Punyashlok Ahilyadevi Holkar Solapur University, Solapur

NAACReAccredited2022
'B^{++}' Grade (CGPA 2.96)

Name of the Faculty: Science & Technology

(As Per National Education Policy 2020)

Syllabus: Geography

Name of the Course: B. Sc. (Sem. I & II)

(Syllabus to be implemented from June 2024)

B. Sc. I (Geography)
Semester I & II
Syllabus Structure (June 2024)

Level	Semester	Paper	Title of the paper	Lecture per Week		Total Marks	Credit
				T	P		
4.5	I	DSC-I(T)	Geomorphology- I **GO4-0107**	2	-	50	2
		DSC-I(P)	Representation of Relief Features **GO4-0107P**	-	4	50	2
		GE/OE–I(T)	Geography of Maharashtra-I **GO4-GE-OE-0107**	2	-	50	2
		SEC – I(P)	Introduction to Computer **GO4-SEC-0107**	-	4	50	2
		L-1	**English GO4-ENG-0107**				
		IKS-1	General IKS **GO4-IKS-0107**				
		VEC-1	**Indian Constitution and Democracy GO4-ICD-0107**				
100-200	II	DSC -II(T)	Geomorphology- II **GO4-0207**	2	-	50	2
		DSC-II(P)	Analysis of Relief Profile **GO4-0207P**	-	4	50	2
		GE/ OE–II(T)	Geography of Maharashtra-II **GO4-GE-OE-0207**	2	-	50	2
		SEC– II(P)	Application of Computerin Geography **GO4-SEC-0207**	-	4	50	2
		L-2	**English GO4-ENG-0207**	2	-	50	2
		IKS-2	General IKS **GO4-IKS-0207**	2	-	50	2
		VEC-2	**Indian Constitution and Democracy GO4-ENS-24**	2	-	50	2
		CC	NCC/NSS/Culture/sports/Health,Wellness and Fitness/Yoga Education	2	-	50	2

T – Theory P-Practical 2Credits of Theory=2Hours of teaching perweek

1 Credits of Practical = 2 Hours per week

DSC-Discipline Specific Course

SEC- Skill Enhance Course

OE/ GE-Open Elective/ Generic Elective

Punyashlok Ahilyadevi Holkar Solapur University, Solapur
Faculty of Science and Technology
NEP Choice Based Credit System (CBCS) (W.e.f. 2024)
Title of the Course: B.Sc. Part-I Subject: Geography

Preamble of the Program:

The purpose of higher education is to develop an integrated personality of the individual learner and the educational system. This program is to provided if ferent Geographical knowledge and skills to the learner. Geography is an important scientific discipline which involves dynamics and evolutionary process operating interior and on the lithosphere of the Earth. It also includes Earth's interior and human environments relationship. Geography is a comprehensive and dynamic program designed to provide students with a deep understanding of the latest concept of Geography also to provide practical skills to learner. The B. Sc. Geography program is for two years, with each year offering a progressively advanced curriculum designed to build a strong foundation in Geography. The syllabus is structured around several key components:

1. **Major Course (Discipline Specific Course):**

   This is a core course form the backbone of the program, providing in-depth knowledge and understanding of essential Geographical concepts and different theories to the students. It will help to engage the students with topics ranging from fundamentals of Geomorphology and Earth Movements.

   Students have the opportunity to choose DSC (P) along with DSC1 as a Major Subject. With two credits. It includes Method sof Relief Representation, slope and Gradients.

2.Open Electives/General Electives:

The program encourages intellectual exploration beyond the core discipline by offering a wide range of elective courses. These electives enable students to pursue their interests in diverse subjects, fostering creativity, and a well-rounded educational experience.

3. Skill Enhancement Courses:

Practical and field based skills are essential to the learner and technical knowledge is integral to the program. Skill enhancement course is to providing hands-on experience in area of practical Geography, and GIS and GPS. These courses are designed to prepare students for acquiring knowledge about Skill enhancement course of basic computer application in Geography.

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Faculty of Science & Technology Nep 2020

Compliant Curriculum B. Sc (Geography)

Program Outcomes (PO)

Program Outcomes

Major Course (Discipline Specific Course):

PO1: Understand the theories and fundamental concepts of Geomorphology.

