GONDWANA UNIVERSITY, GADCHIROLI

Structure & Detailed Syllabus

NEP-2020

B.A. Geography Degree

(Basic/Honours)

In Gondwana University, Gadchiroli

Proposed and Submitted by Board of Geography Studies

Effective from 2024 – 2025

COMPOSITION OF CURRICULUM DRAFT COMMITTEE for B.A. Geography Degree (Basic /Honours) Program

1	Dr. Rajendrakumar KashinathDange Professor& Head, N H College, Bramhapuri	Chairperson
2	Dr. Haridas Lanjewar Assistant Professor, JSPM College, Dhanora	Member
3	Dr. Pramod Wasake Assistant Professor, Shivaji College, Rajura	Member
4	Dr. Vanashri Lakhe Associate Professor, S P College, Chandrapur	Member
5	Dr. Avinash Kadam Professor & Head Ramanand Tirth University, Nanded, Maharashtra	Member
6	Dr. Yogeshwar Y Dudhpachare Professor& Head, Janata Mahavidyalaya, Chandrapur	Member
7	Dr. Kailash Nikhade, Associate Professor, R D College, Bhamragad	Member
8	Dr. Nagsen N. Meshram Professor, S B College, Aheri	Member
9	Dr. Vilas Kale Associate Professor, Dr. Babasaheb Ambedkar College, Chandrapur	Member
10	Dr.Vijay Gorde Assistant Professor, M G College, Armori	Member
11	Dr. Ravi R Randive Assistant Professor, G W College, Nagbhid	Member
12	Dr. Yogesh Patil Associate Professor, Mahila Mahavidyalaya, Gadchiroli	Member

Syllabus & Regulations Governing the NEP Framework

for the Four-Years (Eight Semesters) Bachelor of Arts Geography Programme

Credit Framework under Three/Four-Years UG Programmewith Multiple Entry and Multiple Exit options

---

The structure of the Three/Four-year bachelor's degree programme allows the opportunity to the students to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per their choices and the feasibility of exploring learning in different institutions.The minimum and maximum credit structure for different levels under the Three/Four -year UG Programmewith multiple entry and multiple exit optionsare as given below:

Levels	Qualification Title	Credit Requirements		Semester	Year
		Minimum	Maximum		
4.5	UG Certificate	40	44	2	1
5.0	UG Diploma	80	88	4	2
5.5	Three Year Bachelor's Degree	120	132	6	3
6.0	Bachelor's Degree Honours **Or** Bachelor's Degree- Honours with Research	160	176	8	4

(a) Credits offered per Semester will be a Minimum 20 and a Maximum 22. While minimum credits are mandatory as per National Credit Framework, the Universities can evolve the mechanism for providing Semester/ Level wise credit attainment flexibility within the broad framework. We have designed the framework having 18-20 credit per semester.

(b) With effect from Academic Year 2024-25, three years/four years Degree Program will be introduced. Thus, the Fourth year Honours/ Honours with Research program (Level 6.0) will begin with effect from Academic Year 2027-28.

(c) Under four-year UG Degree (Honours with Research), the students will work on a research project or dissertation of 12 credits in the fourth year in the respective Major Subject. The decision regarding the distribution of 12 credits in Semester VII and VIII of fourth year. We have distributed these 12 credits in Semester VII and Semester VIII (4 credits in semester VII & 8 credits in semester VIII)

(d) The fourth year of the four-year UG programme will not be granted to any such college as 'natural growth'. The affiliated colleges conducting 3-year UG degree programme will seek permission to commence fourth year UG programme as extension by following the prevailing

statutory procedures. However, Colleges already having permission and recognition for the PG degree programme along with UG degree programme in the same Major shall be automatically allowed to continue PG degree programme and conduct the fourth year of UG Honors Degree programme without undergoing any additional procedures. Similarly, the colleges with approved PG programme and Ph.D. Research Centre in the Gondwana University, shall be automatically allowed to continue PG Degree programme and start the fourth year of UG Honors with Research Degree programme without undergoing any additional procedures. For students of colleges running only three-year UG Degree Programme, the University shall evolve suitable mechanisms in due time for admission to fourth-year honours program in other Colleges.

(e) The NEP 2020 curriculum framework offers

i. The flexibility to move from one discipline of study to another;

ii. The opportunity for learners to choose the courses of their interest in all disciplines;

iii. The multiple entry and exit options with the award of UG certificate/ UG diploma/ or three-year degree depending upon the number of credits secured;

iv. The flexibility for learners to move from one institution to another to enable them to have multi and/or interdisciplinary learning;

v. The flexibility to switch to alternative modes of learning (offline, ODL, and Online learning, and hybrid modes of learning).

