Syllabus for
BA/B.Sc.(Honours) Geography
Choice Based Credit System (CBCS)

Course effective from the academic year 2019-20

1st Semester

GAUHATI UNIVERSITY

Guwahati-781014

September 2019

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Class 1 Hour 1	Duration	Credit
1 Theory Class	1 Hour	1
1 Tutorial Class	1 Hour	1
1 Practical Class	2 Hour	1

Credit and Marks distribution scheme for CBCS Curriculum: Honours Course (1st Semester)

Semester	Course Type	Paper Code	Paper Name	Credits	Full Marks
Semester I Marks 400 Credit 22	Ability enhancement Course	ENG-AE-1014/ ASM-AE-1014	English Communication Paper, Assamese/ MIL Communication paper	4	100
	Honours Core	GGY - HC – 1016	Geomorphology (Theory + Practical)	4+2=6	100
		GGY - HC – 1026	Cartographic Techniques (Theory + Practical)	4+2=6	100
	Generic Elective paper (Anyone)*	GGY- HG- 1036	Physical Geography	6	100
		GGY - HG – 1046	Disaster management	6	100
		GGY - HG – 1056	Geography of Tourism	6	100

Paper Type	Total Marks	Attendance	Internal Assessment	Theory part	Practical Examination			Type of questions and Marks				Time of Exams
					Assignment	Note Book	Viva	MCQ 1X4	Very Short 2X3	Short 5X2	Long Question 10X3	
Theory	65		15	50				4	6	10	30	3 Hours
Practical	35		5		25	3	2	-	-	-	10+8+7=25	3 Hours

*Note: Honours Geography students have to take generic subjects from other disciplines

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Name and Code of the Courses

Core Courses (14 Compulsory Papers)

Semester I

GGY - HC - 1016: Geomorphology

GGY - HC - 1026: Cartographic Techniques

Semester II

GGY - HC - 2016: Human Geography

GGY - HC - 2026: Thematic Cartography

Semester III

GGY - HC - 3016: Climatology

GGY - HC - 3026: Geography of India

GGY - HC - 3036: Statistical Methods in Geography (Practical)

Semester IV

GGY - HC - 4016: Economic Geography

GGY - HC - 4026: Environmental Geography

GGY - HC - 4036: Remote Sensing and GIS (Practical)

Semester V

GGY - HC - 5016: Regional Planning and Development

GGY - HC - 5026: Field Work and Research Methodology (Practical)

Semester VI

GGY - HC - 6016: Evolution of Geographical Thought

GGY - HC - 6026: Disaster Management based Project Work (Practical)

Skill Enhancement Course (2 Compulsory Papers)

Semester III

GGY - SE - 3044: Remote Sensing (Practical)

GGY - SE - 3054: Advanced Spatial Statistical Techniques

Semester IV

GGY - SE - 4044: Geographical Information System (Practical)

GGY - SE - 4054: Research Methods (Practical)

Discipline-Specific Elective Course for Honours (4 Compulsory Papers)

Semester V

DSE-1

GGY - HE - 5036: Population Geography

GGY - HE - 5046: Resource Geography

DSE-2

GGY - HE - 5056: Urban Geography

GGY - HE - 5066: Agricultural Geography

Semester VI

DSE-3

GGY - HE - 6036: Geography of Health and Wellbeing

GGY - HE - 6046: Political Geography

DSE-4

GGY - HE - 6056: Hydrology and Oceanography

GGY - HE - 6066: Social Geography

GGY - HE – 6076: Project Work/Dissertation

Note: Dissertation/Project: Engaging Students in a Project/ Dissertation work, which requires knowledge application and problem-solving, is considered to be important in the learning process. All students enrolled in an undergraduate degree program (Honours) will have the option of choosing to undertake Project/Dissertation work for 6 credits in lieu of a 6 credit Discipline Specific Elective course in the Sixth semester only

Generic Elective Course for Honours (4 Compulsory Papers)

Semester I (Anyone)

