

Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur (Autonomous)
NEP-2020- Implementation w.e.f. Academic Year – 2023-24 (UG)
Illustrative Credit Distribution Structure for Three / Four year Honours with
Research Degree Programme
With Multiple Entry and Exit options

B.Sc.-I Geography

Level	Sem.	Major		Minor	Generic (GE/OE)	Vocational and Skill VSC, SEC (VSEC)	AEC, VE, IKS	OJT, FP, CEP, CC,RP	Cum. Cr./Sem.
		Mandatory	Elective						
4.5	I				OE (2) Physical Geography of Maharashtra Practical-I (2) Cartographic Techniques I	SEC(2) Introduction to GIS			6
	II				OE(2) Human Geography Practical-II (2) Cartographic Techniques II	SEC(2) Introduction to GPS			6
	Cum. Cr.				08	04			12

Exit option: Award of UG Certificate in Major with 44 Credits and an additional 4 credits course/Internship OR Continue with Major and Minor

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(Autonomous)
B.Sc. Part-I Geography Semester-I
OE – I (2)

Subject – Physical Geography of Maharashtra

Objectives:

1. To study the Location, Physiography and Drainage pattern of Maharashtra.
 2. To understand of Climate, climatic region, Drought prone and flood are of Maharashtra.
- Outcomes:

Outcomes:

1. Student will able to understand the Location , physiography and Drainage pattern of Maharashtra.
2. To understand the climate of Maharashtra and climatic region of Maharashtra.
3. To know about the Drought prone area and Flood area of Maharashtra

Unit No.	Topic	Sub Topics	Credits	No. of Lectures
1	Physical settings	1.1 Location 1.2 Physiography 1.3 Rock structure 1.4 Drainage Pattern	1	15
2	Climate	2.1 Season- Rainy, Summer, Winter 2.2 Climatic Region of Maharashtra 2.3 Drought Prone Area – Problems and Management 2.4 Flood Area - Problems and Management	1	15

Reference Books:

1. Geography of Maharashtra Prof. C.D. Deshpande.
2. Geography of Maharashtra – Prof. A.B. Savadi.
3. Geography of Maharashtra – B. Arunachalam
4. Maharashtra – 2006- Santosh Dastane.
5. Physical Geography of Maharashtra- P.R. Torawane, Dr. S.C. Ahire
6. Maharashtra in maps – Dr. K.R.Dixit
7. Geography of India - Majid Husain Oxford School Atlas - Oxford
8. Environmental Geography : Savindra Singh, Prayag Pustak Bhawan, Allahabad-211002

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B.Sc. Part-I Geography Semester-I
OE – I (2)

Practical Subject – Cartographic Techniques-I

Objectives:

- To introduce the concepts of Map
- To introduce the concepts of Map scale
- To acquaint students with basic cartographic techniques in geography.

Outcomes:

- Student will understand various cartographic techniques and its importance.
- Student will understand the concepts of Map
- Student will understand the concepts of Map scale

Unit No	Topic	Sub Topic	Hours
Unit No I	Introduction to Map	1.1 Definition of Map 1.2 Elements and Types of Map 1.3 Maps and Globe – Similarities and Differences, 1.4 Significance and Uses of Maps and Globes.	30
Unit No II	Map Scale	2.1 Meaning and Definition of Map Scale 2.2 Methods of Representation of Map Scale: i) Verbal ii) Numerical iii) Graphical, Scale 2.3 Conversion of Map Scale: i) Verbal to Numerical ii) Numerical to Verbal 2.4 Construction of Graphical Scale: i) Simple (Plane Scale): ii) Time and Distance Scale: iii) Diagonal Scale	30

Reference Books

1. Buoygoot, J. (1964), An Introduction to Map work and Practical Geography University Tutorial, London.
2. Monkhouse, F. J. and Wilkinson, H. R. (1971), Maps and Diagrams. Methuen, London.
3. Raisz, E. (1962), Principals of Cartography, McGraw Hill Book Com., Inc, New York.
4. Robinson, A.H. and Shale, R. D. (1969), Elements of Cartography. John Wiley and Sons, Inc, New York.

5. Singh, L.R. and Singh, R., (1973), Mapwork and Practical Geography. Allahabad.
- Curran, P. (1989), Principles of Remote Sensing, Logman, London.
6. Lo C. P. and Young A. K. W., (2011), Concepts and Techniques of Geographic Information Systems, PHI Learning Private Lim., New Delhi – 110001.
7. Dickinson, G.C., (1979), Maps and Air Photographs, Arnold Publisher, New Delhi.
8. Mishra, R.P and Ramesh A., (2000), Fundamentals of Cartography. Concept Publ. Com., New Delhi.
9. Burrough, P. A. and McDonell, R., (1998), Principles of Geographical Information Systems, Oxford University Press, Oxford.

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B.Sc. Part-I Geography Semester-I
SEC –I (2) Introduction to GIS

Objectives:

1. To make aware the student about the knowledge of GIS.
2. To make conscious the student about the historical background of GIS.
3. To familiarize the student about components of GIS.

