



Progressive Education Society's

Modern College of Arts, Science and Commerce

(Autonomous)

Ganeshkhind, Pune

www.moderncollegegk.org

S.Y. B. A. Geography Syllabus

Revised NEP I Autonomous Program

(Semester & Choice Based Credit System)

(To be implemented from the Academic Year 2024-25)

Title of the Course: Bachelor of Arts (B.A.) – Geography

Preamble for the syllabus:

Modern College of Arts, Science and Commerce, Ganeshkhind Pune (Autonomous) has decided to change the syllabi of undergraduate courses from June 2022. Considering the dynamic and interdisciplinary nature of the subject, Board of Studies in Geography at Modern College Ganeshkhind has prepared the syllabus of FYBA Geography. UGC model curriculum is followed while framing the syllabus.

Preamble: Students of FYBA will be learning about Physical Geography in general and Geomorphology in specific. The intension is to make students understand the basic concepts in Geomorphology like earth's origin and shape, formation of continents and oceans, theories related to origin of continents and oceans, interior of the earth, erosion and weathering, landforms created by river and sea waves etc.

In Human Geography, students understand the needs of human societies, their formations, development, culture, economy, politics, occupations, trade and commerce etc. within the context of their environment. The interrelationships between societies are studied from local to global and especial study of population, settlements, agriculture etc.

Objectives:

1. To make students understand the basic concepts in Geomorphology.
2. To make students understand theory of continental drift, interior of the earth, rocks etc.
3. To make students analyze the various landforms created by denudational agents like river and sea waves.

Course Outcome:

Upon successful completion of this course, students will be able to

1. Understand the basic concepts in Geomorphology.
2. Remember theory of continental drift, interior structure of the earth, rocks etc.
3. Evaluate landforms created by denudational agents like river and sea waves.

Equivalence of Previous Syllabus along with new syllabus

Sr No		Old Course	New Course
1	Paper 1	Physical Geography	Elements of Geomorphology
2	Paper 2	Human Geography	Human Geography

Course Structure
F.Y.B.A. GEOGRAPHY

Semester	Paper code	Paper	Name of the Course	Credits
1	24GEO11101	CC 1	Elements of Geomorphology (Physical Geography)	3
2	24GEO12101	CC 2	Human Geography	3

F.Y.B.C.S. GEOGRAPHY

Semester	Paper code	Paper	Name of the Course	Credits
2	24GEO12303	OE 1	Health Geography	2

S.Y.B.A. GEOGRAPHY

Semester	Paper code	Paper	Name of the Course	Credits
3	GEO23101	DSC 5	Practical Geography - I	4
	GEO23102	DSC 6	Oceanography	2
	GEO23103	IKS 1	Geography of Ancient India	2
	GEO23201	Minor 2	Population Geography (No Grant)	3
	GEO23402	VSEC 3	Computer Geography	2
	GEO23601	CC	FP 1	2

S.Y.B.Sc. (Gen) GEOGRAPHY

Semester	Paper code	Paper	Name of the Course	Credits
3	24GEO23301	OE 1	Everyday Geography	2

Semester	Paper code	Paper	Name of the Course	Credits
4	GEO24101	DSC 7	Climatology	4
	GEO24102	DSC 8	Practical Geography - II	4
	GEO24201	Minor 3	Economic Geography (No Grant)	3
	GEO24401	VSEC 4	Urban Planning	2
	GEO24601	CC	CEP 1	2

SYBBA(CA) GEOGRAPHY

Semester	Paper code	Paper	Name of the Course	Credits
4	24GEO24301	OE 1	Everyday Geography	2

Department of Geography
SYBA Semester - 3
Major DSC 5 Practical Geography – I
(Map Scales and Map Projections)
Subject Code GEO23101

Total Lectures: 60

Credit:4

Unit	Topic	No of lectures
1	a) Introduction to Maps 1. Definition of Maps 2. History of Maps 3. Elements of Map 4. Classification of Maps: a. On the basis of scale: i) Small scale ii) Large Scale b. On the basis of function: i) Physical ii) Cultural 5. Use of maps	08
II	b) Map Scale 1. definition of map scale 2. types of map scale a. verbal scale b. numerical scale c. graphical scale 3. conversion of Scale (British and Metric system) a. verbal scale to representative fraction b. representative fraction into verbal scale 4. construction of simple graphical scale (at least two examples from each)	18
III	c) Basics of Map Projection 1. Basic concepts of projection: latitude, longitude, parallel of latitude, meridian of longitude, prime meridian, equator, graticule, direction, shape of the earth, geoid, spheroid 2. Definition and types of map projection 3. Calculation of time based on meridian and GMT (Calculation of minimum four examples)	12