GGY- HG- 1036 Physical Geography

GGY - HG - 1046: Disaster Management

GGY - HG - 1056: Geography of Tourism

Semester II (Anyone)

GGY- HG- 2036 Human Geography

GGY - HG - 2046: Spatial Information Technology

GGY - HG - 2056: Regional Development

Semester III (Anyone)

GGY - HG - 3066: General Cartography (Practical)

GGY - HG - 3076: Climate Change: Vulnerability and Adaptation

GGY - HG - 3086: Rural Development

Semester IV (Anyone)

GGY - HG - 4066: Environmental Geography

GGY - HG - 4076: Industrial Geography

GGY - HG - 4086: Sustainable Development

Note: Practical paper will not have tutorials.

Core Course

CBCS-based U.G. Course in Geography, 2019
Syllabus of Core Course

Course Name: Geomorphology
Paper Code: GGY - HC - 1016

Course objectives

- To provide a general idea about the topographic and surficial characteristics of the earth's surface to the students.
- To make the students aware of the dynamic geomorphic processes responsible for the development of landforms of varied types and nature.
- To apply scientific knowledge on landform development based on geomorphic concepts, principles and theories.

Course outcomes

- The students will learn that the earth is unstable and it is undergoing constant changes due to dynamic earth's processes.
- The students will come to know about the meaning and scope of geomorphology as a major branch of Physical Geography.
- After gaining knowledge based on the contents embodied in this paper, the students will be able to realize the importance of geomorphological knowledge as applied in various developmental activities executed in different areas.

Geomorphology Part A (Theory) Credit 4 (40 Classes)

1. Geomorphology: Nature, Scope and Significance (4 classes)
2. Structure and characteristics of the earth's crust and interior (4 classes)
3. Forces of landform development: Endogenetic forces (folding, faulting earthquakes and volcanoes) and exogenetic forces (weathering, erosion and mass wasting) (10 classes)
4. Earth Movements: Continental Drift Theory, Isostasy, Mountain building: Views of Holmes and Kober, Plate tectonics. (10 classes)
5. Concept of Cycle of Erosion: Davis and Penck, Landform development under Fluvial, Aeolian and Glacial conditions. (12 classes)

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Geomorphology Part B (Practical) Credit 2

(20 classes of two-hour duration each)

1. Study of Topographical Maps: Topographical map content and numbering system, the general interpretation of toposheets in respect of physical characteristics. (5 classes) (3 Assignments)
2. Profile Drawing (serial, superimposed, projected and composite). (4 classes) (3 Assignments)
3. Preparation of Slope Map / Relative Relief Map: Wentworth's method and Smith's method (5 classes) (3 Assignments)
4. Delineation of drainage basin and drainage network, construction of cross and long profiles, stream ordering by Horton and Strahler's method (7 classes) (6 Assignments)

Reading List

1. Bloom A. L., 2003: *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, New Delhi.
2. Bridges E. M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.
3. Christopherson, Robert W., (2011), Geosystems: *An Introduction to Physical Geography,* 8 Ed., Macmillan Publishing Company
4. Kale V. S. and Gupta A., 2001: *Introduction to Geomorphology*, Orient Longman, Hyderabad.
5. Knighton A. D., 1984: *Fluvial Forms and Processes*, Edward Arnold Publishers, London.
6. Richards K. S., 1982: *Rivers: Form and Processes in Alluvial Channels*, Methuen, London.
7. Selby, M.J., (2005), *Earth's Changing Surface,* Indian Edition, OUP
8. Skinner, Brian J. and Stephen C. Porter (2000), *The Dynamic Earth: An Introduction to Physical Geology,* 4th Edition, John Wiley and Sons.
9. Strahler, A. N. and Strahler, A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.
10. Thornbury W. D., 1968: *Principles of Geomorphology*, Wiley.
11. Steers, J.A., 1988: *The Unstable Earth*, Kalyani Publishers, New Delhi.
12. Monkhouse, F.J. and Wilkinson, H.R., 1989: *Maps and Diagrams*, B.I. Publications Ltd., Mumbai.

13. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.
14. Singh, L.R., 2013: *Fundamentals of Practical Geography*, Sharda Pustak Bhawan, Allahabad.
15. Sarkar, A., 2015: *Practical Geography: A Systematic Approach*. Orient Black Swan Private Ltd., New Delhi
16. Misra, R. P. and Ramesh, A., 1989: *Fundamentals of Cartography*, Concept Publishing Company, New Delhi.

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CBCS-based U.G. Course in Geography, 2019
Syllabus of Core Course

Course: Cartographic Techniques
Paper Code: GGY - HC - 1026

Course objectives

This course on Cartographic Techniques provides a general understanding of the field of cartography including its modern developments and importance in geographic study. It more particularly focuses on various types of map scale and their construction; principles of map projection and construction of selected few; and preparation of thematic maps through the representation of various geographical data using different cartographic techniques.

Course outcomes

- Understanding the importance of various cartographic techniques in geographical study.
- General understanding of map type, map scale and map content.
- An acquaintance of different cartographic techniques for representation of various facets of physical and human geographic data of any area.

Cartographic Techniques Part A (Theory) Credit 4 (40 classes)

1. Cartography – Meaning, Development (Traditional and Modern Cartography) and Importance of Cartography in Geography. (8 classes)
2. Shape and size of the earth; coordinate system (latitude and longitude) (8 classes)
3. Maps: Types, scale and content, representation of point, line and area in maps (8 classes)
4. Map Projections: Concept of Map Projection, Classification of Map Projections and choice of map projections. (10 classes)
5. Thematic mapping: Concept and types (6 classes)

Cartographic Techniques Part B (Practical) Credit 2

(20 classes of two-hour duration each)

1. Construction of graphical scale (linear, diagonal and comparative); conversion of map scales (6 classes) (10 Assignments)
2. Construction of graticules of Zenithal Polar Gnomonic, Zenithal Polar Stereographic, Simple Conical with one standard parallel, Bonne's Conical and Gall's Stereographic Cylindrical projections along with their properties, uses and limitations. (8 classes) (5 Assignments)

3. Preparation of thematic maps (choropleth, isopleth and pie diagram) for representing various physical and human geographic data. (6 classes) (6 Assignments)

Reading List

1. Anson, R. and Ormelling, F. J., 1994: *International Cartographic Association: Basic Cartographic Vol.,* Pergaman Press.
2. Gupta, K.K. and Tyagi, V. C., 1992: *Working with Map*, Survey of India, DST, New Delhi.
3. Misra, R.P. and Ramesh, A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
4. Monkhouse, F. J. and Wilkinson H. R., 1973: *Maps and Diagrams*, Methuen, London.
5. Rhind, D. W. and Taylor D. R. F., (eds.), 1989: *Cartography: Past, Present and Future*, Elsevier, International Cartographic Association.
6. Robinson, A. H., 2009: *Elements of Cartography*, John Wiley and Sons, New York.
7. Singh, R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.
8. Sarkar, A. (2015) *Practical Geography: A Systematic Approach*. Orient Black Swan Private Ltd., New Delhi
9. Singh, L.R., 2013: *Fundamentals of Practical Geography*, Sharda Pustak Bhawan, Allahabad.
10. Talukder, S., 2008: *Introduction to Map Projections*, EBH Publishers (India), Guwahati.

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Generic Elective Course for Honours

CBCS-based U.G. Course in Geography, 2019
Syllabus of Generic Elective Papers

Course Name: Physical Geography

Paper Code: GGY-HG-1036

Course objectives

a) To provide a general idea about the topographic and surficial characteristics of the earth's surface to the students.

b) To make the students aware of the dynamic geomorphic processes responsible for the development of landforms of varied types and nature.

c) To impact applied scientific knowledge on landform development based on geomorphic concepts, principles and theories.

Specific outcomes

(i) The students will learn that the earth is unstable and it is undergoing constant changes due to dynamic earth's processes.

(ii) The students will come to know about the meaning and scope of geomorphology, which a major branch of Physical Geography.

