



Bharatiya Seva Sadan's
Smt. Radhadevi Goenka College for Women
NAAC Reaccredited Grade B+ with CGPA 2.71
Junior, Senior & Postgraduate Multi Disciplinary College
Affiliated to Sant Gadge Baba Amravati University, Amravati . (M.S.)
(Certified Minority Institution)

*1.3.3. Percentage of students undertaking project work / field work /
internship (Data for the Latest completed academic year)*
**Bachelor of Computer Application (B.C.A.) Field Work & Project Writing
Program Details, List of Students & Syllabus**
Session: 2020-21



Criterion I : Curriculum Aspects




Estd. 1965

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CERTIFICATE

This is to certify that the documents attached in Criterion I
Curricular Aspects are verified and found correct to the best of my
knowledge.


Dr. Devendra Vyas
Principal
PRINCIPAL
Smt. Radhadevi Goenka College
For Women, AKOLA.

Jr. College - Index 01.01.007 | UDISE - 27050117185 | College Code - 207

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Smt. Radhadevi Goenka College for Women, Akola

Aims, Goals, Objectives & Outcomes

Environmental Studies

Session: 2020-21

Introduction

Environmental Studies is a compulsory course for all UG Semester IV th year Students. The aim of environmental studies is to develop a world population that is aware of and concerned about the environment and its associated problems and which has the knowledge, Skills, attitudes, motivations and commitment to work individually and collectively towards solutions of current problems and prevention. Environmental education is concerned with those aspects of human behavior which are more directly related to man's interaction with bio-physical environment and his ability to understand this interaction. To create awareness among today's generation on pressing environmental problems, the University Grants Commission (UGC) has made it mandatory for the universities to introduce a course in environmental studies and teach students about the eco-system, pollution and problems concerned with the environment

Aims of Environmental Studies :

- **Learn how to use resources sustainably**
- **Create awareness about preserving the environment**
- **Participate in the mass movement to protect nature**
- **Foster a healthy learning environment**
- **Pursue a full-time career in environment studies**

To sum up the importance of introducing environment studies in course curriculum, the objectives are mainly to help students realize the significance of natural resources and learn to develop solutions to pressing environmental problems. The aim should be developing a world where every individual is aware of and concerned about environmental issues and work towards creating sustainable strategies for the current situation and preventing future problems.

Goals:

- To provide students with a broad interdisciplinary liberal arts framework for understanding the relationship between humans and their environment;
- To provide students with informed perspectives on biological and physical processes relevant to environmental problems, to help students understand responsible environmental policy and practice, and to engage students in ethical reflection regarding environmental problems in local, regional, national, and global communities;
- To prepare students for careers, citizenship and environmental stewardship through experiential curricular and co-curricular opportunities;
- To equip students with the knowledge and skills necessary to pursue professional careers and advanced study related to the multi-faceted nature of environmental studies.

Program Objectives

- Students will integrate knowledge from multiple disciplines representing physical and life sciences perspectives, political and economic perspectives, and social and cultural perspectives on humans' interactions with their environments;

Criterion I : Curriculum Aspects

- Students will contribute to and facilitate interdisciplinary research and problem solving, through independent and collaborative work; and
- Students will use quantitative and qualitative research tools and techniques to analyze, implement, envision, assess, and report sustainability efforts

Learning Outcomes

After completing the Environmental Studies, students will be able to:


- Articulate the interconnected and interdisciplinary nature of environmental studies;
- Gaining in-depth knowledge on natural processes that sustain life and govern economy.
- Demonstrate an integrative approach to environmental issues with a focus on sustainability;
- Developing critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
- Understand and evaluate the global scale of environmental problems; and
- Reflect critically on their roles, responsibilities, and identities as citizens, consumers and environmental actors in a complex, interconnected world.
- Predicting the consequences of human actions on the web of life, global economy and quality of human life.
- Acquiring values and attitudes towards understanding complex environmental economic-social challenges, and participating actively in solving current environmental problems and preventing the future ones.
- Adopting sustainability as a practice in life, society and industry


EVS Subject In-Charge

Dr. N. D. Chaudhari

Dr. A. J. Mutthe




Principal
Radhadevi Goenka College
For Women, AKOLA

Criterion I : Curriculum Aspects

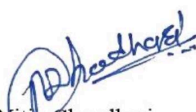



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Environmental Studies Submission Report 2020-21

Environmental Studies is a compulsory subject for all IInd year (Annual) & VIth Semester UG Program. The following Environmental Studies Course enrolled students have successfully completed their project writing report & submitted to the subject teacher.

Sr. No.	Name of the Course
1	B.A. II Semester IV
2	B.Com. II Semester IV
3	B.Sc. (Home Science) II Semester IV
4	B.B.A. II Semester IV
5	B.C.A. II Semester IV


Dr. Nitin Chaudhari
Asst. Prof. & Head
Department of Economics
Smt.R.D.G. College for Women,
Akola


Dr. Devendra Vyas
Principal
Radhadevi Goenka College
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Smt. Radhadevi Goenka College for Women, Akola
Environmental Studies
B.C.A II Sem. IVth
Session: 2020-21

List of Students

Sr. No.	Name Of the Students
1.	Jayshri Haridas Kale
2.	Kanchan Arun Idhokar
3.	Nabihakhan Sarosh Khan
4.	Namrata Narayan Gavhankar
5.	Nutan Sunil Taware
6.	Sakshi Sanjay Wankhade
7.	Sakshi Umesh Gawande
8.	Shreya Sunil Gawande
9.	Palak Mukesh Bagdia
10.	Pranjal Sanjay Bajaj
11.	Shreya Atul Bhuyar
12.	Shweta Surendra Dabhade
13.	Tanaya Sandip Fulzele
14.	Achal Arun Gawali
15.	Anushree Ashok Golde
16.	Perna Rajesh Karanjkar
17.	Vaishnavi Gajanan Nagre
18.	Komal Baburao Pophale
19.	Ruchika Sanjay Pagare
20.	Prerana Manikchand Sarode
21.	Chaitali Manik Wasnik
22.	Prachi Shriram Rathod


Asst. Prof. & Head
Department of Economics
Smt.R.D.G. College for Womens,
Akola


Principal
Radhadevi Goenka College
For Women, AKOLA

Sant Gadge Baba Amravati University, Amravati

Environmental Studies

B.C.A. IVth Sem.

