismic Evidences, Plate Tectonics and its associated features, Fluvial cycle of Erosion ñ Davis and Penck.	15
III	Atmosphere - Composition and structure, Heat Budget, Cyclones, Monsoon Climatic Classification (Koppen).	15
IV	Hydrosphere ñ Hydrological Cycle, Ocean Bottom Relief Features, Tides and Currents.	15
REFERENCE: Text Book: 1. Husain M., (2002), Fundamentals of Physical Geography, Rawat Publications, Jaipur. 2. Monkhouse, F. J. (2009), Principles of Physical Geography, Platinum Publishers, Kolkata. 3. Singh Savindra, (2017), Physical Geography, VashundharaPrakasah, Gorakhpur. 4. Strahler A. N. and Strahler A. H., (2008), Modern Physical Geography, John Wiley & Sons, New York.		

Programme/Class: Diploma/BA/B.Sc.	Year: II	Semester: III
Subject: Geography		
Course Code: GRB CC302P	Course Title: Statistical Techniques and Surveying	
Course outcomes: Students will be able to understand • 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	Course Type-Core Course	
Max. Marks: 100 (25+75)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): P - 2 /w		



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Unit	Topics	No. of Lectures Total=30
I	Use of Data in Geography: Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio), 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),	15
II	Measurement of Partitions (Deciles, Quartiles and Percentiles), Dispersion (Standard Deviation, Variance and Coefficient of Variation). Sampling: Probability sampling Non-probability sampling. Correlation and Regression	15
Suggested Readings: - Berry B. J. L. and Marble D. F. (eds.): Spatial Analysis ñ A Reader in Geography. - Ebdon D., 1977: Statistics in Geography: A Practical Approach. - Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGrawHill		

Programme/Class: Diploma/B.A./B.Sc.	Year: II	Semester: IV
Subject- Geography		
Course Code: GRB GE303T	Course Title: Sustainable Development	
Course outcomes: - Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development. - Gain knowledge about Sustainable Development Policies and Programmes		
Credit: 4	Course Type - General Elective 1	
Max. Marks: 100 (25+75)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4 /w		
Unit	Topics	No. of Lectures Total=60
I	Sustainable Development: Definition, Components, Limitations and Historical Background, The Millennium Development Goals: National Strategies and International Experiences,	15
II	Sustainable Regional Development: Need and Examples from different Ecosystem	15
III	Inclusive Development: Education, Health; Climate Change: Human Rights to Health: Poverty, Diseases; the challenges	15



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	of Universal Health Coverage; Policies and Global Cooperation for Climate Change	
IV	Sustainable Development Policies and Programmes: The Proposal for SDGs at Rio+20; Illustrative SDGs; National Environmental Policy, CDM	15
Suggested Readings: 1. Agyeman, Julian, Robert D. Bullard and BOB Evans (eds) (2003) Just Sustainabilities: Development in an Unequal World, London,: Earthscan 2. Baker, Susan (2006) Sustainable Development, Milton Park, Abingdon, Oxon, New York Routledge 3. Brosius, Peter (1997) Endangered Forest, endangered People: Environmentalist Representations of indigenous Knowledge ó Human Ecology 4. Lohman, Larry (2003) ó Re- imagining the population Debateô, Corner House Briefing 28 Robbins, Paul (2004) Political Ecology: A Critical Introduction, Blackwell Publishing		
Suggested Continuous Evaluation Methods: • Test with multiple choice questions / short and long answer questions		

Programme/Class: Diploma/B.A./B.Sc.	Year: II	Semester: III
Subject- Geography		
Course Code: GRB SDC304T	Course Title: Spatial Information Technology	
Course outcomes: • To develop an understanding of remote sensing, GIS technology and their potential applications • They can know about concept and components of Geographical Information System. • They understand the GIS Data Structures. • Develop an idea about GIS Data Analysis. • Know about application of GIS.		
Credit: 3	Course Type ñSkill Development Course	
Max. Marks: 100 (30+70)	Min. Passing Marks:40	
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 3 /w		
Unit	Topics	No. of Lectures Total=45
I	Introduction: Definition, Concept and Historical Development	11
II	Spatial Information/ Data: Web Data sources; Registration and Projection; Data Structure; Data interpolation and Modelling	12
III	Working of Spatial information system, Functions of Spatial information system: Information retrieval; Topological	11



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Khwaja Moinuddin Chishti Language University, Lucknow, U.P. (India)

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	Modelling Networks Overlay; Data output	
IV	Application of Spatial Information Technology	11
Suggested Readings: 1. C. Esperanca and H. Samet, An overview of the SAND spatial database system, to appear in Communication of the ACM, 1997, http://www.cs.umd.edu/~hjs/pubs/sandprog.ps.gz 2. G. Hjaltason and H. Samet, Ranking in Spatial Databases in Advances in spatial databases- 4th Symposium, SSD95, M.J. Egenhofer and J.R. Herring, Eds., Lecture Notes in Computer Science 951, Springer- Verlag, Berlin, 1995, 83-95. http://www.cs.umd.edu/~hjs/pubs/incnear.ps 3. http://www.cs.umd.edu/hjs/pubs/kim.ps 4. H.Samet, Application of Spatial Data Structure: Computer graphics, Image Processing and GIS, Addison Wesley, Reading M.A 1990 ISBN 0-201-50300-D		
Suggested Continuous Evaluation Methods: • Test with multiple choice questions/short and long answer questions.		