PO2: Understand the evolution of earth structure and interior of the earth.

PO3: Learn and understand the different erosion and depositional landform of the earth

PO4: Learn rock structure and geomorphic process.

PO5: Understand and prepare different kinds of slope and Gradient.

PO6: Development of observation skills and analysis of different profile of the slope.

Open Electives/General Electives:

PO7: Have knowledge about the physiography and seasons of the Maharashtra

PO8: Have knowledge about the different soil, natural vegetation and its conservation of Maharashtra

Skill Enhancement Course:

PO9: Acquiring knowledge about basic application of computer in Geography

PO10: Acquiring knowledge about computer in respect to statistical analysis.

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Faculty of Science & Technology Nep 2020
Compliant Curriculum B. Sc (Geography)

Program Specific Outcomes (PSOs)

PSO 1 - Student will gain the knowledge of physical geography. They will gather knowledge about the fundamental concepts of Geomorphology and will have a general understanding about the Geomorphic process and their formation.

PSO 2 –Acquire knowledge about exogenic and endogenic forces of the earth.

PSO 3 –Understanding crustal mobility and tectonics with special emphasis on their role in development of landforms.

PSO 4 –Understand and draw a different types of slope.

PSO 5- Have knowledge about the different types of soil and its conservation.

PSO 6- Trained the students in practical session, such as techniques of mapping slope profile, learning and handling of computer software, interpretation of maps. As well as to understand the spatial variation of phenomena on the Earth's Surface. Students will learn how to prepare statistical techniques in computer application.

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Structure of Syllabus (NEP - 2020)

B. Sc. Part-I Semester–I

Name of the Paper: Geomorphology-I

Paper Code: DSC– I (T) **TotalLectures-30**

CourseCredit:2 **TotalMarks-50**

Preamble of the Course

The course of Geomorphology is to designed at the B.Sc. first year students. It is a comprehensive and dynamic course designed to provide students with a deep understanding of the latest concept of Geomorphology. along with the practical skills required to apply this knowledge in various scientific and technological contexts. The course is to designed to understand the of processes of Earth's Movement,

Course Objective

1. To in traduce the latest concepts in Geomorphology.
2. To study the earth movements.

Course Outcomes:

1. Understand physical, social, Economic and environmental perspectives.
2. Remember study the earth movements

Contents of the course

Unit No.	Details	No. of Lectures/ Periods	No.of Credits
1	**Introduction to Geomorphology** 1.1 Meaning and Definition of Geomorphology 1.2 Nature of Geomorphology 1.3 Scope of Geomorphology 1.4 Importance of Geomorphology	**15**	**1**
2	**Earth and Earth Movements** 2.1 Interior Structure of the earth 2.2 Continental Drift Theory of Alfred Wegner 2.3 Endogenic forces- FoldingandFaulting 2.4 Sudden Movement-Earthquakes and Volcanoes	**15**	**1**

References:

1) Worcester P.G (1969): A Text book of Geomorphology, VANN as trand Reinhold

Company, New York, U.S.A

2) Daya l P. (1996): Text Book of Geomorphology, Shukla Book Depot, Patana

3) Majid Husain (2001): Fundamentals of Physical Geography, Rawat Publications, Jaipur.

4) Singh Savindra (2003): Physical Geography, Prayag Pustak Bhavan, Allahabad.

5) Bloom A. L. (2004): Geomorphology, Waveland press INC.

6) Leong Goh Cheng (2013): Physical and Human Geography, Oxford University Press, New Delhi.

7) Maske and Nagare (2019): Geomorphology, Mayur Publication and Distributor, Solapur

8) Shinde Ankush and Wagh Arjun (2023): An Introduction to Geomorphology, IIP Chikmangrul Karnataka

9) Magar Tanaji : Basic Concepts in Physical Geography- Think Tank Publication

Punyashlok Ahilyadevi Holkar Solapur University, Solapur
Structure of Syllabus (NEP 2020)
B. Sc. Part-I Semester– I
Name of the Paper: Representation of Relief Features

Paper Code: DSC -I(P) **TotalLectures-60**
CourseCredit:2 **TotalMarks-50**

Preamble

Practical Work is the most important part of Geography. Representation of relief features is an indispensable tool in Geographical Studies & Research activities. The present syllabus of this paper includes Methods of relief representation and slope and gradients.

