OFFICE OF THE REGISTRAR:: DIBRUGARH UNIVERSITY:DIBRUGARH

Ref. No: DU/DR-A/6-1/12/1338 Date: 14.12.2012.

NOTIFICATION

As recommended by the meeting of the Committee for Introduction of the Semester System in the General Degree Colleges, Dibrugarh University held on 20.09.2012 the 110th Meeting of the Under Graduate Board, Dibrugarh University held on 07.12.2012 vide Resolution No. (7) has approved the draft of the modified syllabus for the Environmental Studies Subject prescribed for all under graduate degree programmes giving effect from the **academic session 2013-2014.**

(B.C. Borah)
Deputy Registrar (Academic)
Dibrugarh University

Copy to:

1. The Vice-Chancellor, Dibrugarh University for favour of information.
2. The Registrar, Dibrugarh University for favour of information.
3. The Controller of Examinations, Dibrugarh University for favour of information and the needful. A copy of the Syllabus is enclosed herewith.
4. The Director, College Development Council, Dibrugarh University for favour of information.
5. The Principals/ Registrars/ Directors of the Colleges/ Departments/ Centres/ Institutes conducting the under graduate degree programmes for favour of information and the needful. They are requested to download the syllabus from the website **www.dibru.ac.in.**
6. The Dy. Controller of Examinations (A, B & C), Dibrugarh University for favour of information and needful. A copy of the Syllabus is enclosed herewith.
7. The System Administrator (Internet), Dibrugarh University for information and the needful.
8. File.

(B.C. Borah)
Deputy Registrar (Academic)
Dibrugarh University.

REVISED
DIBRUGARH UNIVERSITY SYLLABUS FOR ENVIRONMENTAL STUDIES FOR ALL UNDER GRADUATE DEGREE PROGRAMMES/ COURSES
(Approved by the 110th meeting of the Under Graduate Board held on 07.12.2012 w.e.f 2013-2014 academic session)

A. Vision

The importance of Environmental Studies cannot be disputed. The need for sustainable development is a key to the future of mankind. The degradation of our environment is linked to continuing problems of pollution, loss of forest, solid waste disposal, issues related to economic productivity and national as well as ecological security. The increasing levels of global warming, the depletion of the ozone layer and a serious loss of biodiversity have also made everyone aware of growing environmental concerns. The United Nations Conference on Environment and Development held in Rio De Janero in 1992, and the World Summit on Sustainable Development at Zoharbex in 2002 have drawn the attention of people around the globe to the developing condition of our environment. It is clear that no citizen of the earth can afford to be ignorant of environmental issues. Environmental management has become a part of the health care sector. Managing environmental hazards and preventing possible disasters has become an urgent need.

Human beings have been interested in ecology since the beginning of civilization. Even our ancient scriptures have included practices and values related with environmental conservation. It is now even more critical than ever before for mankind as a whole to have a clear understanding of environmental concerns and to follow sustainable development practices.

India is rich in biodiversity which provides various resources for people. It is also the basis for biotechnological development. Only about 1.8 million living organisms have been described and named globally. Still many more remain to be identified and described. Attempts are made to conserve them in ex-situ and in-situ situation. Intellectual Property Rights (IPRs) have become important in a biodiversity rich country like India to protect microbes, plants and animals that have useful genetic properties. Destruction of habitats, over use of energy resources and environmental pollution have been found to be responsible for the loss of a large number of life forms. It is feared that a large proportion of life on earth may get wiped out in the near future.

In spite of the developing status of the environment, the formal study of environment has so far not received adequate attention in our academic performances. Recognisation thus the Hon'ble Supreme Court directed the UGC to introduce a basic course on environment for every student. Accordingly the matter was considered by the UGC and it was decided that a six months compulsory core module course in environmental studies may be prepared and compulsorily implemented in all the Universities/ Colleges in India. The Expert Committee appointed by the UGC has looked into all the pertinent questions, issues and other relevant matters. This was followed by framing of the Core Module Syllabus for Environmental Studies for undergraduate courses of all branches of Higher Education. The Committee is deeply conscious that there are bound to be gaps between what is considered ideal and the present syllabus. The Committee has attempted to minimize the gaps by intellectual and material inputs.

The success of this course will however depend on the initiative and drive of the teachers and their students.

