Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

College Name :- Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya, Jalgaon

Title of Course :- Certificate course in Geoinformatics

Co-ordinator :- Prof. R. P. More

Course Objectives: -

- 1. To acquaint the students with new concepts and approaches in Geography.
- 2. To familiarize the students with the wide application fields in Geography.
- 3. Understanding the basics of computer and Geoinformatics.
- 4. Learning cartography techniques and map projection system.

Duration of the Course: 30 Hours

Fees Structure:

100/- Rs.

Intake Capacity:

15

Course Structure:

Course Title: - Certificate course in Geoinformatics

Eligibility Criteria: - N.A

Skeleton of Course:

Sr.	Name of Subject	Theory/ Practical	Teaching Hours	Maximum Marks			Passing		
No				Theory	Practical	Total	Theory	Practical	Total
1	Geoinformatics	Theory	30	60	40	100	24	16	40

Minimum Staff: 02

Mode of Examination: After completion of course

Course Outcomes:-

- 1. Comprehend fundamental concepts and practices of Geographic Information Systems (GIS) and advances in Geospatial Information Science and Technology.
- 2. Give examples of interdisciplinary applications of Geospatial Information Science and Technology.
- 3. Apply GIS analysis to address geospatial problems and/or research questions.
- 4. Demonstrate proficiency in the use of GIS tools to create maps that are fit-for-purpose and effectively convey the information they are intended to.

Sylllabus

Title of the Paper - Geoinformatics

Total Marks: 100

Sr. No	Topic	Sub-Topic		
1	Introduction to Geoinformatics	Definition of Geoinformatics Scope and Importance of Geoinformatics History of GIS Components of GIS Functions of GIS:GIS tasks-Input, Manipulation, Management, Query analysis, Visualization	05	
2	Sources and types of GIS data & Application of Geoinformatics	Toposheets, Surveying, Aerial photographs, Satellite data and images Data types-Spatial and Non spatial Raster data and their characteristics Vector data and their characteristics Application of Geoinformatics	05	
3	GIS data editing And attribute data linking	Topology building topological errors. Locational errors. 3.edge matching Attribute data linking	05	
4	Spatial and non-spatial data analysis	Query analysis-Spatial Non spatial :- i) Spatiotemporal ii) dissolve iii) Overlay analysis merge iv) buffer analysis.	05	
5	Practical	TIN Spatial analysis, Multicriteria analysis, Overlay analysis, Topographic analysis (DEM and DTM)	10	

Suggested Books:

- 1) Clarke, Keith C. (1999) Getting Started with Geographic Information Systems, Prentice Hall, New Jersey
- 2) Star J, and J. Estes, (1994), Geographic Information Systems: An Introduction, Prentice Hall, New Jersey.
- 3) Williams J. (1995): Geographic information from space, John Wiley and Sons, England,
- 4) Online Learning CCRS Canada Centre for Remote Sensing http://landmap.mimas.ac.uk/ipc/ccrs/fundam_e.html NASA Remote Sensing Tutorial http://rst.gsfc.nasa.gov

Co-Wandow