SCHOOL OF STUDIES IN EARTH SCIENCE

Programmes Offered:
1. M.Sc. Geology

Objectives of the Course:
The State of Madhya Pradesh in general and Bundelkhand and Chambal regions in particular, possess varieties of rock and mineral resources. A scientific and systematic exploration of available rocks and minerals requires a centre of higher learning engaged in teaching and research at postgraduate and higher levels. This region falls under semi-arid zone, where the surface water resources are depleting very fast. Hence, there is an immediate need of systematic exploration of groundwater for the future requirement of this essential commodity. It is with these aims and objectives that the School of Studies in Earth Science was established in the year 1991. Apart from providing job opportunities for young and aspiring students of the region, the School has opened an avenue of effective and viable interaction with national establishments and industries related with various aspects of Earth Science.

The School is currently engaged in active research in the fields of Petrology, Geochemistry, Mineral Exploration, Hydrogeology, Remote Sensing Geology, Geomorphology and Environmental Geology. The Major thrust areas for research are Precambrian Geology, Geoeexplorations and Environmental Studies in Base Metals, Coal, Chambal basin, Bundelkhand Granites, and Watershed Management and Planning.

1. M.Sc. Geology: (Two years / Four semesters)

Eligibility: B.Sc. with 50% marks. Preference will be given, with Geology as one subject in B.Sc.

Available Seats: OPEN = 20 NRI = 03

Mode of Selection: On the basis of the merit in Index based on the qualifying examinations.

Faculty:

Prof. U.C. Singh, Email: ucsingh@rediffmail.com
Dr. S.N. Mohapatra, Reader & Head Email: suraj64@yahoo.com

Course Structure:

I – Semester II – Semester III – Semester IV – Semester
Remote Sensing in Geology and Geomorphology Igneous Petrology Ore Geology and Mining Hydrogeology
Structural Geology and Tectonics Metamorphic & Sedimentary Petrology Special Paper - II
Mineralogy & Mineral Optics Palaeontology & Stratigraphy Indian Mineral Deposits and Mineral Economics
Crystallography Crystal Petrology Mineral Explorations & Mineral Beneficiation
Chemistry & Geochemistry Geotechnical Engineering & Environmental Geology Project oriented Special Paper - I
Remote Sensing, Geomorphology and Structural Petrology
Geology
Mineralogy, Crystallography & Surveying (Geological field work) Palaontology, Stratigraphy, Geotechn. Eng. & Env. Geology Geological Field Work

Special paper – I (any one of the following): Advanced Environmental Geoscience Part – I, Advanced Remote Sensing in Geosciences Part- I, Computer Applications in Geosciences - I

Special paper – II (any one of the following): Advanced Environmental Geoscience Part – II, Advanced Remote Sensing in Geoscience Part – II, Computer Applications in Geosciences Part – II.
2. M.Sc. Remote Sensing and GIS : (Two years / Four semesters)

Profile of the Course :

The remarkable developments in space borne remote sensing technology and its various applications during the last three decades have firmly established its immense potential for mapping and monitoring various natural resources and natural disasters. In the recent past, there has been tremendous development in the field of Remote Sensing data collection, analysis and utilization. The science of remote sensing is no more an art of map-making from satellite images. It is a form of information technology where real digital data are converted to information, which in turn aid to the knowledge base for sound decision making. Another significant development leading to wide use of remote sensing data has been the general advancement on computational capability. Image processing facilities, which were earlier restricted to selected major research establishments have now become widely available with the advent of microcomputers and low cost image processing equipments. The digital data handling led to the development of Geographic Information System followed by another innovation of Global Positioning System. Remote Sensing coupled with GIS and GPS techniques has dramatically enhanced human capability of resource exploration, mapping and monitoring on local as well as global scale. To cater the need of qualified and trained personals in the field of remote sensing, this university has started this course in 2002 under the UGC Innovative Programme. The course has been initiated for the innovative development of Remote Sensing and GIS programmes, integration of the technologies into geosciences, and a wide spectrum of research in this field. The course aims at developing multidimensional programmes of teaching and research in the field of Remote Sensing and GIS as this will be the first Centre in the State of Madhya Pradesh to impart such degree course.

Placement Opportunities :


Eligibility   : B.Sc./ BE / B.Tech. with 50% marks.
Seats     : Open = 20 Payment = 15 NRI = 04
Mode of Selection : On the basis of the merit in Index based on the qualifying examinations
Contact Person : Dr. S.N. Mohapatra, Co-ordinator Email : suraj64@yaho.com
Visiting Faculty : Dr. P.K. Jain Dr. Vineesha Singh Ms. Parmita Bose Ms. S. Devi
Mr. R Bharti Mr. Manish K Srivastava Mr. Vikram K. Ranga Mr. R. Singh

Course Structure :

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<tr>
<th>Course</th>
<th>I – Semester</th>
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<tr>
<td></td>
<td>Aerial Photogrammetry and Photography</td>
<td>Geographical Information System</td>
<td>Remote Sensing in Agriculture</td>
<td>Remote Sensing in Environmental Science</td>
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<td>Remote Sensing field work</td>
<td>Ground Truth</td>
<td>Remote Sensing field work (Ground Truth)</td>
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<td>GPS Survey</td>
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Fees for the course :

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<th>II Semester</th>
<th>III Semester</th>
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<tr>
<td>M.Sc. Geology</td>
<td>Rs.8115.00</td>
<td>Rs.4225.00</td>
<td>Rs.5575.00</td>
<td>Rs.4225.00</td>
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<td>M.Sc. Remote Sensing &amp; GIS</td>
<td>Rs. 21615.00</td>
<td>Rs.17725.00</td>
<td>Rs. 19075.00</td>
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Open Seat