IV	<p>d) Construction of Map Projection with properties and uses (At least two examples from each projection)</p> <ol style="list-style-type: none"> 1. Zenithal Projection <ol style="list-style-type: none"> a. Zenithal Polar Gnomonic Projection 2. Conical Projection <ol style="list-style-type: none"> a. Conical projection with one standard parallel/ Simple conical projection 3. Cylindrical Projection <ol style="list-style-type: none"> a. Cylindrical equal area projection 4. Mercator projection 	22
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Reference Books:

- Sharma J.P. (2010) Prayogic Bhugol Rastogi Publishers, Meerut
- Singh R.L. and Singh R.P. B. (1999) Elements of Practical Geography, Kalyani Publications, Allahabad
- Slocum T.A. (2008) Thematic Cartography and Geo Visualization (3rd Edition) Prentice Hall
- Tyner J.A. (2010) Principles of Map Design, The Guilford Press
- Sarkar A. (2015) Practical Geography A Systematic Approach, Orient Black Swan Private Ltd, New Delhi
- Ahirrao Y. Karanjkehele E.K. (2002) Practical Geography, Sudarshan Publication, Nashik
- Saptarshi P.G. and Jog S.R. Statistical Methods.

S.Y. B.A. (Geography)
Semester: 3
Subject Code GEO23102: Oceanography (Major DSC-6)

Credits: 2

No. of Lectures: 30

Objectives:

1. To introduce the students to the basic principles and concepts in Oceanography.
2. To acquaint the students with the applications of Oceanography in different areas and environment.
3. To make the students aware of the Planet Earth and thereby to enrich the student's life.

Sr. No.	Topic	Sub-Topic	No. Of Lectures
1	Introduction to ocean and submarine relief	a. definition, nature and scope. b. importance of the study of oceanography in modern times.	6
2	Ocean Floor Topography	a. continental shelf. b. continental slope. c. continental margin. d. continental rise. e. submarine canyons. f. mid ocean ridges. g. trenches. h. abyssal plains.	8
3	Properties of Ocean Water	a. Properties of ocean water- temperature, density. b. Salinity- meaning and causes. c. Salinity of oceans, seas, and lakes with examples.	8
4	Movements of Ocean Water	a. waves- characteristics of sea waves, wave refraction, Tsunamis. b. ocean currents- meaning, causes, types. c. effects of ocean currents. d. tides- meaning, causes, types.	8

Reference:

1. "Oceanography: An Introduction to the Marine Environment" by Tom S. Garrison
2. "Principles of Physical Oceanography" by John A. Knauss
3. "Chemical Oceanography and the Marine Carbon Cycle" by Steven Emerson and John Hedges
4. "Introduction to Marine Geology and Geophysics" by David N. T. Pugh and John A. G. Cooper
5. "Indian Ocean Biogeochemical Processes and Ecological Variability" edited by Jerry D. Wiggert et al.

6. "Coastal Processes with Engineering Applications" by Robert G. Dean and Robert A. Dalrymple
7. "Marine Pollution: What Everyone Needs to Know" by Judith S. Weis

Department of Geography
SYBA Semester – 3 Major IKS - 1
Subject Code GEO23103: Geography of Ancient India

Total Lectures: 30

Credit:2

Objectives: -

1. To introduce students to the ancient India's Geographical Knowledge.
2. To aware students about the rich India's Knowledge system.
3. To know the contribution of Indian Scholars in the world Geography.

Unit No.	Topic (Chapter Name)	Sub Topics (Learning Points)	Teaching Hours
1	Introduction to the Geography of Ancient India	a) introduction, definition, nature and scope b) main aspects of geographical knowledge in ancient India c) evolution of geographical knowledge d) importance of ancient Indian geographical knowledge	12
2	Indian Contributors in Geography of Ancient India	a) Varahmihira b) Brahmagupta c) Aryabhata d) Bhaskaracharya e) Bhattila f) Utpala g) Vijaynandi	9
3	Bharatiya Civilization and Development of Knowledge System	a) Indus valley civilization b) panchang, silk route c) extend of Bharatvarsh	9

References:

- D.P. Agarwal and S.P. Agarwal (1981): Geography of Ancient India: A gazetteer of the Ancient Indian World.
- Bimala Churn Law (1937): Historical Geography of Ancient India
- A.S. Gaur (1987): Geography of India in Ancient Period
- Poonam Dalal Dahiya (2018): Geography of Ancient India

Department of Geography
SYBA Semester - 3
Minor - 1: Population Geography
Subject Code GEO23201

Total Lectures: 45

Credits: 3

Objectives: -

1. To introduce students to the problems of Population growth in India and aware about future.
2. To understand different theories and models of Population Geography.
3. To acquaint students with the different concepts of Population.

