

POST GRADUATE DEPARTMENT OF GEOPHYSICS BERHAMPUR UNIVERSITY BERHAMPUR -760007.ORISSA

The M.Sc Geophysics course has been started in the self financing mode in Berhampur University under the auspices of Ocean Atmospheric Science and Technology Cell (OASTC), Ministry of Earth Sciences (MoES), Government of India during the session 2009-10. It signifies the vision of successive Vice-chancellors of the University to initiate new courses to provide trained manpower to cater to the needs of the Nation. Keeping in view the immediate need of trained manpower in the field of Earth Sciences, in general, and Geophysics, in particular, the course was opened in the Berhampur University. This is the only university in the state to offer M. Sc in Geophysics. Besides catering to the need of the nation, the students of Geophysics shall contribute immensely to study and explore the geophysical resources of the state of Odisha. Odisha is a coastal state with 480 km long coastline and is bestowed with bountiful coastal resources as well as mineral resources. Exploring these resources in a meaningful way and its proper utilization can be achieved with the help of the Department of Geophysics.

Course Curriculum

| Course | Duration | Intake | Eligibility |
|------------------------|-----------------|---------------|---|
| M.Sc. (Geophysics) | 2 years | 16 | B.Sc. with Physics & Chemistry/Mathematics/Geology/Electronic Science |

Faculty and Staff:

1. Prof. A S N Murty, Research Coordinator, OASTC.
2. Prof. P K Mohanty, Course Coordinator, Geophysics
3. Dr. D K Sahu, Part- time Lecturer in Geophysics
4. Mr. A A Pattnayak, Demonstrator in Geophysics
5. Mr. J N Tripathy, Project Asst. OASTC
6. Mr. S K Panigrahy, Lab. Attendant, OASTC.

Guest Faculty:

Eminent faculties from Andhra University, Geological Survey of India (Geophysical Division), Oil and Natural Gas Commission(ONGC), IIT- Khargpur, IIT- Roorkee, Utkal University and from reputed Engineering Colleges of the state.

JOB OPPORTUNITIES:

The job opportunities in Geophysics are extremely well in India in Private and Public Sector organizations like Oil and Natural Gas Corporation (ONGC), Hindustan Petroleum Corporation, Indian Oil Corporation, Bharat Petroleum, Reliance Industries Limited (RIL) etc. and some Central Govt. research organizations such as National Geophysical Research Institute (NGRI),Hyderabad, Geological Survey of India(GSI), National Institute of Oceanography(NIO), INCOIS, Ground Water Departments of state and central Government, CSIR & DRDO Laboratories etc. The opportunities are also available for pursuing higher studies i.e Doctoral and Post Doctoral research in India and Abroad.

SYLLABUS: M.Sc. Geophysics

| Semester – I | | | | |
|---------------------|--------------------------------|--------------|----------|-------------|
| Theory | | | | |
| Code | Subject | Semester End | Internal | Total marks |
| Gp 101 | Geology | 60 | 15 | 75 |
| Gp 102 | Seismology | 60 | 15 | 75 |
| Gp 103 | Physics of the Earth | 60 | 15 | 75 |
| Gp 104 | Mathematics | 60 | 15 | 75 |
| | | | | |
| Practicals | | | | |
| Gp 105 | Practicals on Papers 101 & 102 | 100 | | 100 |
| Total | | | | 400 |

| Semester – II | | | | |
|----------------------|---------|--------------|----------|-------------|
| Theory | | | | |
| Code | Subject | Semester End | Internal | Total marks |

| | | | | |
|-------------------|--------------------------------------|-----|----|------------|
| Gp 201 | Gravity Methods | 60 | 15 | 75 |
| Gp 202 | Magnetic methods | 60 | 15 | 75 |
| Gp 203 | Computer Programming | 60 | 15 | 75 |
| Gp 204 | Signal processing & Inversion theory | 60 | 15 | 75 |
| Practicals | | | | |
| Gp 205 | Practicals on Paper 201 & 202 | 100 | | 100 |
| Gp 206 | Practicals on Paper 203 & 204 | 100 | | 100 |
| Total | | | | 500 |

| Semester – III | | | | |
|-----------------------|---|--------------|----------|-------------|
| Theory | | | | |
| Code | Subject | Semester End | Internal | Total marks |
| Gp 301 | Petroleum Geology & Geophysics | 60 | 15 | 75 |
| Gp 302 | Seismic methods | 60 | 15 | 75 |
| Gp 303 | Electrical, electromagnetic & radiometric methods | 60 | 15 | 75 |
| Gp 304 | Remote Sensing and GIS | 60 | 15 | 75 |
| Practicals | | | | |
| Gp 305 | Practicals on Papers 301 & 302 | 100 | | 100 |
| Gp 306 | Practicals on papers 303 & 304 | 100 | | 100 |
| Total | | | | 500 |

| Semester – IV | | | | |
|----------------------|---|--------------|----------|-------------|
| Theory | | | | |
| Code | Subject | Semester End | Internal | Total marks |
| Gp 401 | Ground water & Environmental Geophysics | 60 | 15 | 75 |
| Gp 402 | Principles of Well logging & Reservoir analysis | 60 | 15 | 75 |
| Gp 403 | Mining Geophysics | 60 | 15 | 75 |
| Gp 404 | Plate tectonics & Geodynamical processes | 60 | 15 | 75 |
| Practicals | | | | |
| Gp 405 | Practicals on papers 401 & 402 | 100 | | 100 |
| Gp 406 | Practicals on papers 403 & 404 | 100 | | 100 |

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|---------------------------|-------------------------|----|--|------------|
| Gp 407 | Project Work | 50 | | 50 |
| Gp 408 | Comprehensive Viva-Voce | 50 | | 50 |
| Total | | | | 600 |
| GRAND TOTAL - 2000 | | | | |

CONTACT US:

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