

# **INFORMATION BROCHURE**

## **M. Sc. in Geoinformatics & Remote Sensing**

**SESSION 2009-2010**



### **DEPARTMENT OF GEOLOGY**

**Mohanlal Sukhadia University  
UDAIPUR (Rajasthan) India**





# M.Sc. IN GEOINFORMATICS AND REMOTE SENSING

(POST GRADUATE DEGREE IN GEOINFORMATICS & REMOTE SENSING)



## About the Course

Geoinformatics and Remote Sensing are relatively young scientific disciplines and are areas of emerging technologies which have witnessed phenomenal growth in the last two decades. In the recent past a tremendous growth has been observed in the field of Geoinformatics and Remote Sensing. Resulting that geosciences are now a days relying increasingly on digital space data acquired from remotely sensed images through satellites, analyzed by geographical information systems (GIS) and viewed on the computer screen or on paper. Geoinformatics is collaboration between computer science and the geosciences to solve complex scientific questions. Remote Sensing coupled with Geographical Information System (GIS) and Global Positioning System (GPS) has increased the human capabilities for resources exploration, mapping and monitoring on local and global scale. The course is not only going to provide job opportunities for the young students but also shall open avenues of effective and viable interaction with national establishments related to various aspects of earth sciences and remote sensing.

The course is aimed at developing science graduates in the field of Informatics of the Earth. The increasing applications of Geoinformatics and Remote Sensing have created a gap between the demand and supply of trained man power in this field. It is well known that the job opportunities for trained persons in the field of Geoinformatics and Remote Sensing are available in organizations like Space Application Centre (SAC), National Remote Sensing Agency (NRSA), Indian Space Research Organization (ISRO) and a lots of Government departments using the spatial data and its analysis. Besides huge employment opportunities are now opening in the in private sectors like BPO/IT segment. Geoinformatic professional can start his/her career as Project Manager, Sr. System Executive, System Analyst, Image Analyst, and GIS Programmer with specialization in Earth Science. As an entrepreneur, after obtaining the professional degree a candidate can start their own enterprise.

## Course Centre

The M.Sc. course in Geoinformatics and Remote Sensing will be Conducted and Managed by the Department of Geology, Mohanlal Sukhadia University, Udaipur. ([www.mlsu.org](http://www.mlsu.org)).

## About the Department

The Department of Geology is the oldest Post Graduate Department in the Science Faculty in the State of Rajasthan. It was established in June 1950 and has produced alumni that have rendered commendable service for the growth of Mineral Industry and Ground Water Resources. The Department has received COSIST and SAP programmes of the UGC. It is enriched with the qualified and experienced faculty members, field staff, desired equipments, laboratories and library. ([www.geolmlsu.org](http://www.geolmlsu.org)).

## M. Sc. Programme

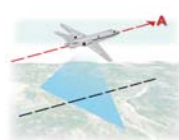
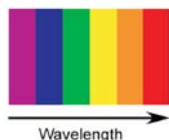
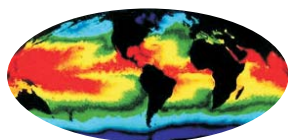
The Masters of Science in Geoinformatics & Remote Sensing will be of four semester duration to be conducted in two years.

## Admission Procedure

Admission for the M Sc course in Geoinformatics and Remote Sensing will be through Entrance Test to be conducted by the Department.

Application Forms along with the Information Material are available for sale during office hours by paying Rs 1000/- in cash or by sending demand draft for Rs 1050/- in favour of 'Course Director, Department of Geology' drawn at any bank in Udaipur. This will include the cost of Application Form and Entrance Test fee.

The candidate should send their Application Forms completed in all respect by hand or registered Post so as to reach this office on or before 5th June, 2009. The Application Form must accompany the attested photocopy of the qualifying examination. Incomplete application forms and not accompanied by requisite marks sheet or not delivered by the last date and time will be rejected.





## Scheme of Entrance Test

The Entrance Test for admission to M Sc Geoinformatics and Remote Sensing will be held at Department of Geology, 51 Saraswati Marg, Udaipur (Rajasthan).

The questions will be asked on Mental Ability, General Awareness, and Language Competence in English and on Everyday Science of B. Sc. / B.E / B.Tech. level (Science / Engineering graduate level).

Candidates will be required to mark their answers on OMR (Optically Marked Response Sheet) by marking the appropriate bubbles with the help of HB pencil.