Unit No.	Topic	Sub Topics (Learning Points)	Teaching Hours
1	Introduction to Population Geography	a) definition, nature and scope of Population Geography b) approaches to the study of Population Geography c) relationship between Population Geography and other social sciences d) importance of Population Geography	9
2	Concept, Theories and Models of Population Geography	a) concepts of population – over population, optimum population and under population b) Malthusian theory of population c) Karl Marx theory of population d) Demographic Transition Model	12
3	Population Growth and Demographic Attributes	a) factors affecting the distribution of world population b) fertility and mortality – concept and measurement c) migration – concepts, causes and types d) population growth and today's world	12
4	Problems of Population and Population Policies	a) population growth and population problems in India b) India's population policies c) population growth and future of India d) human development index (HDI) and India	12

References:

- Population Geography (2012): R.C. Chandna
- Population Geography: A Concise Introduction (2014): R.R. Singh and G.Singh
- Loksankhya Bhugol: Musmade, More, Muluk and Kasar, Nirali Publication
- Population Geography: S.D. Maurya
- Population Geography: Debjani Roy
- Geography of Population: India Population Patterns: R.C. Chandna

SYBA Geography
Semester: 3 VSEC 3 (Major)
Subject Code GEO23401: Computer Geography

Credit: 02

No. of Lectures: 30

Objectives:

1. To understand the basic principles, concepts and application of Geographic Information Systems.
2. To learn spatial analysis techniques and their practical implementation in different fields like environmental science, urban planning, transportation, disaster mgmt. etc.
3. To gain proficiency in remote sensing technologies and their applications.
4. To develop skills in geospatial data acquisition, management, and visualization.

Sr. No.	Topics	Sub-Topics	No. of Lectures
1.	Introduction to Computer Geography	a) definition and scope of Computer Geography b) history of computer geography c) importance of computer geography in modern world d) digital cartography	5
2.	GIS	a) basic concepts of GIS b) components of GIS: hardware, software, data, and people c) data types and data models in GIS d) introduction to GIS software and tools e) advantages and application of GIS	10
3.	Basics of Computer Software- Word, Excel, PowerPoint	a) basics of computer. b) MS Word, MS Excel, MS Power-point – geographical data analysis c) data representation in word, excel & power-point.	15

Reference:

1. "Geographic Information System and Remote Sensing" by C.P. Lo and V. Suresh Babu
2. "Introduction to GIS: Principles and Applications" by Bhanu Rekha and A. Vijaya Kumari
3. "Principles of Remote Sensing" by S.K. Pal and M. Muthuchelian
4. "Urban Planning and GIS" by S.P. Mukherjee and R. Narayanasamy
5. "Spatial Data Analysis: An Introduction for GIS Users" by P. Senthilkumar and S. Chithra Devi
6. "Geospatial Techniques in Civil Engineering" by P. Raghavendra Rao and B. S. Chandrashekar

7. "Environmental GIS: Applications in Environmental Management" by P. Krishna Murthy and A. R. Rao
8. Environmental Geography: Savindra Singh Prayag Pushak Bhawan, Allahabad

SYBA SEMESTER 4 DSC 7
Subject Code GEO24101: CLIMATOLOGY

Total Lectures: 60

Total Credits: 4

Sr. No	Topic	Sub Topic	Teaching Hours
1	Introduction to Climatology	a) meaning, weather and climate b) meaning, climatology and meteorology c) origin, composition and structure of atmosphere	10
2	Temperature	a) distribution of temperature b) factors influencing horizontal distribution of temperature. c) inversion of temperature	14
3	Atmospheric Pressure and Wind	a) measurement of atmospheric pressure b) pressure belts c) types of winds 1. Planetary winds 2. Seasonal Winds • Origin of Monsoon winds • Onset and Withdrawal of Monsoon winds 3. Local Winds	12
4	Humidity and Precipitation	a) concept and types of humidity b) concept and forms of condensation c) precipitation and types of rainfall	12
5	Global Issues	definition, causes and consequences of a) global warming b) ozone layer depletion c) climate change	12

References:

1. Climatology (2000): D.S. Lal Sharda Pushtak Bhagwan, Allahabad
2. Physical Geography (1998) Savindra Singh, Prayag Pushtak Bhawan, Allahabad
3. Climatology: Ahirrao Y., Alizad S Nirali Prakashan
4. Elements of Physical Geography (2002) Mrs. P.N. Padey

SYBA SEMESTER 4 DSC 8

Subject Code GEO24102: Practical Geography – II (Cartographic Techniques, Surveying and Field Excursion)

Total Lectures: 60

Total Credits: 4

Sr. No	Topic	Sub Topic	Teaching Hours
1	Introduction to Cartography	a) definition and history of Cartography b) development of Cartography 1. Traditional 2. Modern c) Uses of Cartography	10
2	Cartographic Techniques	a) Techniques of representation of data (Uses and Limitations) 1. Simple Line Graph 2. Simple Bar Graph 3. Pie Diagram 4. Choropleth Maps 5. Isopleth Maps 6. Flow Diagram At least 1 example of each – manually and using computer)	20
3	Surveying	a) definition of surveying b) types of north direction (true, magnetic and grid north) c) types of surveying 1. Plane Table Survey (Radiation and Intersection Methods) 2. Prismatic Compass Survey 3. GPS Survey and plotting 4. Demonstration of Dumpy Level Survey and its calculations 5. Demonstration of Total Station 6. Introduction of Drone Survey d) Measurement of Land 1. Measurement of Survey field 2. Examples on measurement of area (Circle, Square, Rectangle, Triangle) 3. Conversion of area (hector into acre, Square km into Square	20

		meter, Square meter to Square feet)	
4	Field Excursion and Report Writing	a) Field Excursion/Village/City survey study tour to places of geographical interest anywhere in the country or socio-economic survey of village/city report writing	10

References:

1. Singh R.L. and Singh R.P.B. (1999) Elements of Practical Geography, kalyan Publishers.
2. Sarkar A. (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd, New Delhi
3. Singh R.L. and Dutta P.K. (2012) Prayogatma Bhugol, Central Book Depot, Allahabad
4. Ahirrao Y., Karanjkehele E.K. (2002) Practical Geography, Sudarshan Publication, Nashik
5. Saptarshi P. and Jog S.R. Statistical Methods
6. Karlekar S.N. (2008) Statistical Methods, Diamond Publication, Pune
7. Kanetkar T.P. Kulkarni S.V. (1986) Surveying and Leveling, Pune Vidyarthi Gruha Publication Pune
8. Kumbhare A. Practical Geography

Syllabus SYBA (NEP Autonomous)

SYBA SEMESTER 4 Minor 2

Subject Code GEO24201: Economic Geography

Total Lectures: 45

Credits: 3

Sr. No	Topic	Lecture
I	a) Introduction 1. definition, nature, and scope of Economic Geography 2. need and significance of Economic Geography 3. Economic Geography and its relationship with social sciences 4. approaches of the study of Economic Geography	9
II	b) Economic Activities 1. Introduction and concept of economic activity with problems and prospects 2. primary activities 3. secondary activities 4. tertiary activities	12
III	c) Natural Resources 1. concept of natural resources 2. classification of natural resources 3. renewable and non-renewable resources a. mineral resources- iron ore and manganese b. energy resources- coal, mineral oil, natural gas, hydroelectricity, solar energy, wind energy, geothermal energy, nuclear energy. 4. conservation of resources	12
IV	d) Agriculture 1. introduction to agriculture 2. role of agriculture in Indian economy 3. factors influencing agriculture in India. a. physical b. socio-economic c. political and cultural 4. comparative studies of Indian Agro products with other countries 5. Agro –tourism	12

Reference Books :

1. Gautam A., 2010, Advance Economic Geography, Sharda Pustak Bhavan, Allahabad
2. Chauhan R. N., 2007, Basic Principles of Economic Geography, ABD Publishers, Jaipur

3. Padey P. N., Economic Geography, Nirali Publication, Pune
4. Sadhukhan S. K., 1994, Economic Geography An Appraisal of Resources, S Chand & Company Ltd, New Delhi
5. Roy P., Mukherjee S., 1993, Economic Geography: Resource Appraisal of resources- New Central Book Agency, Calcutta
6. Mannur H. G., 2008, International Economics, Vikas Publishing House PvtLtd, Noida
7. Siddharth K., 2003, Economic Geography, Theories, Processes & Patterns, Kisalaya Publications Pvt, Ltd, Noida
8. Husain M., 2008, Geography of India, Tata McGraw Hill, New Delhi
9. Bhat L. S., 1973, Regional Planning in India, Statistical Publishing Society, Kolkata
10. Desai V, 1991, Fundamentals of Rural Development, Rawat Publications, New Delhi
11. Paranjape, Gupte, Karmarkar, 1974, Economic & Commercial Geography, Nirali Publication, Pune.
12. More J. C., 2014, Geography & Agriculture For MPSC Examination, Atharv Publication, Pune
13. Pagar S.D., Thorat A. M., More J. C., 2015, Agriculture Geography, Atharv Publication, Pune.
14. Sanjay Patil, Pacharane, Suryavanshi, Chaudhari, 2013, Economic Geography, Atharv Publication, Pune.