Course Objectives:

1. To introduce the qualitative method so f relief features.
2. To study the quantitative method so f relief features.

Learning Outcomes:

1. Understand the qualitative method so f relief features.
2. Students knows quantitative method so f relief features.

Content so f the course

Unit No.	Details	No. of Lectures/ Periods	No. of Credits
1	**Method so f Relief Representation** 2.1 Qualitative-Hachures, Hill shading, Layer Tint 2.2 Quantitative - Form lines, Spot Heights, Bench Marks, Triangulation Mark, Contour Line	30	1
2	**Slope and Gradient** 1.1 Type so f Slopes- i) Steep slope ii) Gentle slope iii) Even slope iv) Uneven slope v) Convex Slope vi) Concave slope vii) Terraced slope 1.2MethodsofexpressionofslopesbyGradient Degree, Percentage, Miles.	30	1

References:

1. Misra R.P. and Ramesh A. (1969): Fundamentals of Cartography, Concept Publishing Company, New Delhi
2. Robinson A. H., Morrison J. L., Muehrcke P. C., Kimerling A. J., Guptill S. C. (1995): Elements of Cartography: Wiley Publishers
3. Mac Eachren A. M. (1994): Some Truth with Maps- A Primer on Symbolization and Design, University Park: The Pennsylvania State University.
4. Mishra R.P. (2014): Fundamentals of Cartography, Concept Publishing Co.
5. Monmonier M. (1991):How co Liewith Maps, Chicago: University of Chicago Press.

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Structure of Syllabus (NEP-2020)

B. Sc. Part-I Semester- I

Name of the Paper: Geography of Maharashtra -I

Paper Code: GE / OE-I **TotalLecture-30**

CourseCredit:2 **TotalMarks-50**

Preamble of the Course

The course of Geography of Maharashtra is a comprehensive and dynamic course designed to provide students with a deep understanding of the latest concept of Geography of Maharashtra. The course is to designed to understand the of Physiography and Climate of Maharashtra and to understand the types of soil, natural vegetation and different recourses of Maharashtra.

Course Objective:

1) To acquaint the student with basic Physical knowledge of Maharashtra.

2) To acquaint the student with prospects and problem so f Maharashtra.

LearningOutcome:

1) Student will familiar with prospective of Maharashtra.

2) StudentEnhancehisknowledgefordoingresearchonMaharashtra'sproblemand futuristic development plan for Maharashtra

Content of the Course

Unit No	Details	No. of Lectures/ Period	No. of Credits
1	**Physiography and Climate** 1.1 Location 1.2 Physiography 1.3 Drainage Pattern 1.4 Seasons	15	1
2	**Soil, Natural Vegetation and Resources** 2.1 Types of soil and soil conservation 2.2 Types of Vegetation and Forest Conservation 2.3 Mineral-Ironore and Bauxite 2.4 Power Resources–Coal and Petroleum	15	1

References:

1) Arunachalam B., (1967), Maharashtra–A study in Physical and Regional Setting, Sheth and Co., Mumbai.

2) Deshpande, C. D. (1971). Geography of Maharashtra. National Book Trust, New Delhi.

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Structure of Syllabus (NEP2020)

B. Sc. Part-I Semester- I

Name of the Paper: Introduction to Computer

Paper Code: SEC-I (P) **TotalLecture-60**

CourseCredit:2 **TotalMarks-50**

Preamble of the Course

The course of Introduction to Computer is a practical oriented course and designed to provide practical knowledge to students with a deep understanding of the basic concept of Computer. The course is to designed to understand the basics of computers.

Course Objectives:

1) Provide basic know ledge to students about computer.

2) To make acquaint the student with the dynamic aspect so f Information and Technology.

Learning Outcomes:

1) The students will have gotbasic knowledge of Computer.