## Eligibility

- Students with at least 50% marks in B.Sc. / B.E. / B.Tech. from recognized University/Institute. Candidates who have appeared in the qualifying examination and their results are awaited, may appear in the Entrance Test on their own risk. They must submit a copy of the mark sheet to the office before declaration of the result of the Entrance test. Candidates appearing for the supplementary examinations of the qualifying examinations will not be eligible for admission.
- The selection of students will be on merit basis through Entrance Examination, conducted at Udaipur. Merit will be prepared on the basis of marks obtained in the entrance exams.
- The Reservations of seats will be made in accordance with the statutory provisions made by the Mohanlal Sukhadia University.

## Seats

There are 25 seats for the course; out of these 20 seats will be normal including reserved seats for SC/ST/OBC & others and 5 seats will be payment seats (Minimum 20 candidates are required to be enrolled to run the course).

## Fees

The fee for normal seat will be Rs 15000/- per semester and university fee as applicable and for the payment seat will be Rs. 20,000/- per semester and university fee as applicable.

## Course Contents

There will be 4 theory papers + 1 practical in I, II & III semester. In IV semester the student will undertake Project Work related to the syllabus and submit the report for evaluation which will be followed by presentation and viva voce examination.

### Theory

#### Semester I

Paper I : Introduction to Information Technology

Paper II : Basics of Earth Sciences

Paper III : Fundamentals of Photo geology

Paper IV : Fundamentals of Remote Sensing

Practical

#### Semester II

Paper V : Digital Image Processing

Paper VI : GIS Spatial Analysis and Modeling

Paper VII : Global Positioning System & Geospatial Data Integration

Paper VIII : Surveying and Cartography

Practical

#### Semester III

Paper IX : Geospatial Techniques for Land Resources Management

Paper X : Geospatial Techniques for Natural Resources Management

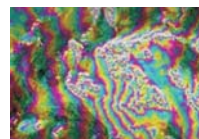
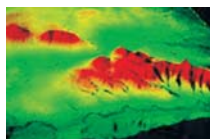
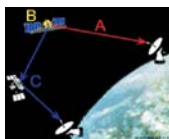
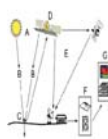
Paper XI : Geospatial Techniques for Natural Hazards and Disaster Management

Paper XII : Geospatial Techniques for Environmental Studies and Impact Assessment

### Practical

#### Semester IV

Paper XIII: Project Work & Presentation of Report



## Examination

- Each theory paper shall be of 100 marks (75 marks for written annual examination of 3 hrs duration and 25 marks for written mid term test of 2 hour duration).
- Each practical paper shall be of 100 marks (4 hrs duration).
- Two field training programs (7 to 10 days duration) are compulsory for the students. The training will be organized after the completion of I and III semester theory papers respectively.

**Note:** Field Training is compulsory and students not taking part in the Field Training shall not be allowed to appear in the Examination.

- After the completion of III semester a 3-4 months project work is to be undertaken by the student at laboratories/institutes/organizations of repute in India and subsequently a project report thereon is to be submitted by the student for evaluation by external examiner. The project work will be of 500 marks (out of which 400 marks will be allotted for evaluation of the report by external examiner and 100 marks for presentation and viva voce to be evaluated by the external and internal examiners.

## Faculty Support

### In-house Faculty

- Faculty Members of the Department of Geology
- Faculty Members of the Department of Information Technology
- Faculty Members of the Department of Environmental Sciences
- Faculty Members of the Department of Geography
- Faculty Members of the Department of Computer Science

### Guest Faculty

- Faculty from ISRO, Ahmedabad
- Faculty from MNIT, Jaipur
- Faculty from State Remote Sensing Department, Jodhpur

- Faculty from M. S. University of Baroda
- Faculty from Agriculture University
- Faculty from Forest Departments

## Hostel facilities

Hostel facilities both for boys and girls are available in the University hostels. Interested candidates have to fill separate applications for admissions in the hostels.

## Placement and Training Support

A specially created placement cell will look after the placement of the students for their projects and jobs.

## CORRESPONDENCE

**Dr. Harsh Bhu**

**Course Director**

Department of Geology

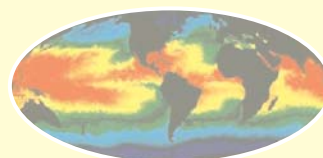
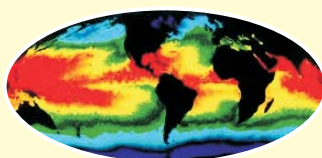
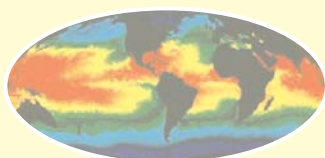
51 Saraswati Marg, Mohanlal Sukhadia University

