SAINT CLARET COLLEGE (AUTONOMOUS), ZIRO

(Affiliated to Rajiv Gandhi University, Doimukh)

ARUNACHAL PRADESH

DEGREE PROGRAMME

B.A. GEOGRAPHY

(Offered as per NEP 2020)

SYLLABUS

(Effective from the academic year 2024 – 2025)

SAINT CLARET COLLEGE (AUTONOMOUS), ZIRO
(Affiliated to Rajiv Gandhi University, Doimukh, Arunachal Pradesh)

DEPARTMENT OF GEOGRAPHY

B.A./B.Sc. DEGREE: GEOGRAPHY

COURSES OF STUDY OFFERED FOR SEMESTER 1 AND 2
(Effective from the Academic Year 2024-2025)
(As per NEP 2020)

Subject Code	Title of Course	Credits	Total Hours			Exam Hours	Marks		
			Lecture Hours (L)	Tutorial Hours (T)	Practical Hours (P)		Continuous Assessment	End Semester	Maximum
Semester - 1									
24GE/CC/PG14	Physical Geography	4	4	1	0	3	20	80	100
24GE/MC/PG14	Physical Geography	4	4	0	0	3	20	80	100
24GE/SE/FC13	Fundamentals of Cartography	3	0	0	6	3	20	80	100
24GE/VA/ES12	Environmental Science 1	2	2	0	0	3	20	80	100
Semester - 2									
24GE/CC/HG24	Human Geography	4	4	1	0	3	20	80	100
24GE/MC/HG24	Human Geography	4	4	0	0	3	20	80	100
24GE/SE/RS23	Remote Sensing	3	0	0	6	3	20	80	100
24GE/VA/ES22	Environmental Science 2	2	2	0	0	3	20	80	100

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B.A./B.Sc.: GEOGRAPHY

SYLLABUS
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PHYSICAL GEOGRAPHY

CODE: 24GE/CC/PG14 **CREDITS: 4**
L T P: 4 1 0
TOTAL TEACHING HOURS: 60

LEARNING OBJECTIVES:

1. Understanding the basic concepts and different dimensions of Physical Geography.
2. General overview on geomorphology, climatology and oceanography

COURSE OUTCOMES:

1. Gain a perspective on various concepts of physical geography
2. Have comprehensive knowledge of applicability and usage.

Unit 1: Nature and scope of Physical Geography: **(15hrs)**

1.1 Basic concepts, nature and scope of physical geography.
1.2 Interrelationship with other branches of Earth Sciences.
1.3 Historical development of Physical Geography.

Unit 2: Geomorphic forms and processes: **(15hrs)**

2.1 Agents of denudation.
2.2 Weathering and mass movement/wasting.
2.3 Fluvial, wind, glacial and karst landforms.

Unit 3: Climatology: **(15hrs)**

3.1 Elements of weather and climate.
3.2 Composition and structure of atmosphere.
3.3 Atmospheric pressure and winds.
3.4 Insolation and heat budget.
3.5 Air masses, fronts, cyclones and anticyclones.

Unit 4: Oceanography: **(15hrs)**

4.1 Ocean relief- Continental shelf, slope, deeps and trenches, Abyssal plain.
4.2 Ocean Temperature and Salinity.
4.3 Waves, tides and ocean currents.

TEXT BOOKS:

1. Khullar, D. R. (2012).Physical Geography. New Delhi. Kalyani Publishers.
2. Singh, S. (2009). Physical Geography. Allahabad. Prayag Pustak Bhawan.

BOOKS FOR REFERENCE:

1. Christopherson, R. W. and Birkeland, G. H. (2012). Geosystems. An Introduction to Physical Geography (8th Edition), New Jersey. Pearson Education.
2. Critchfield, H. J. (1987). General Climatology. New Delhi, Prentice-Hall of India.
3. Das Gupta, A. and Kapoor, A. N. (2001). Principles of Physical Geography, New Delhi.S. C. Chand & Company Ltd.
4. Lal, D. S. (2006). Jalvayu Vigyan (Hindi). Allahabad. Prayag Pustak Bhavan.
5. Oliver, J. E., and Hidore J. J. (2002).Climatology: An Atmospheric Science..Pearson Education. New Delhi.
6. Pinet, P. R. (2008). Invitation to Oceanography (Fifth Edition). USA, UK and Canada, Jones and Barlett Publishers.