2) ToremembertheancientIndiansscientistsandtheircontributioninScienceand Technology

Contents of the course

Unit No	Details	No of Lectures	No of Credit
1	**Introduction to Computer** Meaning and definition of Computer History of Computer Characteristics of Computer Classification of Computers Significance of Computers	30	1
2	**Components & Fundamentals of Computer System** **Components of Computer System** Central Processing Unit Input devices Output devices **Concept of Hardware and Software** Hardware Software 2.2.3. Application Soft-ware related to geography–QGIS and Arc GIS 2.2.4 Systems software	30	1

References:

Computer Knowledge: D. A. Gautam Spardha Unnati Prakashan
Introduction To Computer Security-Bishop, M/ Venkat ramanayya, S Pearson
Introduction To Computers-Norton, Peter4th ed TMH
Introduction To Computers-Norton, Peter6th ed TMH
Computer Data-base Organization-Martin, James's 2nd ed PHI
Computer Fundamentals-Goel, Anita Pearson
Computer Fundamentals: Architecture &Organization-Ram, B.4thedNewAge
Computer Fundamentals: Concepts, Systems & Applications-Sinha, P.K. BPB
Computer Fundamentals: Concepts, Systems & Applications-Sinha, P. K/ Sinha, P. 4th ed BPB

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Structure of Syllabus (NEP 2020)

B.Sc. Part-I Semester–II

Name of the Paper: Geomorphology-II

Paper Code: DSC –II(T) **Lectures-30**

Course Credit: 2 **TotalMarks-50**

Preamble of the Course

The course of Geomorphology is to designed to provide students with a deep understanding of the latest concept of Geomorphology. The course is to designed to understand the of different types of Rocks and Geomorphic processes, and different erosional and depositional landform.

Course Objectives:

1. To familiarize the student with some Geomorphic process.
2. To study the theories and concepts in Geomorphology.
3. To study the Evolution of Landforms.

Learning Outcomes:

1. Understand the basic concept in geomorphology.
2. To understand the conceptual and dynamic aspect so f landform development.
3. StudentswillalsolearntherelevanceofappliedaspectsofGeomorphologyinvarious fields.

Content so f the course

Unit No.	Details	No. of Lectures/ Periods	No. of Credits
1	**Rocks and Geomorphic Processes** 1.1 Rocks: Types and characteristics 1.2 Weathering: Meaning and Types 1.3 Mass wasting 1.4 Cycle of Erosion by W. M. Davis	15	1
2	**Evolution of Land forms** (Erosional and Depositional) 2.1 Fluvial 2.2 Aeolian 2.3 Glacial 2.4 Coastal	15	1

References:

1) Worcester P.G (1969): A Textbook of Geomorphology, VAN Nastr and Reinhold Company, New York, U.S.A

2) Dayal P. (1996): Text Book of Geomorphology, Shukla Book Depot, Patana

3) Majid Husain (2001): Fundamentals of Physical Geography, Rawat Publications, Jaipur.

4) Singh Savindra (2003): Physical Geography, Prayag Pustak Bhavan, Allahabad.

5) Bloom A. L. (2004): Geomorphology, Wavel and press INC.

6) Leong Goh Cheng (2013): Physical and Human Geography, Oxford University Press, New Delhi.

7) Maske and Nagare (2019): Geomorphology, Mayur Publication and Distributor, Solapur

8) Shinde Ankush and wagh Arjun (2023): An Introduction to Geomorphology, IIP Chikmangrul Karnataka

9) Magar Tanaji: Basic Concepts in Physical Geography-Think Tank Publication

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Structure of Syllabus (NEP 2020)
B. Sc. Part-I Sem.– II
Name of the Paper: Analysis of Relief Profile

Paper Code: DSC-II(P) **TotalLectures-60**
CourseCredit:2 **TotalMarks-50**

Preamble of the Course

Practical work is most important part of Geography. Analysis of relief profile is an indispensable tool in Geographical practical. The present syllabus of this paper includes Representation of Relief by Contours and different profile.