Credit Specifications:

As per NEP- 2020, the learner engaged time for **40 credits is 1200 hours.**

i. Theory Courses: A minimum of 15 hours of teaching per credit is required in a semester.

ii. Laboratory Course: A minimum of 30 hours in laboratory activities per credit is required in a semester.

iii. Studio activities: Studio activities involve the engagement of students in creative or artistic activities. Every student is engaged in performing a creative activity to obtain a specific outcome. Studio-based activities involve visual or aesthetic-focused experiential work. A minimum of 30 hours in studio activities per credit in a semester is required.

iv. Workshop-based activities: Courses involving workshop-based activities require the engagement of students in hands-on activities related to work/vocation or professional practice. Every student is engaged in performing a skill-based activity related to specific learning outcome(s). A minimum of 30 hours of workshop-based activities per credit in a semester is required.

v. Seminar/ Group Discussion: A minimum of 15 hours of participation in seminar/ Group Discussion activity per credit in a semester is required.

vi. Internship: Credits for internship shall be one credit per one week of internship (or 30 hours of engagement), subject to a maximum of six credits per
Semester. The internship shall be monitored jointly by the faculty and Industry/ Organisation Mentor.

vii. Field-based Learning/ Practices: These are the courses requiring students to participate in field-based learning/projects generally under the supervision of faculty. A minimum of 30 hours of learning activities per credit in a semester is required. viii. Community engagement and service: These are the courses requiring students to participate in field-based learning/projects generally under the supervision of faculty.
The curricular component of 'community engagement and service' will involve activities that would expose students to the socio-economic issues in society so that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems. 30 hours of contact time per credit in a semester along with 15 hours of activities such as preparation for community engagement and service, preparation of reports, etc., and independent reading and study. Thus, the total learner engaged time would be **180 hours for a 4-credit course.**

Examinations and Appraisals

Attendance: The course shall be treated as an independent unit for the purpose of attendance. **A student shall attend a minimum of 75% of the total instruction hours in a course including assignments and seminars in each semester.**There shall be no provision for condonation of shortage of attendance and a student who fails to secure 75% attendance in a course shall be required to repeat that semester.

Internal Assessment: Marks for internal assessment shall be awarded on the basis of Attendance, Test, Case Studies, excursion and Assignments / Seminars/ Group Discussions and other co-curricular activities. The internal assessment marks shall be notified on the department / college notice board for the information of the students and it shall be communicated to the Registrar (Evaluation) within 10 days before the commencement of the University examinations, and the Registrar (Evaluation) shall have access to the records of such internal assessment evaluations.
Board of Examiners (BOE): Board of examiners constituted by the University shall consist of a Chairman, internal and external members out of which at least one shall be from the Department / College offering the course and at least two external members from other universities. The board shall scrutinize the question papers and shall forward for the approval of university.

Results:A candidate should obtain a minimum of 40% marks in each of the papers in the University examination and 50% marks including internal assessment marks. A candidate should obtain a minimum of 50% marks in all Semesters.The candidates who have passed in all the semester examinations are eligible for the B.A. Degree Honours in Geography. If candidate choose second DSC from Humanities stream like Sociology, Political Science, History, Economics, etc. can be awarded as B.A. Degree Honours in Geography.

Carry Over: A candidate who fails in a lower semester examination may go to the higher semester, however, the result of the candidates who have passed the VIII semester examination but not passed the lower semester examinations shall be declared as NCL (not completed lower semester examinations). Such candidates shall be eligible for the degree only after completion of all the lower semester examinations.

Question Paper Pattern: (For All Semesters)

The Theory exam will be conducted for 80 Marks by University, it consists of 3 Parts namely short, medium and long answer questions. 20 Marks will be there on College Assessment based on curriculum.

University Assessment: 80 Marks (4 Credit)Internal Assessment: 20 Marks

Que No.	Nature of Question	No. of Questions	Allotted Marks	From which Unit	Marks
1	Long	1	16	I or II	16
2	Long	1	16	III or IV	16
3	Short	2	16	I or II	16
4	Short	2	16	III or IV	16
5	MCQs	8	16	All Units	16
Total Marks					**80**

University Assessment: 40 Marks (credit -2)Internal Assessment: 10 Marks

Que No.	Nature of Question	No. of Questions	Allotted Marks	From which Unit	Marks
1	Long	1	10	I or II	10
2	Long	1	10	III or IV	10
3	Short	2	10	I or II	10
4	Short	2	10	III or IV	10
Total Marks					**40**

College Internal Assessment: 20

Sr. No.	Particular	Marks
1	Class Attendance	5
2	Home Assignment	5
3	Seminar / Group Discussion	5
4	Excursion / Field Visit/ Group Project Activity	5
Total Marks		**20**

Model of Curriculum

Name of the Degree Program:	**B.A. (Basic / Honours) Degree in Geography**
Discipline Core:	**Geography**
Total Credits for the Program:	**142**
Starting year of implementation:	**2024-25**

Program Outcomes:

By the end of the program the students will be able to:
(Refer to literature on outcome-based education (OBE) for details on Program Outcomes)

PO1: Relating to Knowledge

By the end of the program the students will be able to:
1.1Give explanation of relevant terms and concepts of Geography.
1.2Give better explanation about relevant principles, theories and models in Geography.
1.3Acquire knowledge relating to man and environmental process and factors.

PO2: Understanding and applications

By the end of the program the students will be able to:
2.1Identify the importance of spatial and time scale.
2.2Know the complex and interactive nature of physical and human environments.
2.3Identify the importance and variance between places, environments and people.
2.4Comprehend how processes bring changes in systems, distributions and environments.

