

# **SOLAPUR UNIVERSITY, SOLAPUR**

## **Semester Pattern Syllabus**

### **B.Sc. II**

**(w.e.f. June 2011)**

#### **Subject- Geography (Optional)**

<b>Class</b>	<b>Code No.</b>	<b>Course No.</b>	<b>Name of the Course</b>	<b>Total Marks</b>
B.Sc. II	SG3A	SOG-203A	Biogeography Paper-I	50
Seme.III	SG4A	SOG-204A	Soil Science Paper-I	50
B.Sc. II	SG3B	SOG-203B	Biogeography Paper-II	50
Seme.IV	SG4B	SOG-204B	Agricultural Geography Paper-II	50
	SG2	SOG-202	Practical-I-Remote Sensing & Aerial Photographs	50
	SG3	SOG-203	Practical-II-Map Work, Surveying & Study tour	50

# **SOLAPUR UNIVERSITY, SOLAPUR**

## **Semester Pattern Syllabus**

### **B.Sc. II**

**(w.e.f. June 2011)**

#### **Semester-III**

**Paper Title: - BIOGEOGRAPHY (Paper-I)**

**Code No: - SG-3 A**

**Total Marks: - 50**

**Course Code No: -SOG-203 A**

**Lecture per week: -3**

#### **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**

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lectures</b>
1	Introduction to Biogeography	1. Definition and meaning 2. Nature of Biogeography and Scope 3. Environment and ecosystem	08
2	Factors Influencing the Biogeography	1. Geographical- physiography, Soil, Climate, vegetation and Water 2. Anthropogenic	12
3	Laws and Cycle of energy	1. Laws of energy exchange 2. Food chain and food web 3. Biogeochemical cycles	05
4	Ecosystem	1. Concept of Ecosystem 2. Major Ecosystem of the World-	05

		i)Tropical ii)Subtropical iii)Polar	
5	Biodiversity	1. Concept of Biodiversity 2. Concept of Conservation 3. Need of Conservation of Biodiversity 4. Management and planning	10

### List of Reference Book

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)

# SOLAPUR UNIVERSITY, SOLAPUR

## Semester Pattern Syllabus

### B.Sc. II

(w.e.f. June 2011)

#### Semester-III

**Paper Title: - SOIL SCIENCE (Paper-I)**

**Code No: - SG-4 A**

**Total Marks: - 50**

**Course Code No: -SOG-204 A**

**Lecture per week: -3**

#### **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**

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lectures</b>
1	Introduction	i) Meaning of soil ii) Soil as a resource iii) Formation and Composition of soil iv) Soil profile v) Soil structure vi) Soil texture	10
2	Composition of soil	A) Mechanical elements :- i) Soil Temperature ii) Soil air iii) Soil Moisture iv) Soil organism B) Chemical elements:- i) Soil PH ii) Major nutritive elements and their significance C) Soil fertility	12

3	Classification of soil	A) Classification according to colour & texture B) Study of following Soils:- i) Mountain Soil ii) Alluvial soil iii) Regur soil iv) Red soil v) Laterite soil vi) Marshes	10
4	Soil Degradation	Causes and consequences of Degradation	04
5	Soil Conservation	Soil Conservation and Management	04

### List of Reference Book

Sr. No.	Name of the Book	Name of the Author
1	Geography of Soils	Hutchinson Londan, Bunting
2	Soil Sciences	Rode A.A.
3	Soil	Butter Worth, Londan, Briggs Danil
4	Weathering Pedology and Geomorphologic Research	Brikland P.

# **SOLAPUR UNIVERSITY, SOLAPUR**

## **Semester Pattern Syllabus**

### **B.Sc. II**

**(w.e.f. June 2011)**

#### **Semester-IV**

**Paper Title: - BIOGEOGRAPHY (Paper-II)**

**Code No: - SG-3 B**

**Total Marks: - 50**

**Course Code No: -SOG-203 B**

**Lecture per week: -3**

#### **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-IV**

#### **Biogeography Paper-II**

#### **Content of Course**

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lectures</b>
1	Evolution of life	1) Geological time scale and life evolution 2) Darwin's Theory 3) Plant and Animal Evolution	08
2	Migration	1) Meaning and Causes of dispersal and Migration 2) Barriers of Dispersal and Migration 3) Causes of Migration 4) Dispersal of Plants and Migration of Animals	08
3	Organic resources	1) Classification of Resources 2) Availability and Exploitation	10

		of Organic Resources 3) Different uses of Forest Products in Industry 4) Use of animal and marine resources	
4	Man and Ecosystem	1) Effects of human activities on plants and animals 2) Environmental pollution	08
5	Environmental Management	1) Environmental Hazards 2) Environmental protection laws and management	06