Course Objectives:

1. To introduce the qualitative method so f relief features.
2. To study the quantitative method so f relief features.

Learning Outcomes:

1. Understand the qualitative method so f relief features.
2. Students knows quantitative method so f relief features.

Content so f the course

Unit No.	Details	No. of Lectures/ Periods	No. of Credits
1	**Representation of Relief by Contours** Hill, Mountain, Ridge, Cliff, Saddle, Plateau, Col or Pass, Gorge, 'V' Shaped Valley, Waterfall, 'U' Shaped Valley, Cirque, Sea cliff.	30	1
2	**Profile** Serial profile, Superimposed profile, Composite profile, Projected profile	30	1

References:

1. Misra R.P. and Ramesh A. (1969): Fundamentals of Cartography, Concept Publishing Company, New Delhi
2. Robinson A. H., Morrison J. L., Muehrcke P. C., Kimerling A. J., Guptill S. C. (1995): Elements of Cartography: Wiley Publishers
3. Mac Eachren A. M.(1994): Some Truth with Maps- A Primer on Symbolization and Design, University Park: The Pennsylvania State University.
4. Mishra R.P. (2014): Fundamentals of Cartography, Concept Publishing Co.
5. Monmonier M. (1991): Howco Liewith Maps, Chicago: University of Chicago Press.

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Structure of Syllabus (NEP 2020)

B. Sc. Part-I Semester-II

Name of the Paper: Geography of Maharashtra-II

Paper Code: GE/OE – II (T) **TotalLecture-30**

CourseCredit:2 **TotalMarks-50**

Preamble of the course

The course is to designed to understand the growth of population, factors affecting on population, distribution and problems of population in Maharashtra. As well as population composition

Course Objectives:

1) To understand the Growth and distribution of population in Maharashtra.

2) To study the demo graphic aspects in Maharashtra.

Learning Outcomes:

1) Understand the Growth and distribution of population in Maharashtra.

2) StudentwillexaminepopulationdynamicsandcharacteristicsinMaharashtra.

Contents of the course

Unit No.	Details	No. of Lectures/ Periods	No. of Credits
1	**Population** 1.1 Growth of population 1.2 Factor saffecting on distribution of population 1.3 Distribution of population 1.4 Problems and Remedies of population growth	15	1
2	**Population Composition** 2.1 Sex ratioand Age Composition 2.2 Literacy 2.3 Rural–Urban Population 2.4 Migration	15	1

References:

1) Arunachalam B., (1967), Maharashtra – A study in Physical and Regional Setting, Sheth and Co., Mumbai.

2) Deshpande, C. D. (1971). Geography of Maharashtra. National Book Trust, New Delhi.

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Structure of Syllabus (NEP2020)

B. Sc. Part-I Semester- II

Name of the Paper: Application of Computerin Geography

Paper Code: SEC-II(P) **TotalLecture-60**

CourseCredit:2 **TotalMarks-50**

Preamble of the Course

The course of application of Computer in Geography is a practical oriented course and designed to provide practical knowledge to students with a deep understanding of the applied concept of Computer. It includes different application of computer with special reference to statistical data.

Course Objectives:

1) To introduce the Computer Statistical Analysis

2) Tointroduce Graphical Software Skill

Learning Outcomes:

1) Student sunder stand the basic concept of Computer Application in Geography

2) Student sunder stand basic graphical software skill

Content of the Course

Topic No	Content	No. of Lectures	No of Credits
1	**Application of Computer** 1.1 Application of Computerin Geography 1.2 Role of Computer in Statistical Analysis of Geographical data: Collecting Data, Graphical Presentation, Analyzing the Numerical Data, Interpreting the Numerical Data	30	1
2	**Computer Application in Geography: With Special Reference to Statistical data** 2.1 Graphical Preparation of Data- Bar graph, Line graph and Pie diagram 2.2 Types of Data- Simple, Discrete and Continuous 2.3 Statistical Analysis of Data-Mean, Median and Mode	30	1

References:

1) Introduction To Computer Security-Bishop, M/Venkatramanayya, S Pearson

2) Introduction To Computers-Norton, Peter4thedTMH

3) Computer Applications in Management-Dahiya, U/Nagpal, S. Taxman Allied Service

4) Computer Data-base Organization-Martin, James2ndedPHI