(iii) After gaining knowledge based on the contents embodied in this paper, the students will be able to realize the importance of geomorphological knowledge as applied in various developmental activities executed on the land and over the earth's surface.

Physical Geography 4 credit (40 classes)

1. Physical Geography – Definition and Scope, Components of Earth System. (6 Classes)
2. Atmosphere – Composition and the vertical structure, Heat Balance, Global Circulation Pattern, Monsoon, Climatic Classification (Koppen). (10 Classes)
3. Lithosphere – Internal Structure of the Earth based on Seismic Evidences (10 Classes)
4. Endogenetic and Exogenetic processes, Works of River, Fluvial Cycle of Erosion – Davis (14 Classes)

2 Credit (20 classes) (in lieu of practical classes)

5. Hydrosphere – Hydrological Cycle, Ocean Bottom Relief Features, Tides and Currents, Oceanic deposits. (Item No. 5 is only for Generic elective students)

(Students who opt Physical Geography as regular core will have to do a 2 credit practical course instead of Item No. 5)

Reading List

1. Conserva, H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler, R. E., Petersen, J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett, N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice-Hall, N.J.
6. Husain, M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler, A. N. and Strahler, A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

Generic Elective Course for Honours

CBCS-based U.G. Course in Geography, 2019
Syllabus of Generic Elective Papers

Course Name: Disaster Management

Paper Code: GGY - HG – 1046

(60 Classes)

Course objectives

- To make the students aware of the types and nature of disasters on Spatio-temporal dimensions.
- To provide information and knowledge about how disasters can be checked and managed.

Course outcomes

- The students will be able to analyse the causes and management issues related to disasters taking place in students' own localities.
- (ii) The students will be well versed with the various disaster management strategies and their applicability in different situations.

Disaster Management

1. Hazard and Disasters: Concept, Definition and types (6 Classes)

2. Disasters in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping (20 Classes)

3. Disasters in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping. (12 Classes)

4. Manmade disasters: Causes, Impact, Distribution and Mapping (8 Classes)

5. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post Disasters (14 Classes)

Reading List

1. Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
3. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
4. Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
6. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
7. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

CBCS-based U.G. Course in Geography, 2019

Syllabus of Generic Elective Papers

Course Name: Geography of Tourism

Paper Code: GGY - HG – 1056

(60 Classes)

Course objectives

- This paper introduces students to the field of tourism from the lens of a geographer and its specificities
- It seeks to develop new insights among students on how tourism and allied activities shape the economy and geography of an area, region, country or the globe.

Course outcomes

- The paper will be useful for students in developing ideas on how geographical factors tangent on tourism activities and how geographers seek to address issues of development and carrying capacities of varied environments.
- It will build skills for students seeking to enrol in a research programme and/or provide openings for them with tourism/eco-tourism planning agencies.

Geography of Tourism

1. Scope and Nature: Concepts and Issues, Tourism, Recreation and Leisure Inter-Relations; Geographical Parameters of Tourism by Robinson. (12 Classes)

2. Type of Tourism: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage (12 Classes)

3. Recent Trends of Tourism: International and Regional; Domestic (India); Eco-Tourism, Sustainable Tourism, Meetings Incentives Conventions and Exhibitions (MICE) (12 Classes)

4. Impact of Tourism: Economy; Environment; Society (8 Classes)

5. Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert, North East India and Coastal Areas; National Tourism Policy (16 Classes)

Reading List

1. Dhar, P.N. (2006) International Tourism: Emerging Challenges and Future Prospects.

Kanishka, New Delhi.

2. Hall, M. and Stephen, P. (2006) Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.

3. Kamra, K. K. and Chand, M. (2007) Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
4. Page, S. J. (2011) Tourism Management: An Introduction, Butterworth-Heinemann-The USA. Chapter 2.
5. Raj, R. and Nigel, D. (2007) Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by, CABI, Cambridge, USA, www.cabi.org.
6. Tourism Recreation and Research Journal, Center for Tourism Research and Development, Lucknow
7. Singh Jagbir (2014) "Eco-Tourism" Published by - I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

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