### List of Reference Book

<b>Sr. No.</b>	<b>Name of the Book</b>	<b>Name of the Author</b>
1	Basic Biogeography , Longman group Ltd. London (1977)	Nigel Pearse
2	Patterns of Life:- Biogeography of the changing world –Unwin Hyman Inc.Ltd. London (1989)	Meike Howard K
3	Biogeography English Language Book Society, London (1982)	H. Robinson
4	Ecology oxford & IBH Publication Co. Ltd. Pvt. Ltd. Mumbai (1975)	Odum E.P.

# SOLAPUR UNIVERSITY, SOLAPUR

## Semester Pattern Syllabus

### B.Sc. II

(w.e.f. June 2011)

#### Semester-IV

**Paper Title: - AGRICULTURE GEOGRAPHY (Paper-II)**

**Code No: - SG-4 B**

**Total Marks: - 50**

**Course No: -SOG-204 B**

**Lecture per week: -3**

#### **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**

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lectures</b>
1	Introduction	i) Meaning ii) Nature and Scope iii) Approaches and Significance	08
2	Determinants of Agriculture	i) Physical- Relief, Climate, Water Bodies, and Soil ii) Economic - Capital, Transportation, and iii) Social – Land holding, Traditional methods, Govt. Polices	10
3	Irrigation and types of Agriculture	A) Irrigation – i) Importance of Irrigation ii) Types of irrigation- Well, Bore, Canal, Tank and Lift B) Types of Agriculture –	12

		<ul style="list-style-type: none"> <li>i) Subsistence Agriculture</li> <li>ii) Intensive Agriculture</li> <li>iii) Extensive Agriculture</li> <li>iv) Plantation Agriculture</li> <li>v) Mixed Agriculture</li> </ul> <p>C) Problems of Agriculture in India</p>	
4	Agriculture Development	<p>A) Modern Techniques used:-</p> <ul style="list-style-type: none"> <li>i) Green Revolution</li> <li>ii) Biotechnology</li> <li>iii) Organic Farming</li> <li>iv) Concept of Sustainable Agriculture</li> </ul>	5
5	Allied areas in Agriculture	<p>A) Allied areas:-</p> <ul style="list-style-type: none"> <li>i) Dairy Farming</li> <li>ii) Poultry</li> <li>iii) Sheep &amp; Goal-Rairing</li> <li>iv) Biofertilizers</li> </ul> <p>B) Post Harvesting:-</p> <ul style="list-style-type: none"> <li>i) Fruit processing</li> <li>ii) Vegetable processing</li> </ul>	5

### List of Reference Book

<b>Sr. No.</b>	<b>Name of the Book</b>	<b>Name of the Author</b>
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 thill publication, New Delhi	Jasbir Sing and S.S. Dhillan
5	Geography of Agriculture, Prentico 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



# **Solapur University, Solapur**

## **Nature of Question Paper For Semester Pattern**

- **Faculty of Science**  
(w.e.f. June 2011)

**Time :- 2 hrs.**

**Total Marks-50**

- a
- Q.No.1) Multiple choice questions. (10)**
- 1) -----  
a)        b)        c)        d)
- 2)  
3)  
4)  
5)  
6)  
7)  
8)  
9)  
10)
- Q.No.2) Answer any Five of the following (10)**
- i)  
ii)  
iii)  
iv)  
v)  
vi)
- Q.No.3) A) Answer any Two of the following (06)**
- i)  
ii)  
iii)
- B) Write the Answer/Solve/Problem/Note (04)**
- Q.No.4) Answer any Two of the following (10)**
- i)  
ii)  
iii)
- Q.No.5) Answer any Two of the following (10)**
- i)  
ii)  
iii)

**SOLAPUR UNIVERSITY, SOLAPUR**  
**Semester Pattern Syllabus**  
**B.Sc. II**  
**(w.e.f. June 2011)**

**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**

**Lecture per week Per Batch: -4**

**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.

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lecture</b>
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.	20
2	Weather Reports	Isobaric Patterns (Cyclone, Anticyclone, Trough, 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 Dispersal – Quartile and Standard deviations.	15
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### List of Reference Book

Sr. No.	Name of the Book	Name of the Author
1	Principles of Remote Sensing, Longman London	Curran P.J. (1985)
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 Shrikant
5	Remote Sensing and Image Interpretation, Wiley, New York	Lillesand T.M. & Kieter R.W.