PO3: Students Skills

By the end of the program the students will be able to:
3.1Interpret a variety of types of Geographical data, sources and recognise their limitations.
3.2Communicate Geographical evidence, ideas and arguments.
3.3Use Geographical data to identify trends and patterns.
3.4Use diagrams, sketches and maps to demonstrate Geographical aspects.
3.5Demonstrate skill of analysis and synthesis of Geographical information.

PO4: Students' Evaluation

By the end of the program the students will be able to:
4.1Critically evaluate Geographical Principles, Theories and Models.
4.2Assess the effects of Geographical processes and change on physical and human environments.
4.3Assess how the viewpoints of different groups of people, potential conflicts of interest and other factors interact in the management of physical and human environments.
4.4Evaluate the relative success of failure of initiatives.

PO5: By the end of the program the students will be able to:

5.1 Understand the issues of climate and climate change.

5.2 Pros and cons of tourism and its potential.

5.3 Problems, issues and solutions on Population Explosion.

5.4 Physiographic structures and divisions of India and Maharashtra.

PO6: By the end of the program the students will be able to:

6.1 Uses of statistical methods and techniques to understand the Geographical Phenomena.

6.2 Understand development of Geographical thoughts in the world.

6.3 Understand agriculture issues, Problems and solutions in India.

6.4 Analyse the morphometric functions and their process.

PO7: By the end of the program the students will be able to:

7.1 Understand regionalisation, regional issues and regional planning.

7.2 Analyse Impact of Geographic factors on Flora and fauna, along with their distribution in the world.

7.3 Use the advanced Statistical Techniques, Understand the Geographic phenomena.

PO8: By the end of the program the students will be able to:

8.1 Understand the regional and National Important of rivers and their role in development.

8.2 How to harvest the water on their rooftop, design the new models of water harvesting.

8.3 Understand the weather reports, international symbols of weather reports, understand the weather phenomenon.

8.4 Conserve the local forest, their use for livelihood, wildlife tourism, forest for development and their need for industrialization, wildlife tourism potential in the region.

8.5 Maps and their making, skeleton of the maps, Projections and their types.

PO9: By the end of the program the students will be able to:

9.1 Understand the surveying by tape and Chain, Measure the area by Chain and make a map of the field.

9.2 To use the Plane table, Measure the area by Plain Table and make a map of field.

9.3 Understand the surveying by Dumpy Level, to make a longitudinal profile of the liner Geographical object. Carried out the Geographical survey of any undulating surface.

9.4 Understand the surveying by Prismatic Compass and make a map of field.

9.5 Can use computer and make a digital map of regions using the application like Google Earth, ESRI, Geo-Media etc.

PO10: By the end of the program the students will be able to:

10.1 Understand the Military and security issues in India and adjacent countries, relation of Physical Geography with military issues.

10.2 Social traditions; customs and its relation with local Geography.

10.3 Physiological Structure of the region and its relation with transport.

10.4 Settlements and their relation with the Physical structure, Impact of Physical Nature on Human settlements.

10.5 Cause and effects of Climate Change. Present Issues of Climate Change and its impact on economy, agriculture.

10.6 Resources in India, types of resources, need of conservation.

10.7 Understand the phenomenon of monsoon, Monsoon and agriculture in India.

10.8 Health Issues and Local Geography, Environmental Diseases, adaptation of human being in various areas of the world.

Aims & Objectives of B.A. Geography syllabus

- Know the significance of scale in studying Geography.
- Know the processes functioning at various scales within physical and human environments.
- Improve a sense of space, place and location.
- Develop consciousness of the relevance of Geography to understanding and solving contemporary environmental problems.
- Realisation of the main fundamentals of physical Geography and human Geography and the interconnectedness between them.
- Explain the causes and effects of change over space and time on physical and human environments.
- Develop a gratefulness of the nature, value, limitations and importance of different approach- es to analyse and explanation in Geography.
- Increase the knowledge of, and ability to use and apply, appropriate skills and techniques including fieldwork.
- Improve a logical approach in order to present a structured, coherent and evidence-based argument.
- Develop a concern for accuracy and objectivity in extracting, recording, processing, presenting, analysing and interpreting geographical data.

B.A. Geography Degree (Basic / Honours)

Technical Skills and possible jobs after each exit during and after the program

YEAR	OBJECTIVES	EXIT LEVEL	CREDITS	TECHNICAL SKILLS	POSSIBLE JOBS
I	Understanding and exploration	Certificate	36	Map Interpretation Geomorphic Analysis Climate Data Analysis & Interpretation	Field Surveyor Weather Data Analyst Watershed Manager
II	Focus and immersion	Diploma	68	Cartography Statistics Analysis	Field Surveyor Cartographer Weather data analysts Forest Conservators / Manager
III	Real Time Learning	Degree	102	Cartography GIS and Image Analysis Tourism Management	GIS Field Surveyor GIS Trainee Nature Conservation Officer Socio-Economic expert School Teacher
IV	Deeper Concentration	Degree with Honors	142	GIS & Image Analysis Resource Management Town Planning Tourism Management Water Conservator and Planner	Sustainability Consultant Tourism officer Transport planner Cartographer GIS Engineer Environmental consultant Geography Teacher Geography Researcher

CERTIFICATE

Department of Geography

Name of College……..