-Members of the Curriculum Development Committee

B. Rules for conducting the 'Environmental Studies' Course:

1. There shall be a compulsory Course (paper) on Environmental Studies to be offered in all Under Graduate Teaching Programmes of Dibrugarh University.

2. The End Semester/Term Examination on the Environmental Studies Course shall be held for 100 marks covering all units of the syllabus approved by the University.

3. The question pattern of the Environmental Studies Course shall be Multiple Choice Objective Type comprising of 50 questions carrying 2 marks each. The candidates shall have to with the answers in the response sheet provided by the University.

4. There shall be no internal assessment and the students need not prepare Field Study report on the course.

5. The End Semester/Term Examination of the Environmental Studies Course for all Under Graduate Teaching Programmes of Dibrugarh University shall be held on the same date as per schedule to be modified.

6. The duration of the examination of the Environmental Studies Course shall be of 90 minutes.

7. A candidate must secure at least 30 marks in order to pass in the Environmental Studies Course. The marks secured in the Course by a candidate shall be awarded in grades and that shall be shown in the Mark sheet / Grade sheet as below:

Marks secured by a Candidate	Grades	Performance
80 – 100 Marks	A	Excellent
60 – 79 Marks	B	Good
45 – 59 Marks	C	Average
30 – 44 Marks	D	Fair
Below 30 Marks	F	Fail

8. A candidate who fails in the Environmental Studies Course shall be entitled to two additional consecutive chances to clear the Course.

9. A candidate who does not pass in the Environmental Studies Course shall not be qualified for the relevant degree.

10. The marks/grades secured by the candidates in the Environmental Studies Course shall not be added to the grand total marks of other Subjects.

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C. Revised Syllabus of the Environmental Studies Course for all under Graduate Degree Programmes:

Course Code: ENVS

Total Marks: 100

Total Classes: 64

Unit 1 : The Multidisciplinary nature of environmental studies

Definition, scope and importance

Need for public awareness.

Classes : 4
Marks : 5

Unit 2 : Natural Resources :

Renewable and non-renewable resources:

- Natural resources and associated problems.

a) Forest Resources: Use and over-exploitation, deforestation. Timber extraction, mining, dams and their effects on forests and tribal people.

b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, and salinity.

e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.

f) Lance resources: Land as a resources, land degradation, man-induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

Classes : 10
Marks : 20

Unit 3: Ecosystems

- Concept of an ecosystem.
- Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristics features, structure and function of the following ecosystem:
  a. Forest ecosystem
  b. Grassland ecosystem
  c. Desert ecosystem
  d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Classes : 10
Marks : 17

Unit 4: Biodiversity and its conservation

- Introduction – Definition: genetic, species and ecosystem diversity.
- Biogeographically classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values
- Hot-spots of biodiversity – India.
- Threats to biodiversity: habits loss, poaching of wildlife, man-wildlife conflicts.
- Endangered and endemic species.
- Conservation of biodiversity: in-situ Ex-situ conservation of biodiversity.

Classes : 10
Marks : 16

Unit 5: Environmental Pollution

- Definition, Causes, effects and control measures of :
  a. Air pollution
  b. Water pollution
  c. Soil pollution
  d. Noise pollution
  e. Thermal pollution
  f. Nuclear hazards
- Solid waste Management: Causes, effects and control measures of urban and industrial wastes – biodegradable and non biodegradable wastes.
- Role of an individual in prevention of pollution.
- Disaster Management: Floods, earthquake, cyclone and landslides.

Classes : 10
Marks : 17

Unit 6: Social Issues and the Environment

- From Unsustainable to Sustainable development.
- Water conservation, rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns.
- Environmental ethics.
- Climate change, global warming, acid rain, ozone layer depletion, unclear accidents and holocaust.
- Wasteland reclamation.
- Consumerism and waste products.
- Environmental Legislation.
- Public awareness.

Classes : 10
Marks : 15

Unit 7: Human Population and the Environment

- Population growth, variation among nations.
- Population explosion – Family Welfare Programme.
- Environment and human health and hygiene (including Sanitation and HIV/AIDS) etc.
- Role of Information Technology in Environment and Human Health.

Classes : 10
Marks : 10

D: REFERENCES

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(M) Magazine (R) Reference (TB) Textbook

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