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