This is to certify that this practical record is the Original practical works of

Shri/ Kumari/ Smt. ……

Class…… Semester……. During the academic year.

He/she has attended/ not attained the field work/ Study tour prescribed by the Gondwana University Gadchiroli.

Signature of the teacher who taught the examinee.

1) ……

2) ……

Head of the Department

Gondwana University, Gadchiroli
NEP 2020 U. G. PROGRAMME (FROM SESSION 2024-25)
FACULT OF HUMANITIES
PROGRAMME NAME -B. A. SEMESTER-I SUBJECT: GEOGRAPHY

Sr. No.	Course Category	Subject Name	Total Credit	Teaching Scheme (Hrs)			Duration of Exa. (Hrs)	Examination Scheme					Total Marks
				TH	PR	Total Hrs		UA	CA	Total Marks	Mini. Passing		
											Th	PR	
1	Group Sub-I	Introduction to Geography Practical	02 02	02 -	- 04	02 04	02 04	40 30	10 20	50 50	20 -	- 25	**50** **50**
2	OE	Geography of tourism **OR** Physical Geography-I	02	02	-	02	02	40	10	50	20	-	**50**
3	VSC	Basics of Cartography Practical-I	02	-	04	04	04	30	20	50	-	25	**50**
4	SEC	Disaster management	02	02	-	02	02	40	10	50	20	-	**50**
5	VEC	EVS	02	-	04	04	-	-	50	50	-	25	**50**
6	AEC	Eng/Mar/Hin/Ben/Pali	02	02		02	-						**50**
7	IKS	Generic IKS	02	02	-	02	02	40	10	50	20		**50**
8	CC	NCC/NSS/Yoga/ Sports	02	-	04	04	-	-	50	50	-	25	**50**
	TOTAL		**22**	**18**	**16**	**26**		**320**	**130**	**500**	**120**	**100**	**550**

PROGRAMME NAME -B. A. SEMESTER-II SUBJECT: GEOGRAPHY

Sr. No.	Course Category	Subject Name	Total Credit	Teaching Scheme (Hrs)			Duration of Exa. (Hrs)	Examination Scheme					Total Marks
				TH	PR	Total Hrs		UA	CA	Total Marks	Mini. Passing		
											Th	PR	
1	Group Subject-I	Climatology Practical	02 02	02 -	- 04	02 04	02	40 30	10 20	50 50	20 -	- 25	**50** **50**
2	OE Grp-A	Geography of Health	02	02	-	02	02	40	10	50	20	-	**50**
	OE Grou-B	Physical Geography-II	02	02	-	02	02	40	10	50	20	-	**50**
3	VSC	Basics of Cartography Practical- II	02	-	04	04	04	30	20	50	-	25	**50**
4	SEC	WaterManagement	02	02	-	02	02	40	10	50	20	-	**50**
5	VEC	Indian Democracy	02	-	04	04	-	-	50	50	-	25	**50**
6	AEC	Eng/Mar/Hin/Ben/Pali	02	02		02	-	-	-	-	-	-	**50**
7	CC	NCC/NSS/Yoga/ Sports	02	-	04	04	-	-	50	50	-	25	**50**
	TOTAL		**22**	**18**	**16**	**26**		**270**	**190**	**550**	**140**	**100**	**550**

B.A. Semester I

Core Group Subject-I Introduction to Geography

University Exam: 40 Marks & Internal Assessment: 10 Marks

Course Outcomes:

After the completion of this course, students should be able to:

1. Define the field Geography and to explain the essential principles of it.
2. To outline the mechanism of physical dimension of the Earth
3. To understand the conceptual and dynamic aspects of landform development
4. Will understand the astronomical phenomena's

Course Objectives:

This course aims to:

1. To define the concepts in Geography
2. To introduce various concept to understand the movement of the earth
3. To understand the relation between man and nature
4. Will understand the modern concepts in Geography

Content of Theory Course: Introduction to Geography

Unit – I The nature of Geography

The Nature of Geography - Meaning, Definition, Scope, Approach, Objectives, Relevance and Development of Geography; Branches of Geography; Geography and other disciplines.

Unit – II The Physical Dimension in Geography

The Physical Dimension in Geography; The Universe; The Solar System; Earth as a Unique Planet; Phases of Moon; The Earth's Motion; Shape of the Earth; Latitudes; Longitudes, Time zones and time calculation.

Unit – III Man and Environment

Geography as a study of environment; Man-Environment relationship; Ecology and Ecosystem. Environmentalism determinism, possibilism, stop and go determinism.

Unit – IV Historical overviews of Geography

A brief historical overview of Geography as a discipline, recent trends in Geography With special reference to India. Imperatives for the future, Modern concepts in Geography. Career opportunities for geographers.