SCHEME OF EVALUATION:

CONTINOUS INTERNAL ASSESSMENT: 20 marks

Written Test : 20 marks
Duration of test : 1 hour
Third Component : Assignment / Quiz /Seminar / Project work, etc. (Any one only)

END SEMESTER EXAMINATION: 80 marks

QUESTION PAPER PATTERN:

Duration of Examination: 3 hrs
Section A: 4 x 5 = 20 marks (4 out of 6 questions to be answered in 200 words)
Section B: 3 x 10= 30 marks (3 out of 5 questions to be answered in 500 words)
Section C: 2 x 15 = 30 marks (2 out of 4 questions to be answered in 800 words)

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B.A./B.Sc.: GEOGRAPHY

SYLLABUS
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PHYSICAL GEOGRAPHY

CODE: 24GE/MC/PG14 **CREDITS: 4**
L T P: 4 0 0
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BOOKS FOR REFERENCE:

1. Christopherson, R. W. and Birkeland, G. H. (2012). Geosystems. An Introduction to Physical Geography (8^{th} Edition), New Jersey. Pearson Education.
2. Critchfield, H. J. (1987). General Climatology. New Delhi, Prentice-Hall of India.
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Written Test : 20 marks
Duration of test : 1 hour
Third Component : Assignment / Quiz /Seminar / Project work, etc. (Any one only)

END SEMESTER EXAMINATION: 80 marks

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FUNDAMENTALS OF CARTOGRAPHY

CODE: 24GE/SE/FC13 **CREDITS: 3**
L T P: 0 0 6
TOTAL HOURS: 90

LEARNING OBJECTIVES:

1. To create professional and aesthetically pleasing maps through thoughtful application of cartographic conventions.
2. To develop an understanding of the concepts regarding scale, map projections to suit map purposes.
3. To better understand the techniques of interpretation of topographical and weather maps.

COURSE OUTCOMES:

1. Read and prepare maps.
2. Comprehend locational and spatial aspects of the earth surface.
3. Use and importance of maps for regional development and decision making.

Unit 1: Cartography: **(30 hrs)**

1.1 Nature, Scope and development.
1.2 Concept and types of Map Scales.
1.3 Mapping and surveying.

Unit 2: Scales and Topographical Maps: **(30 hrs)**

2.1 Graphical Construction of Plain, Comparative and Diagonal Scales.
2.2 Topographical maps: Interpretation of topographical and Weather maps.

Unit 3: Surveying: **(30 hrs)**

3.1 Plane table.
3.2 Prismatic compass.
3.3 Dumpy level.

TEXT BOOKS:

1. Singh, Gopal. (1998). Map Work and Practical Geography (4th Edition). Vikas Publishing House. Ahmedabad.

2. Mishra, R. P. (2014). Fundamentals of Cartography (Second Revised and Enlarged Edition). Concept Publishing. New Delhi.
3. Khullar, D. R. (2019). Essentials of Practical Geography. New Academic Publishing Co. Jalandhar.
4. Singh, R. L., & Singh, Rana. P. B. (2007).Elements of Practical Geography. Kalyani Publishers. New Delhi

BOOKS FOR REFERENCE:

1. Anson, R., and Ormelling F. J. (1994). International Cartographic Association: Basic Cartographic. Vol. Pregmen Press.
2. Gupta, K. K. and Tyagi V. C.(1992). Working with Map. Survey of India, DST. New Delhi.
3. Kraak, M. J. (2010). Cartography: Visualization of Geospatial Data (3rd edition). Pearson Education Ltd. London.
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 (6th Edition). John Wiley and Sons. New York.
7. Sarkar, A. (2015). Practical geography: A systematic approach. Orient Black Swan Private Ltd. New Delhi
8. Steers, J. A. (1970). An Introduction to the Study of Map Projections. University of London Press. London.
9. Khan, Zulfequar Ahmad. (1998). Text book of Practical Geography. Concept Publishing Company. New Delhi.

SCHEME OF EVALUATION:

CONTINOUS INTERNAL ASSESSMENT: 20 marks

Written Test : 20 marks
Duration of test : 1 hour
Third Component : Assignment / Quiz /Seminar / Project work, etc. (Any one only)

END SEMESTER EXAMINATION: 80 marks

QUESTION PAPER PATTERN:

Duration of Examination: 3 hrs

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HUMAN GEOGRAPHY

CODE: 24GE/CC/HG24 **CREDITS: 4**
L T P: 4 1 0
TOTAL TEACHING HOURS: 60

LEARNING OBJECTIVES:

1. Understand the basics concepts of human geography in context of population attributes economic, cultural, and trade activities.
2. To understand the impact of population attributes on the development of a region.

COURSE OUTCOMES:

1. Students will learn how human, physical, and environmental components of the world interact with economic processes such as globalization, trade.
2. Gain insight of the social, economic and cultural aspects of region.

Unit 1: Introduction to Human Geography: **(15hrs)**

1.1 Definition, nature, scope and approaches to the study of Human Geography.
1.2 Concepts in Human Geography (place, space and landscape).
1.3 Understanding of man nature relationship.
1.4 Determinism, possibilism and neo- determinism.
1.5 Fields and sub-fields in Human geography.

Unit 2: Population and Settlement: **(15hrs)**

2.1 Growth of population, distribution, density of the world.
2.2 Migration: types, causes, and consequences.
2.3 Theory and model of population growth: Malthus and demographic transition.
2.4 Origin, function, and classification of rural and urban settlement.