**SOLAPUR UNIVERSITY, SOLAPUR**  
**Semester Pattern Syllabus**

**Class:-B.Sc. Part – II**

**PAPER TITLE: -PRACTICAL GEOGRAPHY (Practical-II)**  
**(Map work, Surveying and Study tour)**

**Code No: - SG-3**

**Total Marks: - 50**

**Course Code No: -SOG-203**

**Lecture per week Per Batch: -4**

**To implement from June -2011**

**Objectives –**

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

<b>Unit No.</b>	<b>Name of The Topic</b>	<b>Sub Topic</b>	<b>Total Lecture</b>
1	S.O.I. Toposheets	1) Indexing of Toposheets, Signs & Symbols used in SOI Toposheet. 2) Cross Section – Simple Profile and Intervisibility. 3) Interpretation of three Toposheets of Different Relief Features- (Mountains, Plateau, Plain Regions.)	20
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 Book

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

**SOLAPUR UNIVERSITY, SOLAPUR**

**Nature of Question Paper**

**Class- B.Sc. PART – II**

**PRACTICAL GEOGRAPHY**

**Course No.:- SOG-202  
SOG-203**

**Practical – I  
Practical – II**

**Total Marks-50**

Q.1- Objective Type questions

(Total-10 questions with four multiple choice each & 15 Minutes time.) (10)

Q.2-Short Notes (No Internal option) (10)

A)-----4

B)-----4

C)-----2

Q.3-Short answer question (No Internal option) (10)

A)-----4

B)-----4

C)-----2

Q.4-Long Answer question (10)

(2 to 5 Marks & with internal option)

Q.5- Long Answer question (10)

(2 to 5 Marks & with internal option)

## 1. Structure of the courses :-

- A) Each paper of every subject for Arts, Social Sciences & Commerce Faculty shall be of 50 marks as resolved by the respective faculties and Academic Council.
- B) For Science Faculty subjects each paper shall be of 50 marks and practical for every subject shall be of 50 Marks as resolved in the faculty and Academic Council.
- C) For B. Pharmacy also the paper shall be of 50 marks for University examination. Internal marks will be given in the form of grades.
- D) For courses which were in semester pattern will have their original distribution already of marks for each paper.
- E) For the faculties of Education, Law, Engineering the course structure shall be as per the resolutions of the respective faculties and Academic Council.

## 2. Nature of question paper:

### A) Nature of questions.

“20% Marks - objectives question” **(One mark each and multiple choice questions)**

“40% Marks - Short notes / Short answer type questions / Short Mathematical type questions/ Problems. **(2 to 5 Marks each)**

“40% Marks - Descriptive type questions / Long Mathematical type questions / Problems. **(6 to 10 Marks each)**

- B) Objective type question will be of multiple choice (MCQ) with four alternatives. This answer book will be collected in first 15 minutes for 10 marks and in first 30 minutes for 20 marks. Each objective question will carry one mark **each**.
  - C) Questions on any topic may be set in any type of question. All questions should be set in such a way that there should be permutation and combination of questions on all topics from the syllabus. As far as possible it should cover entire syllabus.
  - D) There will be only five questions in the question paper. All questions will be compulsory. There will be internal option **(30%)** and not overall option. **for questions 2 to 5.**
3. Practical Examination for B. Sc. I. will be conducted at the end of second semester.
  4. Examination fees for semester Examination will be decided in the Board of Examinations.

The structures of all courses in all Faculties were approved and placed before the Academic Council. After considered deliberations and discussion it was decided not to convene a meeting of the Academic Council for the same matter as there is no deviation from any decision taken by Faculties and Academic Council. Nature of Question Paper approved by Hon. Vice Chancellor on behalf of the Academic Council.