B. A. Semester I
Practical exam: 50 Marks (UA-30 and CA-20)

Content of Practical Course
Unit – I Understanding Cartography
Meaning Definition; Nature & Scope of Cartography. Globe & Maps, Essentials of Maps; History of Map-Making; Types & Uses of Maps.
Unit – II Scale
Scale; Definition, Types and construction. Conversion of Scale: Statement to R. F. & R. F. to Statement;
Unit – III Constructions of various map scales
A Simple Linear scale, B Comparative scale: Time and Distance C Diagonal scale
Unit – IV Statistical Methods
Statistical Method A Tabulation, Seriation and frequency distribution B Measure of central tendency: Mean, Median and Mode

Plan of Practical examinations

Sr. No.	Particulars	Marks
1.	Introduction to Cartography	5
2.	Conversion of Scale	5
3.	Construction of Scale	5
4	Statistical Method	10
5	Viva-voce, Practical Records and Punctuality	5

B.A. Semester I

OE-AGeography of Tourism

University Exam: 40 Marks & Internal Assessment: 10 Marks

Course Outcomes:
After the completion of this course, students should be able to: 1. Define the fieldin tourism of Geography. 2. To outline the mechanism tourism. 3. To understand the conceptual and dynamic aspects of Tourism Development in India 4. Will understand the astronomical phenomena's
Course Objectives: This course aims to: 1. To define the concepts of tourism 2. To introduce various concept to understand the Tourism Infrastructure 3. To understand the relation between man and nature 4. Will understand the modern concepts ofdemand and supply in tourism

Content of Theory Course: Geography of Tourism
Unit – I The nature and concept of tourism
Nature and scope of Geography of Tourism, Importance of Tourism, Geography and Tourism. Factors of Tourism, Development – Physical, Socio-cultural and Economic.
Unit- II: Infrastructure in Tourism
Classification of Tourism, Marketing in Tourism, Characteristics of Tourism Marketing, Functions of Tourism Marketing. Infrastructure and support services – Transportation, Tourism organization, Agencies and guide, Accommodation etc.
Unit- III: Impact of Tourism
Impact of Tourism – Tourism and Economic Development, Tourism and Social Changes, Tourism and Environment. Planning of Tourism – Process of Planning, Types of Tourism Planning, Problems of Tourism Planning.
Unit- IV: Significance of Tourism Industry
Tourism Development in India, role of Tourism in National Economy, Geographical and Historical Tourism in Vidarbha, Religious and Cultural Tourism in Vidarbha.

Referred Books

1. Kamra & Chand (2002): Basic of tourism, Theory operation and practice
2. Pran Nath Seth and Sushma Seth Bat An introduction to travel and tourism
3. Suddhendu Narayan Mishra Basis of Tourism Management

B.A. Semester I

OE: Physical Geography- I

University Exam: 40 Marks & Internal Assessment: 10 Marks

After completion of the course the students will. 1. Understand the basics of Physical Geography 2. Learn the concepts and theories of Origin of Earth. 3. Understand the Earth Movements.
Aim of the syllabus on water Harvesting are 1. To understand the basic concepts in Physical Geography 2. To learn about interior of the Earth. 3. To learn various process of weathering.

Content of Theory Course: Physical Geography- I
Unit – I: Introduction to Physical Geography
Meaning, scope, and components of physical Geography; Physical Geography and other disciplines; Geological Time Scale.
Unit – II: The Earth
Origin of the Earth; Interior of the Earth; Origin of continents and oceans; Earthquakes and volcanoes.
Unit – III: Earth Movements
Earth movements; Faults, folds, Continental Drift and Plate Tectonic Theories; Isostasy.
Unit – IV: Weathering Process
Weathering and its types, mass wasting, Minerals, Rocks and it's type.

References:

1. Billings, Marland P. (2016): *Structural Geology,* 3rd Edition, Pearson Education, India, Noida.
2. Holden, Joseph ed. (2017): *An Introduction to Physical Geography and the Environment*, Pearson Education Ltd., Harlow, UK.
3. Husain, Majid (2018): *Fundamentals of Physical Geography*, 5th Edition, Rawat Publications, Jaipur.
4. Khullar, D.R. (2019): *Physical Geography*, Kalyani Publishers, Ludhiana.
5. Lal, D.S. (2014): *Physical Geography*, Sharda Pustak Bhawan, Allahabad.
6. Siddhartha, K. (2017): *Physical Geography*, Kitab Mahal, Allahabad.
7. Singh, Savindra (2020): *Physical Geography*, Prayag Pustak Bhawan, Allahabad.
8. भुरुपशास्त्र आणि सागरविज्ञान : नागतोडे, शेख, दूधपचारे, विद्या प्रकाशन, नागपूर.
9. भुरुपशास्त्र: आर के डांगे, सर साहित्य केंद्र, नागपूर

B. A. Semester I
Practical exam: 50 Marks (UA-30 and CA-20)
VSC: Basics of Cartography (Practical I)

Content of Practical Course: Basics of Cartography-I
Unit – I Understanding Cartography
Meaning Definition; Nature & Scope of Cartography. Globe & Maps, Essentials of Maps; History of Map-Making; Types & Uses of Maps.
Unit – II Introduction to modern techniques
Introduction to modern techniques (on theoretical base): Remote sensing as a tool for data generation and mapping, GIS and Computer.Definition of remote sensing. Remote sensing platforms and scanners. Arial remote sensing and Arial photographs
Unit – III Introduction to GIS
Definition & History of GIS, Component of GIS, Installation of GIS application, Open-source applications on GIS, Raster and Vector data.
Unit – IV Thematic Maps
Creating Thematic Maps: Dot method, Choropleth Maps, Pi Diagrams, Histograms, Attributing the data table.