Program/Class: Diploma /BA/B.Sc.	Year: II	Semester: IV
Subject: Geography		
Course Code: GRB CC401T	Course Title: Economic Geography	
Course Learning Outcomes On completion of this course, learners will be able to: X Define Meaning, concepts and approaches of Economic Geography X Understand the nature of Economic activities, Resource Distribution X Understand the Effect of globalization on developing countries.		
Credits: 4		Course Type-Core Course
Max. Marks: 100 (25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w		
Unit	Topics	No. of Lectures Total=60
I	Meaning, concepts and approaches of Economic Geography; agricultural region of the world (Derwent Whittlesey). Resource: meaning, concept and classification. Spatial organization of economic activities.	15
II	Economic organization of space, Forestry, fishing and mining activities. Agricultural typologies, agricultural land use model (J.H. Von Thunen).	15
III	Types of industries; Factors of location of industries; iron and steel industry, cotton textiles and sugar; Theory of industrial location (AlfredWeber).	15



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IV	World transportation: Sea routes and major trans- continental railways. WTO and International trade: Patterns and trends; Effect of globalization on developing countries.	15
Suggested Readings: 1. B N Singh (2021) Manav EvamArthikBhugol, PravalikaPublication,Allahabad 2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, NewYork.. 3. Gautam, A. (2006): AarthikBhugolKeMoolTattava, Sharda Pustak Bhawan, Allahabad. 4. Guha, J. S. and Chatteraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata. 5. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York. 6. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff , New Jersey, Prentice Hall 7. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London. 8. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi. 9. Sokal, Martin 2011. Economic Geographics of Globalisation: A short Introduction. Cheltenham, UK : Edward Elgar. 10. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi, 11. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts		
Suggested Continuous Evaluation Methods: Assignment / test / Quiz(MCQ) / Seminar/Presentations		
Suggested equivalent online courses: Courses on Swayam / MOOCs https://onlinecourses.nptel.ac.in/noc21_hs50/preview		

Program/Class: Diploma /BA/B.Sc.	Year: II	Semester: IV
Subject: Geography		
Course Code: GRB CC402P	Course Title: Weather Maps, Geological Maps and Surveying	
Course Learning Outcomes: On completion of this course, learners will be able to: X Identify the various Survey Operations and Survey Instruments X To understand the idea of Basic and applied Instrumental surveying		
Credits: 2		Core Course
Max. Marks: 100 (25+75)		Min. Passing Marks:40
Total No. of Lectures-Tutorials-Practical (in hours per week): P - 2 /w		
Unit	Topics	No. of Lectures=30



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I	Weather Maps, Study and Interpretation of Weather Map, Weather Forecasting. Geological Maps: Types, Signs, Bed and Bedding plane, Rock Outcrop, Dip, Strike etc. Construction of Geological Sections.	15
II	Instrumental Survey: Indian Clinometer. Instrumental Survey: Theodolite	15
Suggested Readings: 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 Levelling, 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), Kalyani 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.		

Programme/Class: Diploma/B.A./B.Sc.	Year: II	Semester: IV
Subject- Geography		
Course Code: GRM SDC 403	Course Title: Land Surveying and GPS Practical	
Course outcomes: • Learn the usages of survey instruments. • Brings direct interaction of different types of surveying instruments like Dumpy level and Theodolite with environment. • Develop an idea about GPS Surveying and Mapping using Hand held GPS • Develop an idea about different types of thematic mapping techniques.		
Credit:3		Course Type –Skill Development Course
Max. Marks: 100 (25+75)		Total No. of Lectures-45
Unit	Topics	No. of Lectures (Hours)per week=45
I	Theory and Principles: Surveying: Definition, Classification, objectives, Principles, Plane Table and Geodetic surveys.	12
II	Field Work: Levelling by Dumpy level; Resection: (two	11



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	point and three point problem) by plane table.	
III	GPS Theory: Overview of Global Positioning System : GPS Receivers, Satellite Constellations, Segments, Antennas, Signal Codes and errors; Accuracy of GPS measurements; Application of GPS	11
IV	Field Work: GPS Surveying and Mapping: Field exercise using Hand held GPS, Triangulation: Principles, Base line measurement, extension of Base	11
Suggested Readings: 1. Aylmer Johnson. 2004 Plane and Geodetic Surveying. CRS Press 2. Dorling, D. and Fairborn, D. (1997): Mapping. Ways of Representing the World. Longman, Harlow. 3. Fraser Taylor, D.R. (1980): The Computer in Contemporary Cartography. John Wiley and Sons, New York. 4. Fraser Taylor, D.R. (ed.) (1983): Graphic Communication and Design in Contemporary Cartography. John Wiley and Sons, New York. 5. Griffith, D. A. and Amehein (1997): Statistical Analysis for Geographers. Prentice Hall, Englewood Cliffs, New Jersey. 6. Gupta K.K and Tyagi, V.C., 1992: Working with Map, Survey of India, DST, New Delhi 7. Kanetkar, T.P. and Kulkarni, S.V. (1967): Surveying and Levelling, Part II, A.V.G. Prakashan, Poona.		
Suggested Continuous Evaluation Methods: • Test with multiple choice questions/short and long answer questions.		