

SOLAPUR UNIVERSITY, SOLAPUR



NAAC Accredited-2015
'B' Grade (CGPA 2.62)

Faculty of Science
CBCS Pattern Syllabus
B.Sc.II (Sem-III&IV)
Geography
With effect from June-2017

B.Sc.II (Sem-III&IV)-Geography
CBCS Pattern Syllabus
w.e.f. June-2017

Subject-Geography (Optional)

Class	Code No.	Course No.	Name of the Course	CGPA Marks		Total Marks	Credit
				External	Internal		
B.Sc.II Seme. III	SG.2	SOG-201-S-III	(Paper V) Biogeography-1	70	30	100	3
			(Paper VI) Soil Science	70	30	100	3
B.Sc.II Seme. IV	SG.2	SOG-201-S-IV	(Paper-VII) Biogeography-2	70	30	100	3
			(Paper VIII) Agriculture Geography	70	30	100	3
	Practical SG.2	SOG-201-S-IV	Practical-II Remote Sensing & Aerial Photographs, Weather Reports, Statistical Methods and Computer	70	30	100	4
	Practical SG.2	SOG-201-S-IV	Practical-III Map Work, Surveying & Study Tour or Project Report	70	30	100	4

**B.Sc.II (Sem-III&IV)-Geography
CBCS Pattern Syllabus
w.e.f. June-2017**

Semester-III

Paper-V& VI Optional Geography

Paper Title: BIOGEOGRAPHY AND SOIL SCIENCE

Code No:-SG.2

Total Marks:-100

Course No:-SOG-201-S-3

Lecture per week:-6

No.ofCredit-03

Objectives–

- 1.To introduce the students to the basic concepts in Biogeography, Sustainable them in understand the Biogeographical principles through an interdisciplinary approach.
- 2.To acquaint the students to the spatial relationship which exists between man and nature.
- 3.To make the students aware of need of conservation of nature.
- 4.. To acquaint the students with the study of soil, soil elements and soil types.
- 5.To make students aware of soil degradation and soil conservation and its management.

Paper No V. BIOGEOGRAPHY -I

Unit No	Name of the Topic	Sub Topics	Total Lectures
1	Introduction to Biogeography	1.Definitionandmeaning 2.NatureandScopeof Biogeography 3.Branches of Biogeography 4. Importance of Biogeography	10
2	Factors Influencing the Biosphere	1.Geographical-Physiography,Soil, Climate,Vegetation and Water 2.Anthropogenic	10
3	Laws and Cycle of Energy	1.Laws of energy exchange 2.Foodchain,foodweb and Ecological Succession 3.Biogeochemicalcycles -N ₂ ,H ₂ O,C.and P.	10

4	Ecosystem	1. Concept of Ecosystem 2. Ecological Pyramid and Biotic Energy 3. Major Ecosystem of the World- i) Tropical ii) Subtropical (Temperate) iii) Polar iv) Aquatic	05
5	Biodiversity	1. Concept of Biodiversity and its Importance 2. Concept of Conservation 3. Hot-Spot of Biodiversity and India as a Mega diversity region 4. Threats to biodiversity- Natural and Manmade	10

Paper No VI SOIL SCIENCE -

100 Marks

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	Introduction and Soil characters	i) Definition of Soil ii) Soil as a resource iii) Water holding capacity iv) Field capacity v) Wilting point	10
2	Factors of soil formation	i) Topography ii) Climate iii) Biotic iv) Parent material v) Time	10
3	Classification of Soil	A) Classification of Soil on the basis of Colour, Texture and Chemical B) Study of following Soils:- i) Mountain Soil ii) Alluvial Soil iii) Regur Soil	10

		iv) Laterite Soil	
4	Soil Degradation	i) Causes and consequences of Degradation ii) Estimation of soil erosion iii) Universal soil loss equation	10
5	Soil Conservation	Soil Conservation and Management- Nalabund, Counter Bund, Check Dams and Leveling of Soil	05

