Telephone No: 2419208/2419315/2419219/2419361
Fax: 0821-2419363/2419301

e-mail : registrar@uni-mysore.ac.in
www.uni-mysore.ac.in

UNIVERSITY OF MYSORE

Established: 1916

Vishwavidyanilaya Karyasoudha,
Crawford Hall, Mysore-570 005.

No.AC.2(S)/785/2019-20

Dated: 12.07.2019.

NOTIFICATION

Sub: Revision of the entrance syllabus of Geographical Information System (PG) from the Academic Year 2019-20.

Ref: 1. Decision of Board of Studies in Geographical Information System (PG) meeting held on 13.12.2018.
2. Decision of the Faculty of Science & Technology Meeting held on 01.04.2019.
3. Decision of the Academic Council meeting held on 07.06.2019.

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The Board of Studies in Geographical Information System (PG) which met on 13.12.2018 has recommended to revise the entrance syllabus of M.Sc. in Geographical Information System from the Academic Year 2019-20.

The Faculty of Science and Technology and the Academic Council meetings held on 01.04.2019 and 07.06.2019 respectively have approved the above said proposal and the same is hereby notified.

The revised syllabus of M.Sc. in Geographical Information System course is annexed. The contents may be downloaded **from the University Website i.e., www.uni-mysore.ac.in**.

Draft approved by the Registrar

Lingaraju 15/7/19
Deputy Registrar (Academic),
Deputy Registrar (Academic)
University of Mysore
Mysore-570 005

To:

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Dean, Faculty of Science & Technology, DOS in Zoology, Manasagangotri, Mysore.
3. The Chairperson, BOS in Geographical Information System, DOS in Geographical Information System, Manasagangotri, Mysore.
4. The Chairperson, Department of Studies in Geographical Information System, Manasagangotri, Mysore.
5. The Director, College Development Council, Moulya Bhavan, Manasagangotri, Mysore.
6. The Deputy/Assistant Registrar/Superintendent, AB and EB, UOM, Mysore.
7. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation), UOM, Mysore.
8. Office file.

New Syllabus of Entrance Examination for 2019-20 and onwards
M.Sc - Geographical Information System (GIS),
CENTRE FOR GEOINFORMATICS TECHNOLOGY,
DOS in Geography, Manasagangothri Campus, University of Mysore, Mysuru

1. **Earth System Dynamics:** Formation of Earth, Layers of Earth, Layers of Atmosphere, components of Biosphere, Hydrosphere and its forms, Carbon Cycle, Nitrogen Cycle, Oxygen Cycle. Hydrogen Cycles, Ocean currents, Greenhouse effects, Ozone depletions, El-Nina, La-Nina, Weather forecasting, Climate change and its impacts on ecosystem.

2. **Physical Geography:** Field, Scope and importance; Distribution of land and water, Wagner's theory of continental drift, Plate tectonics, Movements of the earth's crust- Diastrophism; Folds and faults; volcanoes and Earth Quakes; Rocks; Soils; Mountains-Plateau, Plains.

3. **Cartography, Surveying and Mapping:** Definition, Scope and importance of Cartography; Color theory; Types of Maps; Coordinate Systems, Latitude/Longitudes and Projections. Surveying Techniques includes Plane table surveying; Radiation and Intersection; Prismatic compass surveying; Radiation and intersection; Chain surveying.

4. **Environmental Studies:** Definition, principles and scope of environmental science, Interaction of Environment and Ecology; Biodiversity conservation; Forests and Biomass in India, Habitat Diversity; Lakes Ecosystem; Energy Sources, Types of Pollution; Waste Management; Sanitation Problems, Legislations of Environment in India, Polices of Swachh Bharath Mission and Clean India.

5. **Computer Applications:** Basics of Computer; Generations; Types of Computer systems; Software and Hardware; CPU; Memory and Its types; Data and Information; MS Office; Database Management; Internet, Intranet; Types of Networks- LAN,MAN, WAN; Wireless Communications; Artificial Intelligence.

6. **Mathematics and Statistics:** Basic calculations, Number theory; Algebra; Geometry, Axioms and Postulates; Measurement units and unit conversions; Graph Theory and quadrants; Statistics- meaning, importance and limitations; data: primary and secondary; Sampling and its types; Standard Deviations; Distribution of Data; Regressions and Data Analysis.

7. **Geographical Information Systems:** Concepts, History of GI Science, Components and Importance of GIS, Spatial Data-Point, Line and Polygon; Non-Spatial Data and Attribute Management; Data Integration; Commercial and open source software's;

8. **Remote Sensing:** History, Definition, Concepts of Remote Sensing; Regions in electromagnetic spectrum, wavelength, frequency; Satellites and Orbits; Satellite Sensors; Types of Satellite; Aircraft and Unmanned Aerial Vehicles; Various satellites- KALPANA, INSAT and OCEANSAT.

9. **Indian Constitutions:** Meaning and Preamble of Constitutions; Assembly; Salient features of Indian constitutions; Fundamental Rights and Duties, Directive Principles of State Policy; Governor: Role and Position, CM and Council of ministers.

10. **General Aptitude and Reasoning:** critical reasoning, Inferences, strengthen or weaken the argument, Numerical computation, numerical estimation, numerical reasoning and data interpretation.