Plan of Practical examinations

Sr. No.	Particulars	Marks
1.	Understanding Cartography	5
2.	Introduction to modern techniques	5
3.	Introduction to GIS	5
4	Thematic Maps	10
5	Viva-voce, Practical Records and Punctuality	5

SUGGESTED READINGS:

1. Contemporary American Geography; Routlege New Jersey. 1992.
2. Dikshit R.D. Geographical Thought- A contextual History of Ideas. Prentice Hall of India Pvt. Ltd. 2000.
3. Dohrs. F.E. and Sommers, L.W. (sds.) Introduction to Geography, Thomas Y. Crowell Co. Chicago, 1959
4. Dange R.K.: Introduction to Geography, SIR SAHITYA KENDRA, NAGPUR-2015
5. Harvey. David: Explanation in Geography Edward-Amold, London, 1972
6. Holt-Jensen, A Geography: Its History and Concepts, Longmans, 1980
7. Husain, Majid: Evolution of Geographical Thought, Rawat Publications, Jaipur, 1984
8. James, P.E.: All Possible Worlds: A History of Geographical Ideas. Sachin Publication, Jaipur
9. Johnston, P.J. and Claval, P. (eds.): Geography Since the Second World War. Croom Helm. London/Bernes and Noble, N.J. 1984.
10. Jones, PA/: Fieldwork in Geography, Longmans, 1968.
11. Lownsburg. J.F. and Aldrich, F.T.: Introduction to Geographical Methods and Techniques, Charles Marrili, Columbus, 1979.
12. Matthews J.A. and Herbert D.T.; Geography: A very short introduction, oxford university press, New Yark, 2009.
13. Minshull, R: The changing Nature of Geography. Hutchinson University Library, London, 1970
14. Nagtode P. M. &Lanjewar H.D.: Nakashashtra, Pimplapure Publication Nagpur
15. Wooldridge S.W.: The Geographer as Scientist, Thomas Nelson and Sons Ltd. London.1956
16. **योगेशदूधपचारे,कर्नलविलियमलॅम्बटन, भारताचेत्रिकोणमितीयसर्वेक्षणआणिपृथ्वीचाआकार, समीक्षापब्लिकेशन, पंढरपूर, 2023.**
17. **प्राकृतिकभूविज्ञान, संजीवनीदाते**

B. A. Semester I

SEC: Disaster Management

University Exam: 40 Marks & Internal Assessment: 10 Marks(Credit:2)

After completion of the course the students will. (Course Outcome) 1. The students will learn about basic Principles Disaster Management 2. The students will know the types of Disaster 3. The students will know about policy, laws and rules of Disaster Management.
Aim of the syllabus on Disaster Management 1. To make aware to the students about various disaster and its mitigation 2. To make aware to the students about manmade and natural disaster 3. To make aware to the students about the vulnerability about the disaster and risk reduction methods.

Content of Theory Course: Disaster Management
Unit – I: Meaning and definition of Disaster
Meaning, Definition, concept, risk, vulnerability, and classification of disaster.
Unit – II: Methods of Disaster management.
Manmade and natural Disasters: - Causes, impact, distribution,
Unit – III: Types of Disaster
Management of flood, drought, landslide, hailstorm, Earthquake, Tsunami, and cyclone. Disaster with reference to India.
Unit – IV: Disaster Management.
Mitigation, response and preparedness of disaster, Disaster Management in India – Laws, NDMA and NIDM; Indigenous knowledge and community-based disaster management.

References:

1. Arulsamy, Dr S. and J. Jeyadevi (2016): Disaster Management, Neelkamal.
2. Government of India (2011): Disaster Management in India, Ministry of Home Affairs, New Delhi.
3. Kumar. P. (2021): Disaster Management, Oak Bridge Publications, New Delhi.
4. Pandey. Dr. Mrinalini (2014): Disaster Management, Wiley India, New Delhi.
5. Pandey, Rajendra Kumar (2020): Disaster Management in India, Sage Publications India Pvt. Ltd., New Delhi.
6. Srivastava, A.K. (2021): Text Book of Disaster Management, Scientific Publishers, New Delhi.

B. A. Semester II
Group Subject II: CLIMATOLOGY
University Exam: 40 Marks& College Assessment:10 Marks

Course Outcomes: **After the completion of this course, students should be able to:** 1. Understand the basic principles of climatology 2. Understand the formation of climate on any place of world. 3. Classify the types of climates in the world 4. Understand the causes of climate changes in the world.
Course Objectives: 1. To define the concept of weather and climate 2. To make enable to the students to understand the global energy budget. 3. To create responsible citizens about climate change phenomena 4. To make enable to the students to understand the atmospheric disturbance.
Content of Theory Course: CLIMATOLOGY
Unit – I: Introduction to Climatology
Meaning & Scope and significance of Climatology; Atmospheric composition and structure; Elements of Weather and Climate; Insolation: Determinants & Distribution; Global energy Budget.
Unit – II: Temperature
Temperature: Factors, Distribution and Processes of Heating & Cooling of the Atmosphere. Atmospheric pressure and wind; Vertical and Horizontal Distribution of pressure; Planetary, Periodic and local wind, Monsoon.
Unit – III: Atmospheric conditions
Atmospheric Moisture, Humidity, Evaporation and Condensation; Precipitation: Forms & Types; Rainfall; Air Masses and Fronts, Concepts, Classification and Properties.
Unit – IV: Atmospheric Disturbances
Atmospheric disturbances; Cyclones: Tropical & Temperate; Anticyclones, Thunderstorms and Tornadoes; Climatic Classification: Koppen & Thornthwaite; Role of climate in human life; Global Warming- General causes, Consequences and Measures of control.

