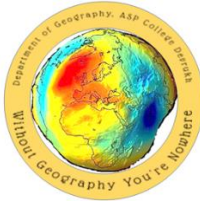




**FIRST-YEAR OF MASTER OF ARTS
MAJOR GEOGRAPHY REVISED SYLLABUS
ACCORDING TO CBCS NEP2020**

**COURSE TITLE: COURSE TITLE: TOOLS AND TECHNIQUES IN
SPATIAL ANALYSIS-I
SEMESTER-I, W.E.F. 2023-2024**



**RECOMMENDED BY THE BOARD OF STUDIES IN GEOGRAPHY
AND**

**APPROVED BY THE ACADEMIC COUNCIL
Devrukh Shikshan Prasarak Mandal's**

**Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal. Sangmeshwar, Dist. Ratnagiri-415804, Maharashtra, India**

Academic Council Item No: 03

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Master of Arts
Name of the Department	:	Geography
Name of the Class	:	First Year
Semester	:	First
No. of Credits	:	02
Title of the Course	:	Tools and Techniques in Spatial Analysis-I
Course Code	:	A504GEP
Name of the Vertical in adherence to NEP 2020	:	Major
Eligibility for Admission	:	UG Degree in Geography
Passing Marks	:	40%
Mode of Assessment	:	Summative
Level	:	PG
Pattern of Marks Distribution for TE and CIA	:	NA
Status	:	NEP-CBCS
To be implemented from the Academic Year	:	2023-2024
Ordinances/Regulations(if any)	:	

Syllabus for First Year of Master of Arts in Geography

(With effect from the academic year 2023-2024)

SEMESTER-I

Paper No.-IV

Course Title: Tools and Techniques in Spatial Analysis-I **No. of Credits - 02**

Type of Vertical: Major

COURSE CODE: A504GEP

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to...

Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Techniques of Geomorphic and Climatic Analysis
CLO-02	Understand	Techniques of Geomorphic and Climatic Analysis
CLO-03	Apply	Global Mapper Software for Slope Analysis
CLO-04	Analyse	Altimetry and slope using contours.
CLO-05	Evaluate	Traditional and modern methods of Slope Analysis
CLO-06	Create	Graphs, diagrams and maps using climatic and geomorphic data.

Syllabus for First Year of Master of Arts in Geography
(With effect from the academic year 2023-2024)

SEMESTER-I

Paper No.–IV

Course Title: Tools and Techniques in Spatial Analysis-I **No. of Credits - 02**

Type of Vertical: Major

COURSE CODE: A504GEP

1. Techniques of Geomorphic Analysis

A. Drawing Profiles:

- i. Longitudinal
- ii. Composite and Projected
- iii. Profiles using Global Mapper Software

B. Methods of Slope Analysis:

- i. Wentworth's method of average slope determination
- ii. Robison's method of slope analysis'
- iii. G. H. Smith's method of slope analysis
- iv. Slope analysis using Global Mapper Software

C. Altimetry Analysis:

- i. Ring contour method
- ii. Highest grid-cell elevation method
- iii. Contour Generation using Global Mapper Software

2. Techniques of Climatic Data Analysis (20 hours)

1. Rainfall dispersion diagrams
2. Wind roses
3. Water surplus-deficiency graphs
4. Climograph
5. Hyther graph,
6. Taylor's climograph
7. Index of aridity and index of moisture
8. Isopleth Maps
9. Water budget and its graphical analysis.
10. Erogographs (**Crop Calendar**)

Required Previous Knowledge

No previous Knowledge is necessary to learn the course.

Access to the Course

The course is available for all the students admitted for Master of Arts.

Methods of Assessment:

Vocational skill Courses, Skill Enhancement Courses and courses having laboratory sessions shall be assessed at the end of each semester.

Grading Scale

The grading scale used is O to F. Grade O is the highest passing grade on the grading scale, and grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

References:

1. King, C. A. M. (1978): Techniques in Geomorphology, Edward Arnold, London.
2. Miller, A.A. (1966): The Skin of the Earth, Methuen, London.
3. Monkhouse, F.J. and Wilkinson, H.R. (1971): Maps and Diagrams, Methuen, London.
4. Cole, J.R and King, C.A.M. (1968): Quantitative Geography, John Wiley And Sons, London.
5. Goudie, A. (1981): Geomorphological Techniques, George Alien And Unwin, London.
6. Hammond, R. And McCullagh, P.S. (1974): Quantitative Techniques in Geography: An Introduction, Oxford University Press, London.
7. Mahmood Aslam (1977): Statistical Methods in Geographical Studies, Rajesh Publication, New Delhi.
8. Singh, Gopal (2001): Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd.
9. Singh, L.R. (2011): Fundamentals of Practical Geography, Sharda Pustak Bhavan, Allahabad.
10. Singh, R.L. and Singh, R. B. (2004): Elements of Practical Geography, Kalyani Publishers, New Delhi – Ludhiana.