Unit 3: Socio-economic dimension: **(15hrs)**

3.1 Languages, religion and races- definition and world distribution.
3.2 Habitat and economy of selected communities (Eskimo, Bushmen).
3.3 Economic activities: concept and classification-primary, secondary and tertiary.

Unit 4: Geography and Development: **(15hrs)**

4.1 Concept of development and sustainable development.
4.2 Indicators and measures of development (economic, social and environmental).
4.3 Global pattern of development and HDI.

TEXT BOOKS:

1. Husain, Majid (2021). Human Geography. Rawat Publications. New Delhi.
2. Maurya, S. D. (2016). Cultural Geography. Sardha Pustak Bhawan. Allahabad.

BOOKS FOR REFERENCE:

1. Maurya, S. D. (2018). Human Geography. Pravalika Publications. Allahabad.
2. Patra, Punyatoya et al. (2020). Perspectives in Human Geography. Concept Publishing Company Ltd. New Delhi.
3. Rubenstein, James M. (2012). Contemporary Human Geography. Prentice Hall of India. New Delhi.
4. Saxena, H. M. (2018). Economic Geography. 2nd Edition. Rawat Publications. New Delhi.
5. Singh, L. R. (2018). Fundamentals of Human Geography. Sharda Pustak Bhawan. Allahabad

SCHEME OF EVALUATION:

CONTINOUS INTERNAL ASSESSMENT: 20 marks

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HUMAN GEOGRAPHY

CODE: 24GE/MC/HG24 **CREDITS: 4**
L T P: 4 0 0
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1. Husain, Majid (2021). Human Geography. Rawat Publications. New Delhi.
2. Maurya, S. D. (2016). Cultural Geography. Sardha Pustak Bhawan. Allahabad.

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1. Maurya, S. D. (2018). Human Geography. Pravalika Publications. Allahabad.
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3. Rubenstein, James M. (2012). Contemporary Human Geography. Prentice Hall of India. New Delhi.
4. Saxena, H. M. (2018). Economic Geography. 2nd Edition. Rawat Publications. New Delhi.
5. Singh, L. R. (2018). Fundamentals of Human Geography. Sharda Pustak Bhawan. Allahabad.

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CONTINOUS INTERNAL ASSESSMENT: 20 marks

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Third Component : Assignment / Quiz /Seminar / Project work, etc. (Any one only)

END SEMESTER EXAMINATION: 80 marks

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REMOTE SENSING

CODE: 24GE/SE/RS23 **CREDITS: 3**

L T P: 0 0 3

TOTAL HOURS: 90

LEARNING OBJECTIVES:

1. This course shall introduce the basic concepts of remote sensing.
2. This paper shall elucídate about aerial photography, its basic principles and types, satellite remote sensing.
3. This course shall provide detailed understanding related to interpretation and application of remote sensing.

COURSE OUTCOMES:

1. Appreciate the strength and application of remote sensing.
2. Map the resources, their location and availability.

Unit 1: Concept of Remote Sensing: **(30 hrs)**

1.1 Definition, concept and development of remote sensing.

1.2 EMR Interaction with atmosphere and Earth Surface

1.3 Aerial photography and satellite remote sensing.

Unit 2: Analysis and interpretation: **(30 hrs)**

2.1 Base map (Survey of India Toposheet).

2.2 Visual interpretation using aerial photograph: land use/landcover.

2.3 Identification of hydrological features.

Unit3: Visual Interpretation using Satellite Data: **(30 hrs)**

3.1 Forest monitoring.

3.2 Water resources.

3.3 Urban sprawl analysis (change detection).

A practical record has to be prepared based on above exercises.

TEXT BOOKS:

1. Campbell, J. B. (2007). Introduction to Remote Sensing. Guildford Press. New York.
2. Jensen, J. R. (2004). Introductory Digital Image Processing: A Remote Sensing Perspective. Prentice Hall Inc. New Jersey.

BOOKS FOR REFERENCE:

1. Jensen, J. R. (2007). Remote Sensing of the Environment: An Earth ResourcePerspective. Prentice-Hall Inc. New Jersey.
2. Joseph, G. (2005). Fundamentals of Remote Sensing. Universities Press (India). Delhi.
3. Kumar, Dilip, Singh, R. B. and Kaur, Ranjeet (2019). Spatial Information Technology for Sustainable Development Goals. Springer.
4. Lillisand, T. M., and Kiefer, P. W. (2007). Remote Sensing and ImageInterpretation. 6th Edition. John Wiley & Sons. New York.
5. Nag, P. and Kudra, M. (1998). Digital Remote Sensing. Concept Publishing House. New Delhi.
6. Rees, W. G. (2001). Physical Principles of Remote Sensing. Cambridge University Press.
7. Sarkar, A. (2015). Practical Geography. A Systematic Approach. Orient Black Swan Private Ltd. New Delhi.
8. Singh, R. B. and Murai, S. (1998). Space-informatics for Sustainable Development. Oxford and IBH Pub.

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