

SOLAPUR UNIVERSITY, SOLAPUR

Semester Pattern Syllabus

B.Sc. II

(w.e.f. June 2014)

Subject- Geography (Optional)

Class	Code No.	Course No.	Name of the Course	Total Marks
B. Sc. II	SG 3 A	SOG-203 A	Biogeography Paper-V	50
Seme. III	SG 4 A	SOG-204 A	Soil Science Paper-VI	50
B. Sc. II	SG 3 B	SOG-203 B	Biogeography Paper-VII	50
Seme. IV	SG 4 B	SOG-204 B	Agriculture Geography Paper-VIII	50
	SG 2	SOG-202	Practical-II Remote Sensing & Aerial Photographs, Weather Reports and Statistical Methods	50
	SG 3	SOG-203	Practical-III Map Work, Surveying & Study tour	50

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Semester Pattern Syllabus
B.Sc. II
(w.e.f. June 2014)
Semester-III
Optional Geography Paper - V
Paper Title: - BIOGEOGRAPHY (Paper-I)

Code No: - SG-3 A

Total Marks: - 50

Course Code No: -SOG-203 A

Total Lectures: -45

Objectives –

1. To introduce the students to the basic concepts in Biogeography, So as to enable 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.

Semester-III
Biogeography Paper - I
Content of Course

Unit No	Name of the Topic	Sub Topics	Total Lectures
1	Introduction to Biogeography	1. Definition and meaning 2. Nature and Scope of Biogeography 3. Environment and ecosystem	10
2	Factors Influencing the Biogeography	1. Geographical- Physiography, Soil, Climate, vegetation and Water 2. Anthropogenic	10
3	Laws and Cycle of energy	1. Laws of energy exchange 2. Food chain and food web 3. Biogeochemical cycles	10
4	Ecosystem Ecosystem	1. Concept of Ecosystem	05

		2. Major Ecosystem of the World- i)Tropical ii)Subtropical (Temperate) iii)Polar IV aquatic	
5	Biodiversity	1. Concept of Biodiversity 2. Concept of Conservation 3 Hot-Spot of Biodiversity and Threats to biodiversity 4. Management and planning	10

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	Polunin 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 changingworld –Unwin Hyman Inc. Ltd. London (1989)	Meike Howard K
7	Biogeography English Language Book Society, London (1982)	H. Robinson

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Semester Pattern Syllabus
B.Sc. II
(w.e.f. June 2014)
Semester-III
Optional Geography Paper - VI
Paper Title: - SOIL SCIENCE (Paper-I)

Code No: - SG-4 A

Total Marks: - 50

Course Code No: -SOG-204 A

Total Lectures:- 45

Objectives –

1. To acquaint the students with the study of soil, soil elements and soil types.
2. To make students aware of soil degradation and soil conservation and its management.

Semester-III
Soil Science Paper-I
Content of Course

Unit No.	Name of The Topic	Sub Topics	Total Lectures
1	Introduction	i) Definition of Soil ii) Soil as a resource iii) Formation and Composition of soil iv) Soil profile v) Importance of Soil	10
2	Factors of Soil Formation	i) Topography ii) climate iii) Biotic iv) Parent Material v) Time	10
3	Classification of Soils	A) Classification of Soils i) Podzol ii) Pedocal	10

		B) Characters of following Soils:- i) Mountain Soil ii) Alluvial soil iii) Regur soil iv) Red soil v) Laterite soil	
4	Soil Degradation	Causes and consequences of Degradation	10
5	Soil Conservation	Soil Conservation and Management	05

List of Reference Books

Sr. No.	Name of the Book	Name of the Author
1	Geography of Soils Hutchinson London 1965	Bunting B.T
2	Fundamentals of Soil Sciences Johan wiely new yark 1978	Foth H.D
3	Soil	Butter Worth London, Briggs Danil
4	Weathering Pedology and Geomorphogic Research Brikland Publication	Olliar
5.	Soil Condition and plant growth longman1961	Russel E.J
6.	Climate Soil and vegetation University Tuteri press 1969	Money D.C
7.	Geography and Soil properties Methuen of Company Ltd.London-1978	Pitty A.F.
8.	Soils: Their Properties Management Oxford University Press, Melbourne Australia (2000)	Chairman PEV & Murphy B.W.

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(w.e.f. June 2014)

Optional Geography Paper - VII

Semester-IV

Paper Title: - BIOGEOGRAPHY (Paper-II)

Code No: - SG-3 B

Total Marks: - 50

Course Code No: -SOG-203 B

Total Lectures:- 45

Objectives –

1. To introduce the students to the basic concepts in Biogeography, So as to enable them in understand the Biogeographical principles through an interdisciplinary approach.
2. To acquaint the students to the spatial relationship this exists between man and nature.
3. To make the students aware of need of conservation of nature.