Suggested Readings

1. Barry, R.G. and Carleton, M. (200 I): Synoptic and Dynamic Climatology, Routledge, London.
2. Chorley, R.J. (200 I): Atmosphere, Weather and Climate. Methuen, London.
3. Critchfield, H.J. (2002): General Climatology. Prentice-Hall of India, New Delhi
4. Finch, J. e. and Trewartha, G. T.: Elements of Weather and Climate. Prentice-Hall, London.
5. Kendrew, W.e. (1998): Climatology. Edward Arnold, London. 5th edition.
6. Lal, D.S.(l986): Climatology. Chaitanya Publications, Allahabad.
7. Dange R.K: Introduction to Climatology, SIR SAHITYA KENDRA, NAGPUR-2015
8. Singh, M.B. (1998): JalvayuAvam Samudra Vigyan. Tara Book Agency, Varanasi.

B. A. Semester II
Practical exam: 50 Marks (UA-30 and CA-20)

Content of Practical Course
Unit – I Climatic Maps & Diagrams
Preparation of climatic maps and diagrams – a) Preparation of Isopleths showing temperature, pressure and rainfall. b) Construction of Histogram, Hythergraph and Windrose Diagram.
Unit – II Indian Daily Weather Reports
Study of Indian daily Weather Maps: Showing summer, Rainy season and winter condition.
Unit – III Weather Instruments
Study of following weather instruments: a) Simple Thermometer, Maximum And minimum bulb thermometer b) Barometer c) Dry and Wet Bulb Thermometers d) Rain Gage and Anemometer
Unit – IV Field Visit
Students Visit the Nearest Weather Station and Prepare the Field Report

Plan of Practical examinations

Sr. No.	Particulars	Marks
1.	Unit – I: Climatic Maps & Diagrams	10
2.	Unit – II: Indian Daily Weather Reports	05
3.	Unit – III: Weather Instruments	05
4	Unit – IV: Field Visit	05
5	Viva-voce, Practical Records and Punctuality	05

B.A. Semester II

OE-Group-AGeography of Health

University Exam: 40 Marks & Internal Assessment: 10 Marks

Course Outcomes: **After the completion of this course, students should be able to:** 1. Understand the basic principles of Human Health and Geography. 2. Understand the Significance of Geography of Health. 3. Understand the Purpose of Balance Diet. 4. Understand the Significance of Nutrition in Food.
Course Objectives: 1. To define the Meaning and Definition in Geography of Health 2. The students to understand the importance ofHealth care System. 3. To create responsibility about Health Education. 4. To make enable to the students to understand the importance ofHealth Management.
Content of Theory Course: Environment Geography
Unit – I: Introduction to Human Health and Geography
Introduction to Human Health and Geography – Meaning and Definition in Geography of Health – Objectives – Nature, Scope of Geography of Health – Significance of Geography of Health – Approaches of Study of Geography of Health, Factors Influencing on Human Health.
Unit – II: Nutrition and Food
Nutrition and Food: Meaning of Nutrition and Food – Nutrition Elements of Food – Purpose of Balance Diet – Significance of Nutrition in Food; Epidemiology of Communicable. Disease; Meaning – Classification – Types Causes and Distribution – Prevention and Eradication Programmes in India.
Unit – III: Epidemiology of non-communicable disease
Epidemiology of non-communicable disease: Meaning – classification of disease (Congenital and Acquired Disease), Malnutrition: Types of Malnutrition – Classification of Malnutrition – Causes and Symptoms of Malnutrition – Effect of, Malnutrition, Distribution of malnutrition – Prevention and Eradication Programme in India.
Unit – IV: Health care System
Health care System; Meaning of Health care, different types of Health care system; Health care Planning & Management; Meaning and Objectives of Health care Planning, Health Education, and National Health Policy in India. Health Management, Health Organization. (WHO)

B.A. Semester II

OE-Group-B: Physical Geography- II

University Exam: 40 Marks & Internal Assessment: 10 Marks

After completion of the course the students will. (Course Outcome) 1. The students will learn about the work of Glaciers and Wind. 2. The students will have the knowledge of various ocean floors. 3. The students will know about the major climatic phenomenon like Al Nino, La Nina etc. 4. The students will know about the Major Phenomenon in Indian Ocean i.e., India Ocean Dipole
Aim of the syllabus on Fundamentals of Physical Geography 1. To make aware to the students about the Glaciers, their work and associate landforms 2. To know aware to the students about the winds and its work. 3. To make aware to the students about the sea waves and underground water.
Content of Theory Course: Physical Geography- II
Unit – I: Work of Glaciers and Wind
Glaciers -their type, landforms associated with the work of valley glaciers. landforms developed due to erosional and depositional work of wind.
Unit – II: Work of Underground water and sea waves
The work of underground water, karst topography. Work of sea waves in coastal regions -landforms developed due to erosional and depositional work of sea
Unit – III: Oceanography
Definition of oceanography. Surface configuration of ocean floor, continental shelf, continental slope, abyssal plain, mid -oceanic and oceanic ridges and trenchers.
Unit – IV: Circulation of oceanic waters
: Waves, tides and currents, Al Nino, LA Nina, Indian Ocean Dipole, Coral Reefs.