SYBA (Geography)
Semester: 4 VSEC 4
Subject Code GEO24401: Urban Planning

Credit:02

No. Of Lectures: 30

Objectives:

1. Understand the historical development of urban planning and its theoretical foundations.
2. Analyze the social, economic, environmental, and political factors shaping urban environments.
3. Evaluate the role of urban planning in addressing contemporary urban challenges, such as transportation, housing, sustainability, and equity.
4. Apply planning principles and techniques to real-world case studies and scenarios.
5. Develop effective communication skills for presenting and defending planning proposals.

Topic No.	Topics	Sub-Topics	No. of Lectures
1	Introduction to Urban Planning	a) concept and nature of planning, b) importance and types of planning c) meaning and definition of urban planning. d) relation to other disciplines	6
2	Urbanization	a) meaning of Urban settlement and urbanization. b) growth of Urban population c) patterns of urban development d) factors influencing urban form and structure	8
3	Urban issues	a) price of land b) scarcity of housing and growth of slums c) water scarcity d) urban transport problem e) urban Environmental pollution f) urban floods, health, and hygiene	8
4	Urban Plan	a) land use planning b) town planning c) transportation planning d) sustainable planning	

Reference:

1. "Urbanization in India: Challenges, Opportunities and the Way Forward" by Isher Judge Ahluwalia
2. "Urban Geography" by S.C. Mishra
3. "Indian Cities: Ecological Perspectives" edited by A. Ravindra and K.C. Misra
4. "Urbanization in India: An Overview of Economic, Social and Physical Planning" by N. S. Siddharthan and R. Gnanasekaran
5. "Urbanization, Urban Development, and Metropolitan Cities in India" edited by Manish K.

Department of Geography

S.Y.B.BA (CA) (Semester-4)

Open Elective (O.E.1) GEO24301 Everyday Geography

Credits: 2

Lectures: 30

Marks: 50

Sr. No	Topic	Sub Topics	Teaching Hours
1	Introduction	a) Definition and scope of Everyday Geography b) Importance of spatial thinking in everyday life c) Geographical thinking from Astronomy to Everyday Geography. d) World Map- Continents, Oceans, Countries and Seas. <i>Exercise: Mark few countries and seas in world map.</i>	6
2	Basic Concepts of the Earth	a) Basic concepts of the earth. b) Latitudes, Longitudes, Direction, Types of North. c) Projections, Time, Date, <i>Field Observation: Time and Direction of Sunrise, sunset, Find Directions, Local Time & Standard Time.</i>	6
3	Climate & Human Environment	a) Concept of Weather & Climate. b) Natural Regions, Insolation, Factors affecting Temperature. c) Structure & Composition of Atmosphere d) Impact of Climate on Human livelihood. <i>Field Observation: Note seasonal temperature of your place.</i>	6
4	Pollution and its Impacts.	a) Meaning and Definition of Pollution. b) Causes, Effects and Remedies on- Air pollution, Land pollution, Water pollution, Noise pollution & Light pollution, Impact of pollution on daily life & environment. <i>Case Studies of each pollution.</i>	6
5	Population & Environment	a) Population Distribution & Growth in the world. b) Factors affecting on Birth rates & Death rates c) Population Migration- Pull & Push factors. d) India- Sex Ratio, Literacy, Life expectancy, e) Population Explosion and Family Planning Program. f) Impact of Population in Environment. <i>Case studies: Comparative study of Population characteristics of India, Britain, USA & Brazil</i>	6

References:

- Physical Geography: Savindra Singh Prayag Pushak Bhawan, Allahabad
- Morphology and Landscape: Ahirrao, Alizad, Dhapte Nirali Prakashan, Pune
- Elements of Physical Geography: Mrs. P.N.Padey Nirali Prakashan, Pune
- Elements of Geomorphology: Yogesh Pawar and Nikhil Pawar Nirali Prakashan, Pune

- Climatology: D.S. Lal Sharda Pushak Bhawan, Allahabad