List of Reference Books

Sr .No.	Name of the Book	Name of the Author
1	Introduction to Plant Geography Longman, Green and Co. Ltd .London	Polun in Nicholas(1960)
2	Ecology and Environment–Published by Kumar Rastogi, Meerut, Rajesh Printers New Delhi	Sharma P.D.(1994-95)
3	Basic Biogeography Longman Group Ltd .London	Nigel Pears(1977)
4	Biogeography, Lotus Publication, Solapur	Y S Khan
5	Environmental Geography, Rawat Publication Jaipur	H M Saxena
6	Patterns of Life:-Biogeography of the changing world –Unwin HymanInc. Ltd .London(1989)	Meike HowardK
7	Biogeography English Language Book Society, London (1982)	H. Robinson
8	Geography of Soils Hutchinson London1965	Bunting B.T
9	Fundamentals of Soil Sciences Johan wiely newyark 1978	Foth H.D
10	Soil	Butter Worth London, Briggs Danil
11	Weathering Pedology and Geomorphologic Research Brikland Publication	Olliar
12	Soil Condition and plant growth longman1961	Russel E.J
13	Climate Soil and vegetation University Tuteri press 1969	Money D.C
14	Biogeography Laxmi Publication 2015 Solapur	Dr. Mrs N.N. Chakradeo

**B.Sc.II (Sem-III&IV)-Geography
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w.e.f. June-2017**

Semester-IV

Paper–VII & VIII Optional Geography

Paper Title: BIOGEOGRAPHY AND AGRICULTURE GEOGRAPHY

Code No:-SG.2

Total Marks:-100

Course No:-SOG-201-S-4

Lecture per week:-4

No.of Credit-03

Objectives–

- .To introduce the students to the basic concepts in Biogeography, Sustainable them in understand the Biogeographical principles through an interdisciplinary approach.
- 2.To acquaint the students to the spatial relationship which exists between man and nature.
- 3.To make the students aware of need of conservation of nature.
- 4.To acquaint the students with the study of relationship between agriculture activity and geographical environment.
- 5.To course further aims to familiarize the students with the modern techniques used in Agriculture Geography.

Paper no. VII BIOGEOGRAPHY - II

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	Evolution of life	1)Geological time scale and life evolution 2)Darwin’s Theory 3)Plant and Animal Evolution	10
2	Migration and Dispersal of Plants and Animals	1) Meaning and Causes of Dispersal and Migration 2) Barriers of Dispersal and Migration 3) Dispersal of Plants and Migration of Animals	10
3	Organic Resources	1)Classification of Resources 2)Availability and Exploitation of Organic Resources 3)Use of animal, Forest and Marine Resources	10

4	Man and Ecosystem	1)Effects of human activities on Plants and Animals 2)Environmental Pollution- Types, Causes and Consequences	10
5	Environmental Management and Protection	1)Environmental Hazards-Natural and Manmade 2)Environmental Protection Laws And Management	05

Paper No VIII AGRICULTURE GEOGRAPHY

100 Marks

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	Introduction	i)Meaning ii)Nature and Scope iii)Approaches and Significance	10
2	Determinants of Agriculture	i)Physical-Relief, Climate, Water bodies, and Soil ii)Economic-Capital, Transportation and Irrigation iii)Social–Land holding, Traditional methods, Govt. Policies	10
3	Types and Problems of Agriculture	A)Types of Agriculture– i)Subsistence Agriculture ii)Intensive Agriculture iii)Extensive Agriculture iv)Plantation Agriculture v)Mixed Farming B)Problems of Agriculture in India	10
4	Agricultural Development	A)Modern Techniques used:- i)Green Revolution ii)Biotechnology iii)Organic Farming iv)Concept of Sustainable Agriculture	10

5	Allied areas In Agriculture	A) Allied areas:- i) Dairy Farming ii)Poultry iii)Sheep & Goat Rearing iv)Bio-fertilizers B)Post Harvesting:- i)Fruit processing ii)Vegetable processing	05
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1	Introduction to Plant Geography Longman, Green and Co. Ltd. London	Polunin Nicholas(1960)
2	Basic Biogeography, Longman group Ltd. London (1977)	Nigel Pearse
3	Patterns of Life:-Biogeography of the changing world– Unwin HymanInc .Ltd. London(1989)	Meike HowardK
4	Biogeography English Language BookSociety, London(1982)	H.Robinson
5	Ecology oxford & IBH Publication Co.Ltd. Pvt. Ltd. Mumbai(1975)	Odum E.P.
6	Biogeography ,Lotus Publication, Solapur	Y S Khan
7	Environmental Geography, Rawat Publication Jaipur	H M Saxena
8	Agriculture Geography, Rawat publication, New Delhi	Majid Hussain
9	Agriculture Geography,Wiley Publication, New York	Terrant J.R.
10	Agriculture Geography	C.B.Mamoria
11	Agriculture Geography, Tata Mc Grewhill publication, New Delhi	Jasbir Singand S.S. Dhillan
12	Geography of Agriculture,Prentic Hall, NewYork	Geogrosy H.P.
13	The Ecology of Agriculture Systems, Cambridge University, London	Baylis smith T.P.
14	Economic Geography, Prentic Hall, New York	Hail showrn T .N. and Alexander Jwc
15	Systematic Agricultural Geography Rawat Publication Jaipur1986	M. Hussain
16	Biogeography Laxmi Publication 2017Solapur	Dr. Mrs N.N. Chakradeo