Udaipur – 313 001 (Rajasthan)

Tel: 0294-2418125 (O), 9414166833 (M)

## Important Dates

- Last Date for Submission of Form:** 5<sup>th</sup> June, 2009
- Entrance Test:** Sunday 21<sup>st</sup> June, 2009
- Time:** 11:30 AM to 1:30 PM
- Venue of Entrance Test:** Department of Geology, 51, Saraswati Marg, Mohanlal Sukhadia University, Udaipur.
- The admissions forms completed in all respects should be submitted in an envelop marked 'M.Sc. Geoinformatics and Remote Sensing' in the office of the Head, Department of Geology, 51 Saraswati Marg, Mohanlal Sukhadia University, Udaipur 313 002 latest by 5<sup>th</sup> June, 2009.







**MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR**  
**M.Sc. in Geoinformatics and Remote Sensing 2009**  
**HALL TICKET**



Roll No. : \_\_\_\_\_  
(To be allotted by the office)

Name of Candidate Mr/Ms : \_\_\_\_\_

Father's Name : \_\_\_\_\_

Date : JUNE 21, 2009

Day : SUNDAY

Duration : 11:30 AM to 1:30 PM

Affix Latest  
Passport Size  
Photograph  
attested by  
the Principal or  
Gazetted Officer

TEST CENTRE

DEPARTMENT OF GEOLOGY  
51, Saraswati Marg, UDAIPUR

.....  
Full Signature of the Candidate  
(In Exam. Hall)

.....  
Centre Superintendent

.....  
Signature of Invigilator



**MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR**  
**M.Sc. in Geoinformatics and Remote Sensing 2009**  
**ADMISSION CARD**

(Candidate's Copy)



Roll No. : \_\_\_\_\_  
(To be allotted by the office)

Name of Candidate Mr/Ms : \_\_\_\_\_

Father's Name : \_\_\_\_\_

Date : JUNE 21, 2009

Day : SUNDAY

Duration : 11:30 AM to 1:30 PM

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Passport Size  
Photograph  
attested by  
the Principal or  
Gazetted Officer

TEST CENTRE

DEPARTMENT OF GEOLOGY  
51, Saraswati Marg, UDAIPUR

.....  
Head / Course Director

.....  
Full Signature of the Candidate  
(while applying)

**Mohanlal Sukhadia University, Udaipur**  
**DEPARTMENT OF GEOLOGY**  
**ADMISSION NOTICE**



**M. Sc. in Geoinformatics and Remote Sensing**  
**Two Years Post Graduate Degree Course**

Applications are invited for admission in M.Sc. course in Geoinformatics & Remote Sensing for the session 2009-2010.

**NUMBER OF SEATS:** 25 (out of which 5 are payment seats) including seats for SC (16%), ST (12%), OBC (21%) and others as per the university rules.

**ELIGIBILITY:** Graduate in Science (B.Sc) or Engineering (B.E./B.Tech) with minimum 50% marks will be eligible for admission. Students appearing in the qualifying examinations can also apply.

**ENTRANCE TEST:** The admission will be made through an entrance test to be conducted on **21<sup>st</sup> June, 2009** from 11.30 A.M. to 1.30 P.M. at Department of Geology, 51 Saraswati Marg, Udaipur (Rajasthan).

**COURSE FEE:** Rs 15,000/- per semester+normal University fee will be taken for 20 seats and for the remaining 5 sponsored seats Rs 20,000/- per semester + normal university fee will be charged.

Application forms along with information booklet containing details of the eligibility, Entrance Test etc. can be obtained from the Course Director, Department of Geology, 51 Saraswati Marg, Udaipur from **20<sup>th</sup> April, 2009** during office hours (10.30 AM to 5.00 PM) by paying Rs 1000/- in cash (inclusive of Entrance Test fee) or by sending a Demand Draft for Rs 1050/- (Rs 500/- in cash or Rs 550/- by post for SC/ST candidates) in favour of Course Director, payable at Udaipur.

**LAST DATE:** The completed application forms should reach the office of the Head on or before **5<sup>th</sup> June, 2009** by 5.00 PM.

**NOTE:** Application forms downloaded from the University website ([www.mlsu.org](http://www.mlsu.org)) will also be accepted if accompanied by required fees.

<b>Prof. M.S. Sharma</b> <i>Chairman</i> Faculty of Science	<b>Prof. P. C. Avadich</b> <i>Head</i> Department of Geology	<b>Dr. Harsh Bhu</b> <i>Course Director</i> 94141 66833 (M)
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