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

## COURSE TITLE: INTRODUCTION TO GIS
## SEMESTER-II, 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 | : | Second |
| No. of Credits | : | 02 |
| Title of the Course | : | Introduction to GIS |
| Course Code | : | A515GET |
| Name of the Vertical in adherence to NEP 2020 | : | Major |
| Eligibility for Admission | : | Any Graduate in Geography |
| Passing Marks | : | 40% |
| Mode of Assessment | : | Formative and Summative |
| Level | : | PG |
| Pattern of Marks Distribution for TE and CIA | : | 60:40 |
| 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 II** **Paper No.–15**

**Course Title: Introduction to GIS** **No. of Credits - 02**

**Type of Vertical: Major Elective** **COURSE CODE:** A515GET

**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 | Remember Data inputs, data standards and attribute data linkages |
| CLO-02 | Understand | Understand data quality Issues |
| CLO-03 | Apply | Apply Spatial Analysis Techniques |
| CLO-04 | Analyse | Analyze GIS outputs |
| CLO-05 | Evaluate | Evaluate different spatial analysis techniques |
| CLO-06 | Create | Create a layout map. |

## Syllabus for First Year of Master of Arts in Geography

**(With effect from the academic year 2023-2024)**

**SEMESTER II** **Paper No.–15**

**Course Title: Introduction to GIS** **No. of Credits - 02**

**Type of Vertical: Major Elective** **COURSE CODE:** A515GET

| Module No. | Content | Credits | No. of Lectures |
|---|---|---|---|
| 1 | **GIS Database Creation**<br>o GIS: Concept, Components, and Applications<br>o Data Input<br>o Data Standards and Topological Concepts<br>o Attribute Data linkages and Data Conversion<br>o Data Quality Issues | 01 | 15 |
| 2 | **GIS Analysis**<br>o Spatial Analysis<br>o GIS Outputs<br>o GIS Layouts<br>o Project Design and Implementation | 01 | 15 |

**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:**

The assessment pattern would be 60:40, 60% for Semester End Examination (SEE) and 40 % for Continuous Internal Assessment (CIA). The structure of the SEE and CIA would be as recommended by the Board of Studies and approved by the Board of Examination and the Academic Council of the college.

**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.

## Reference Books:


1. Agrawal, N.K.(2006), Essentials of GPS (Second Edition), Book Selection Centre, Hyderabad
2. American Society of Photogrammetry (1983): Manual of Remote Sensing, ASP Palis Church, V.A.
3. Barrett, E.G. and Curtis, L.F. (1992): Fundamentals of Remote Sensing in Air Photo-interpretation, McMillan, New York. 7.
4. Bernhardsen, Tor (2002): Geographical Information Systems: An Introduction, Third Edition, John Wiley & Sons, Inc., New York.
5. Burrough, Peter A, and McDonnell, R.A. (1998): Principles of Geographical Information Systems, Oxford University Press, Mumbai.
6. Campbell. J. (1989): Introduction to Remote Sensing, Guilford, New York.
7. Clarke, Keith C. (1998): Getting Started with Geographic Information Systems, Prentice-Hall Series in Google. Info. Science, Prentice-Hall, Inc. N.J.
8. Curran, Paul, J, (1988): Principles of Remote Sensing, Longman, London.
9. Heywood, I.et al (2002): An Introduction to Geological Systems, Pearson Education Limited, New Delhi.
10. Iliffe, J.C (2006), Datums and Map Projections for Remote Sensing, GIS, and Surveying, Whittles Publishing, New York.
11. Jonson. R. J. (2003): Remote Sensing of the Environment-An Earth Resources Perspective, Pearson Education Series in Geographical Information Science, Keith C. Clarke (Series editor) Pearson Educators Private Limited. (Singapore), New Delhi.
12. Joseph, G. (2009): Fundamentals of Remote Sensing, Universities Press (India) Pvt. Ltd., Hyderabad.
13. Lillesand, Thomapson and Relph Kiffer (1994). Remote Sensing and Image Interpretations, John Wiley and Sons, Inc., New York.
14. Parker, R, N. (2008), GIS and Spatial Analysis for the Social Sciences, Routledge, New York.
15. Paul Longley (2005), Geographic Information Systems and Science, John Wiley & Sons.
16. Pickles, John (2006), The Social Implications of Geographic Information Systems, Rawat Publications, Jaipur.
17. Star, Jeffrey and John Estes (1996), Geographical Information Systems: An Introduction, Prentice-Hall, inc., N.J.
18. Shekar, S, and Chawla, S, (2009), Spatial Databases: A Tour, Pearson Education, Delhi.
19. Tempfli, T. K., Kerle, N., Huurememan, G.C., and Janssen, L.L.F (2009), Principles of Remote Sensing, ITC, Netherland