Course Outcomes:

After the completion of course, the student will have ability to:

1. The student learns about the GIS.
2. The Students were familiar the knowledge about Components of GIS.

SYLLABUS

Unit No	Topic	Sub Topic	Credits	No. of Lectures
I	Introduction to GIS	1.1 Definition & Concept of GIS 1.2 Historical Background of GIS 1.3 Scope of GIS 1.4 Advantages and Dis Advantages of GIS	1	15
II	Components of GIS	2.1 Components of GIS 2.2 Raster data –Concept &Types 2.3 Vector Data Concept Types 2.4 Application of GIS in Geography	1	15

REFERENCES

1. Ian, Haywood & others (2006): Geographical Information System, Pearson Education, Inc., Delhi.
2. Jamwal, Anil K. (2008): Geographical Information System, JnanadaPrakashan, New Delhi.
3. Tomlin, Dana C. 1990. GIS and Cartographic Modeling. New Jersey: Prentice Hall.
4. Tukey, John W. 1972. “Some Graphic and Semigraphic Displays.” In Statistical Papers in Honor of George w. Snedecor, edited by T. A. Bancroft, 293–316. August 1969.
5. Heywood I, Cornelius S, Carver S (2006). An Introduction to Geographical Information Systems (3rd ed.). Essex, England: Prentice Hall.

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B.Sc. Part-I Geography Semester-II
OE – II (2)

Subject – Human Geography

Objectives:

- To introduce the latest concepts in Human Geography, specifically in human race, human culture and tribes.

Outcomes:

- Students will get basic ideas of Human Geography.
- Students will identify and analyze how geographical factors effect on human activities and their characteristics.

Unit No	Topic	Sub Topic	Hours
Unit No I	Introduction to Human Geography	1.1 Meaning & Definition of Human Geography. 1.2 Nature & Scope, of Human Geography. 1.3 branches of Human Geography. 1.4 Importance of Human geography	15
Unit No II	Human Races and Tribes	2.1 Race- Concept & basis of Basis of racial classification 2.2 Racial classification of Griffith Taylor 2.3 Major tribes in the world- Eskimo, Bushmen & Naga. 2.4 Importance’s Introduction to Races.	15

References:

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Singh, R.Y. : Geography of Settlement, 1998
5. Chandana R.C. 1988: Geography of Population, Kalyani Pub. Ludhayana
6. Hussin M. : Human Geography 1994
7. Money D.S. : Human Geography
8. Perpillou A.V. : Human Geography, Longman, London- 1986
9. Robinson H. : Human Geography, 1976

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B.Sc. Part-I Geography Semester-II
OE – II (2)

Practical Subject – Cartographic Techniques-II

Objectives:

- To introduce the concepts of landform analysis
- To acquaint students to learn and apply basic and advance cartographic techniques
- To acquaint students to learn and apply basic computer skills

Outcomes:

- Student will understand the use of landform analysis in cartography.
- Student will understand the application of basic and advance cartographic techniques
- Student will enable the use of statistical data in cartography.

Unit No	Topic	Sub Topic	Hours
Unit No I	Landform analysis techniques	1.1 Concept of Contours and Drawing of Cross Section to Depict Contour Landforms i) Mountain ii) Plateau iii) Conical Hill iv) V Shaped Valley v) Pass vi) Waterfall vii) Sea Cliff viii) Convex Slope ix) Concave Slope x) Uneven Slope xi) Terraced Slope 1.2 Methods of Expression of Slopes by Gradient Degree, Percentage, Miles	30
Unit No II	Representation of Statistical Data by use of Computer	2.1 Line Simple Graph 2.2 Bar Graph 2.3 Compound Bar Graph 2.4 Pie Chart	30

Reference Books

1. Buoygoot, J. (1964), An Introduction to Map work and Practical Geography. University Tutorial, London.
2. Monkose, F. J. and Wilkinson, H. R. (1971), Maps and Diagrams. Mathuen, London.
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5. Singh, L.R. and Singh, R., (1973), Mapwork and Practical Geography. Allahabad.
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(Autonomous)
B.Sc. Part-I Geography Semester-II
SEC -II (2)- Introduction to GPS

Objectives:

1. To make aware the student about the knowledge of GPS.
2. To make conscious the student about the historical background of GPS.
3. To familiarize the student about components of GPS.

Course Outcomes:

After the completion of course, the student will have ability to:

3. The student learns about the GPS.
4. The Students were familiar the knowledge about Components of GPS.

Unit No	Topic	Sub Topic	Hours
Unit No I	Introduction to GPS	1.1 Definition & Concept of GPS 1.2 Historical Background of GPS 1.3 Scope of GPS 1.4 Advantages and Dis Advantages	15
Unit No II	Components & of GPS	2.1 Components & of GPS 2.2 Types of GPS 2.3 Concept of Trilateration 2.4 Application of GPS in Geography	15

REFERENCES

1. Bar-Sever, Y., A new Massachusetts model for GPS yaw attitude, Journal of Geodesy, 70, 714723, 1996.
2. Blewitt, G., An automatic editing algorithm for GPS data, Geophysical Research Letters, v.17,n.3,pp.199-202,1990.
3. Parkinson; Spilker (1996). The global positioning system. American Institute of Aeronautics and Astronautics. ISBN 978-1-56347-106-3.
4. Jaizki Mendizabal; Roc Berenguer; Juan Melendez (2009). GPS and Galileo. McGraw Hill. ISBN 978-0-07-159869-9.
5. Global Positioning System". Gps.gov. Archived from the original on July 30, 2010. Retrieved June 26, 2010.