# INSTITUTE OF ENVIRONMENTAL STUDIES
# KURUKSHETRA UNIVERSITY KURUKSHETRA

## INFORMATION ABOUT ACADEMIC DEPARTMENTS FOR WEB PORTAL

### Department Profiles

M.Sc. Environmental Science has been started as a professional course from the academic session 2006-2007. The M.Sc. programme provides professional skills to the students in the key areas of environmental science such as Environmental Management, Biodiversity Assessment and conservation, Pollution control and waste management, Environmental biotechnology, Ecological Economics, and environmental policy and planning so as to create career opportunities for the students in following sectors:

- Environmental policy and planning.
- Industry (Environmental impact Assessment, Sustainable resource management, waste management, environmental biotechnology).
- Government and Business Sector (Environmental Manager, Environmental consultant, Analysts).
- Universities and Research Institutes (Teaching and Research)

Director : Prof. Sharda R. Gupta

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### Faculty Information

Director - Prof. Sharda R. Gupta, M.Sc., Ph. D.

Professor - Visiting Faculty (Three)

Reader - Visiting Faculty (One)

Lecturer - Visiting Faculty (Four)
(Since August, 2006)

### Courses Offered

| Type of course (Postgraduate & others) | System of Examination |
|---|---|
| M.Sc. Environmental Science | Semester System |

**Profile of different courses offered**

| Degree Type | Course Duration | No of sanctioned seats | Scheme of Exam.(Annual/Semester) |
|---|---|---|---|
| M.Sc. Environmental Science | Two years | 25 | Semester System |

**Details of different Courses**

Course Name : M.Sc. Environmental Science
Course Type : Post graduation (Professional)
Exam Scheme : Semester System
Duration : Two years

**Semester-wise/Year-wise details**

**M.Sc.(Previous) Environmental Science (First Semester)**

| Paper Code | Paper Name | Paper Type | Max Marks |
|---|---|---|---|
| MES-101 | The Biophysical Environment | Compulsory | 75 |
| MES-102 | Environmental Chemistry | -do- | 75 |
| MES-103 | Ecology and Ecosystem Dynamics | -do- | 75 |
| MES-104 | Environmental Modelling and Statistics | -do- | 75 |
| MES-105 | Practical-I(Biophysical Environment and Environmental Chemistry) | -do- | 80 |
| MES-106 | Practical-II (Ecology, Environmental Modelling and Statistics | -do- | 80 |
| | Seminars | | 20 |
| | Term Paper | | 20 |

**M.Sc. (Previous) Environmental Science( Second Semester)**

| Paper Code | Paper Name | Paper Type | Max Marks |
|---|---|---|---|
| MES-107 | Natural Resource Management | Compulsory | 75 |
| MES-108 | Conservation and Biodiversity | -do- | 75 |
| MES-109 | Pollution and Global Climate Change | -do- | 75 |
| MES-110 | Environmental Methods and Analytical Techniques | -do- | 75 |
| MES-111 | Practical-III (Resources and Biodiversity) | -do- | 80 |
| MES-112 | Practical-IV (Environmental Pollution and Analytical Techniques) | -do- | 80 |
| | Seminars | | 20 |
| | Term Paper | | 20 |

**M.Sc. (Final) Environmental Science( Third Semester)**

| Paper Code | Paper Name | Paper Type | Max Marks |
|---|---|---|---|
| MES-113 | Environmental Biotechnology | Compulsory | 75 |
| MES-114 | Remote Sensing and Geographical Information Systems | -do- | 75 |
| MES-115 | Ecotoxicology and Environmental Health | -do- | 75 |
| MES-116 | Environmental Planning, Policy and Law | -do- | 75 |
| MES-117 | Practical-V (Environmental Biotechnology and GIS) | -do- | 80 |
| MES-118 | Practical-VI (Ecotoxicology) | -do- | 80 |
| | Seminar | | 20 |
| | Term Paper | | 20 |
| | Minor Project | | 60 |

**M.Sc. (Final) Environmental Science (Fourth Semester)**

| Paper Code | Paper Name | Paper Type | Max Marks |
|---|---|---|---|
| MES-119 | Agroecology and Agroforestry | Compulsory | 75 |
| MES-120 | Environmental Impact Assessment and Auditing | -do- | 75 |
| MES-121 | Ecotechnology and Ecological Restoration | -do- | 75 |
| MES-122 | Ecological Economics | -do- | 75 |
| MES-123 | Lab-VII (Agroecology, Impact Assessment, and Ecological Restoration) | -do- | 100 |
| | M.Sc. Dissertation | | Evaluation |
| | Seminar | | 20 |
| | Term Paper | | 20 |

**Facilities**

Library : Departmental library has books in emerging fields of Environmental Science and Ecology

Teaching Labs :
1. Ecology, Natural Resources and Biodiversity Conservation
2. Environmental Chemistry and Pollution Analysis
3. Computers and GIS
4. Environmental Biotechnology

Others facilities : Seminar room, field experimental facilities

## Placement Cell

Will be operational in near future during 4th semester

## Information on Seminar and Conferences

Seminar/Conferences organized by the Department (2006-07) :

Prof. Brij Gopal (Jawahar Lal Nehru University, New Delhi) delivered a lecture on "Wetland Management; and Restoration of River Yamuna flood-plane.

Prof. O.P. Toky (CCS Haryana Agricultural University, Hisar) delivered a lecture on "Conservation of Biodiversity of dry lands", and Shifting Agriculture dated 29 September 2006.

Prof. S.R. Gupta delivered a lecture on "Wetlands: Management and Conservation", on Wetland Day on 10 February, 2007 , at GuruNanak Khalsa College, YamunaNagar.

Prof. Nand Lal (Visiting fellow in the institute) delivered a lecture on "Ground Water Management" on, at GuruNanak Khalsa College, YamunaNagar.

## Information on Research Activities (Projects)

A short-term research project has been sponsored by the environment department, Government of Haryana, Chandigarh

| Topic Name | Incharge | Date From | Date To |
|---|---|---|---|
| Impact Assessment of land-We practices on Ecosystem Properties in Kalesar Forest | Prof. S.R. Gupta | 20.02.07 | 31.07.07 |

## Information on Achievement

### Organization of environmental awareness programmes

During the short duration of the initiation of the Institute of Environmental Studies, well equipped experimental laboratories, computer laboratory and seminar room and lecture rooms with modern facilities have been developed for the professional training of the students.

The various environmental awareness activities have been organized in the institute with the participation of interdisciplinary faculty and the M.Sc. students. The World Environment Day was celebrated on 5 June, 2006 to create environmental awareness for conserving biodiversity of dry lands, management of water resources, and promoting

plantations of indigenous trees and medicinal plants. On the international Ozone Day, a poster exhibition and seminar on the importance of protecting the ozone layer and conserving biodiversity was organized. The students of M.Sc. environmental science participated in seminars in emerging areas of environmental science. The students have visited Kalesar National Park, Hydroelectric Project, Effluent Treatment Plant, Herbal Garden, Wetland Ecosystems, Vermi-composing site and on site use of renewable Energy from Solar heaters and Biogas plant as part of the field training.