References:

1. The World Oceans -An Introduction to Oceanography, A6nikouchine, W.A.& Sternberg, R.W., Englewood Cleffs N.J. 1973

2.General Oceanography-An Grolds, S. Introduction, John Wliey& Sons New York, 1 980

3. Principals of Geography, Monkhouse, University of London press,'1980

4. Elements of Practical Geography, Singh R.L, Students, Friends, Allahabad

5. Physical Geography, Strahler A.N., John Wiley & Sons

6. A Text book of Geomorphology, Worcester P.G, Affiliated East West Press, New Delhi,1981.

B. A. Semester II
VSC: Basics of Cartography (Practical- II)
Practical exam: 50 Marks (UA-30 and CA-20)

Content of Practical Course
Unit – I Enlargement and reduction of map on Scale
Enlargement and reduction of Maps on scale, Methods for Enlargement and Reduction, Large scale map and small-scale map. Measurement of an area on map with the help grid method.
Unit – II Chain Survey
Surveying – Meaning Survey by chain, Preparation of field book and plotting from the field book. Open and Close traverse.
Unit – III Surveying
Principle of Triangulation Survey,(Making at least 3 maps with open traverse Method along with 3 maps with close traverse method.)
Unit – IV Project Report
The Project Report based on Any one fields based case studies among following Environment Problem 1. Air and Noise Pollution 2. Water Pollution-Ponds, River, Lake and Sea 3. Solid waste Management 4. Land and Soil Pollution 5. Rain Water Harvesting

Plan of Practical examinations

Sr. No.	Particulars	Marks
1.	Unit – I: Enlargement and reduction of map onScale	05
2.	Unit – II: Survey by chain	05
3.	Unit – III:Surveying Continued…	05
4	Unit – IV: Project Report	10
5	Viva-voce, Practical Records and Punctuality	05

B. A. Semester II
SEC: Water Management.
University Exam: 40 Marks, Internal Assessment: 10 Marks

After completion of the course the students will.

1. Understand the basics of water Management and its need
1. Learn the relationship between rainwater harvesting and groundwater recharge
2. Assess the current status of the water account in any village or city area.
3. Understand the importance of water Managementfor water supply.
4. Assess and implement the rainwater or watershed management programmes in their houses and lands.

Aim of the syllabus on water Management are

1 To understand the concept of Water Management
2 To know the characteristics of watershed.
3 To learn various Water Management Methods.
4 To introduce the concepts of watershed modelling and rainwater harvesting.

Content of Theory Course: Water Management

Unit – I: Definition and scope of water resources

Definition and scope of water resources, Distribution of World water resources, Water Resources of India Hydrological Cycle and Groundwater.

Unit – II: Demand and Use of Water

Demand and Use of Water, Irrigation Methods, Salinity Alkalinity, Overexpliotation of Groundwater and Arsenic Problem, Demand and Water supply in Industries, Water Pollution.

Unit – III: Water conservation

Water Conservation, Flood Management, Drought and Dry Farming, Water harvesting: Need for artificial recharge and rainwater harvesting, Catchment area, Drainage basin and Watershed Management.

Unit – IV: Water Management

Traditional and Morden Methods of water conservation in India, Integrated Basin Planning, River linking Project, Recycling of domestic water, Water management by Remote sensing Technology, Environmental Disasters and Water crisis.

References:

1. Singh Gurmel, C. Venkataraman, G. Sastry and B.P. Joshi. 1996. Manual of Soil and Water Conservation Practices. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
2. Michael, A.M. and T.P. Ojha. 2003. Principles of Agricultural Engineering. Volume II. 4th Edition, Jain Brothers, New Delhi.
3. Murthy, V.V.N. 2002. Land and Water Management Engineering. 4th Edition, Kalyani Publishers, New Delhi.
4. Schwab, G.O., D.D. Fangmeier, W.J. Elliot, R.K. Frevert. 1993. Soil and Water Conservation Engineering.4th Edition, John Wiley and Sons Inc. New York.
5. Suresh, R. 2014. Soil and Water Conservation Engineering. Standard Publisher Distributors, New Delhi.

6. OP Gupta, Element of Land/Soil Pollution, Khana Publishing House.Samra, J.S., V.N. Sharda and A.K. Sikka. 2002.
7. Water Harvesting and Recycling:Indian Experiences. CSWCR&TI, Dehradun, Allied Printers, Dehradun.Theib Y. Oweis, Dieter Prinz and Ahmed Y. Hachum. 2012.
8. Rainwater Harvesting forAgriculture in the Dry Areas. CRC Press, Taylor and Francis Group, London.Studer Rima Mekdaschi and Hanspeter Liniger. 2013.
9. Water Harvesting – Guidelines to GoodPractice. Centre for Development and Environment, University of Bern, Switzerland.