Semester-IV

Biogeography Paper-II

Content of Course

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	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) Different uses of Forest Products in Industry 4) Use of animal and marine resources	10

4	Man and Ecosystem	1) Effects of human activities on plants and animals 2) Environmental pollution	10
5	Environmental Management and Protection	1) Environmental Hazards 2) Environmental protection laws and management	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	Polunin Nicholas (1960)
2	Basic Biogeography, Longman group Ltd. London (1977)	Nigel Pearse
3	Patterns of Life:- Biogeography of the changing world –Unwin Hyman Inc. Ltd. London (1989)	Meike Howard K
4	Biogeography English Language Book Society, London (1982)	H. Robinson
5	Ecology oxford & IBH Pubication Co. Ltd. Pvt. Ltd. Mumbai (1975)	Odum E.P.
6	Biogeography, Lotus Publication, Solapur (2007)	Y S Khan
7	Environmental Geography, Rawat Publication Jaipur (1999)	H M Saxena

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(w.e.f. June 2014)

Optional Geography Paper - VIII

Semester-IV

Paper Title: - AGRICULTURE GEOGRAPHY (Paper-II)

Code No: - SG-4 B

Total Marks: - 50

Course No: -SOG-204 B

Total Lectures:-45

Objectives –

1. To acquaint the students with the study of relationship between agriculture activity and geographical environment.
2. To course further aims to familiarize the students with the modern techniques used in Agriculture Geography.

Semester-IV

Agriculture Geography Paper-II

Content of Course

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 of Agriculture –	A) Types of Agriculture – i) Subsistence Agriculture ii) Intensive Agriculture iii) Extensive Agriculture iv) Plantation Agriculture	10

		v) Mixed Agriculture B) Problems of Agriculture in India	
4	Agriculture 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-Rairing iv) Biofertilizers B) Post Harvesting:- i) Fruit processing ii) Vegetable processing	05

List of Reference Books

Sr. No.	Name of the Book	Name of the Author
1	Agriculture Geography, Rawat publication, New Delhi	Majid Hussain
2	Agriculture Geography, Wiley Publication, New York	Terrant J.R.
3	Agriculture Geography	C.B. Mamoria
4	Agriculture Geography, Tata McGrew hill publication, New Delhi	Jasbir Sing and S.S. Dhillan
5	Geography of Agriculture, Prentic Hall, New York	Geogrosy H.P.
6	The Ecology of Agriculture Systems, Cambridge University, London	Baylis smith T.P.
7	Economic Geography, Prentic Hall, New York	Hailshowrn T.N. and Alexander Jwc
8.	Systematic Agricultural Geography Rawat Publication Jaipur 1986	M. Hussain

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B.Sc. II

(w.e.f. June 2014)

Sub:- Geography (Practical –I)

PAPER TITLE: -PRACTICAL GEOGRAPHY (Practical-I)

Remote Sensing, Aerial Photographs, Weather Reports and Statistical Methods

Code No: - SG-2

Total Marks: - 50

Course No: -SOG-202

Total Lectures: - 45

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	A) Definition of Remote Sensing, Need and use of Remote sensing techniques in Geography: Basic concept of Remote Sensing, Sensor and Platforms. B) Application of Remote Sensing in Geography, Types of Stereoscope, Setting of Aerial Photo for Stereovision and Identification of Landforms of Aerial Photographs.	15
2	Weather Reports	Isobaric Patterns (Cyclone, Anticyclone, Tough, Ridge, Col), Signs and Symbols used in IMD weather reports. Interpretation of at least Three Weather Reports- Pre monsoon, Monsoon, and Post monsoon.	15

3	Statistical Methods	i) Measures of Central Tendency- Mean, median, mode. ii) Measures of Dispersion – Quartile and Standard deviations.	15
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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,Hydrabad-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	Lillesand T.M. & Kiefer R.W.
6.	Statistical Geography Rawat Publication 2005	Zamir Alvi

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Class:-B.Sc. Part – II

(w.e.f. June 2014)

PAPER TITLE: -PRACTICAL GEOGRAPHY (Practical-II)

(Map work, Surveying and Study tour)

Code No: - SG-3

Total Marks: - 50

Course Code No: -SOG-203

Total Lectures : -45

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, Signs & Symbols used in SOI Toposheet, Colour Convention. 2) Cross Section – Simple Profile and Intervisibility. 3) Interpretation of three Toposheets of Different Relief Features- (Mountains, Plateau, Plain Regions.)	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) Abney level Survey	15

3	Study Tour Report	Study Tour for minimum one day and maximum 3 days. Preparation of Study Tour Report (Visit to places of geographical interest in any where in India)	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	Mapwork & 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.