SOLAPUR UNIVERSITY, SOLAPUR

B.Sc.II (CBCS PATTERN)

(w.e.f. June2017)

Sub:-Geography (Practical-II)

PAPER TITLE:-PRACTICAL GEOGRAPHY (Practical-II)

Practical techniques in Geography

Code No:-SG.2

Total Marks:-100

Course No:-SOG-201-S-4

Lecture per week Per Batch: 4

No. of Credit-04

Objectives–

- 1.To introduce the important basic principal of Remote Sensing.
- 2.To enable the students to use various cartographic techniques and interpretation.
- 3.To introduce the use of Statistical techniques in Geographical analysis.

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	Remote Sensing	1. Definition of R.S. 2. Application of R. Sin Geography, 3. Types of Stereoscope 4. Setting of Aerial Photo for Stereovision and Identification of Landforms of Aerial Photographs.	07
2	Weather Reports	1. Signs and Symbols used in IMD weather reports 2. Isobaric Patterns (Cyclone, Anticyclone, Trough, Ridge, Col), 3. Interpretation of Weather Reports- Pre monsoon, Monsoon, and Post monsoon.	15
3	Statistical Methods	1. Measures of Central Tendency-Mean, Median, Mode for Simple, Grouped and Ungrouped data 2. Measures of Dispersal–Quartile and Standard deviations for Simple, Grouped and Ungrouped data	15
4	Computer	Construction of Line Graph, Bar Graph and Pie diagram with the help of computer	08

List of Reference Books

Sr. No.	Name of the Book	Name of the Author
1	Principles of Remote Sensing, Longman London (1985)	Curran P.J.
2	Textbook of Remote Sensing and Geographical Introduction Systems, Hyderabad-2007	S.B. Putti
3	Statistical Analysis of Geographical Data, Diamond publication, Pune	Karlekar & Kale M.
4	Remote Sensing, Diamond publication, Pune	Karlekar
5	Remote Sensing and Image Interpretation, Wiley, New York	Lilles and T.M.& Kieter R.W.
6.	Stiatistical Geography Rawat Publication 2005	Zamir Alvi

SOLAPUR UNIVERSITY, SOLAPUR

B.Sc.II (CBCS PATTERN)

(w.e.f.June2017)

PAPER TITLE:-PRACTICAL GEOGRAPHY (Practical-III)

Mapwork and Surveying

Code No:-SG.2

Total Marks:-100

Course No:-SOG-201-S-4

Lecture per week Per Batch: 4

No. of Credit-04

Objectives–

- 1.To introduce basic principal of Surveying.
- 2.To enable the students to use various cartographic techniques and interpretation.
- 3.To familiarize the students with the geographical environment.

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	SOI Toposheet	1) Indexing of Toposheets, 2) Signs & Symbols used in SOI Toposheet, 3) Cross Section – Simple Profile and Intervisibility 4) Interpretation of Toposheets for Different Relief Features- (Mountain, Plateau and Plain Regions: a) Marginal information b) Settlement c) Transport Network d) Drainage system e) Vegetation	15
2	Surveying	1) Definition and Meaning of Surveying 2) Preparation of plan with the help of following instruments i) Plane Table-Radial, Intersection and Open Traverse ii) Prismatic Compass- Radial, Intersection and Open Traverse iii) G P S Survey OR Abney level Survey	15

3	Study Tour Report OR Project Report	StudyTourfor:maximum5days.Preparation of Study Tour Report (Visit to places of geographical interest any where in India) or Project Report	15
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List of Reference Books

Sr. No.	Name of the Book	Name of the Author
1	Surveying and leveling, Pune Vidyapeeth, Pune	Kanetkar T.P., Kulkarni S.V.
2	Maps &Diagrams-Methods &co. Ltd. London (1971)	Monkhouse F.J. &Wilkinson H.R.
3	Map work & Practical Geography, Vikas Publishing house Pvt. Ltd. New Delhi(1996)	Singh G.
4	Elements of Practical Geography, Kalyani Publishing, New Delhi(1971)	Singh R.L.