Syllabus

27. ENVIRONMENTAL STUDIES

Total Marks : 100

PART-A

SHORT ANSWER PATTERN

25 Marks

1. The Multidisciplinary nature of environmental studies

- . Definition, scope and importance.
- . Need for public awareness.

(2 lecture hours)

2. Social Issues and the Environment

- . From Unsustainable to Sustainable development
- . Urban problems related to energy
- . Water conservation, rain water harvesting, watershed management
- . Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- . Environmental ethics : Issues and possible solutions.
- . Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- . Wasteland reclamation.
- . Consumerism and waste products.
- . Environment Protection Act.
- . Air (Prevention and Control of Pollution) Act.
- . Water (Prevention and Control of Pollution) Act.
- . Wildlife Protection Act.
- . Forest Conservation Act.
- . Issues involved in enforcement of environmental legislation.
- . Public awareness.

(7 lecture hours)

3. Human Population and the Environment

- . Population growth, variation among nations.
- . Population explosion - Family Welfare Programme.
- . Environment and human health.
- . Human Rights.
- . Value Education.
- . HIV / AIDS.
- . Women and Child Welfare.
- . Role of Information Technology in Environment and human health.
- . Case Studies.

(6 lecture hours)

PART-B

ESSAY TYPE WITH INBUILT CHOICE

50 Marks

4. Natural resources :

Renewable and non-renewable resources :

- . Natural resources and associated problems.
 - Forest resources : Use and over exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
 - Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
 - Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
 - Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer - pesticide problems, water logging, salinity, case studies.
 - Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources, Case studies.
 - Land resources : Land as a resource, 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.

(8 lecture hours)

5. 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, characteristic features, structure and function of the following ecosystem :-
 - Forest ecosystem
 - Grassland ecosystem
 - Desert ecosystem
 - Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lecture hours)

6. Biodiversity and its conservation

- . Introduction - Definition : genetic, species and ecosystem diversity.
 - . Biogeographical classification of India.
 - . Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values.
 - . Biodiversity at global, National and local levels.
 - . India as a mega-diversity nation.
 - . Hot-spots of biodiversity.
 - . Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts.
 - . Endangered and endemic species of India.
 - . Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.
- (8 lecture hours)

7. Environmental Pollution

- . Definition
 - . Causes, effects and control measures of :-
 - Air pollution
 - Water pollution
 - Soil pollution
 - Marine pollution
 - Noise pollution
 - Thermal pollution
 - Nuclear hazards
 - . Solid Waste Management : Causes, effects and control measures of
 - . Role of an individual in prevention of pollution.
 - . Pollution case studies.
 - . Disaster management : floods, earthquake, cyclone and landslides.
- (8 lecture hours)

PART-C

ESSAY ON FIELD WORK

25 Marks

8. Field work

- . Visit to a local area to document environmental assets - river / forest / grass land / hill / mountain
- . Visit to a local polluted site - Urban / Rural / Industrial / Agricultural
- . Study of common plants, insects, birds.
- . Study of simple ecosystems - pond, river, hill slopes, etc.

(5 lecture hours)

- (Notes :**
- i) Contents of the syllabys mentioned under paras 1 to 8 shall be for teaching for the examination based on Annual Pattern.
 - ii) Contents of the syllabys mentioned under paras 1 to 4 shall be for teaching to the Semester commencing first, and
 - iii) Contents of the syllabys mentioned under paras 5 to 8 shall be for teaching to the Semester commencing later.

LIST OF REFERENCES :-

- 1) Agarwal, K.C., 2001, Environmental Biology, Nidi Publ. Ltd., Bikaner.
- 2) Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad - 380 013, India, Email : mapin@icenet.net (R)
- 3) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p.
- 4) Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- 5) Cunningham, W.P.Cooper, T.H.Gorhani, E & Hepworth, M.T., 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p.
- 6) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- 7) Down to Earth, Centre for Science and Environment (R)
- 8) Gleick, H.P. 1993, Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press. 473p.
- 9) Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural Histroy Society, Mumbai (R)
- 10) Heywood, V.H. & Watson, R.T. 1995, Global Biodiversity Assessment, Cambridge Univ. Press 1140p
- 11) Jadhav, H & Bhosale, V.M. 1995, Environmental Protection and Laws, Himalaya Pub. House, Delhi. 284 p.
- 12) Mckinney, M.L. & Schoch, R.M. 1996, Environmental Science Systems & Solutions, Web Enhanced Edition. 639 p.
- 13) Mhaskar A.K., Matter Hazardous, Techno-Science Publications (TB)
- 14) Miller T.G. Jr., Environmental Science, Wadsworth Publishing Co. (TB)
- 15) Odum, E.P., 1971, Fundamentals of Ecology, W.B.Saunders Co., U.S.A., 574p.
- 16) Rao M.N. & Datta A.K., 1987, Waste Water Treatment, Oxford & IBH Publ. Co. Pvt. Ltd. 345 p.
- 17) Sharma B.K., 2001, Environmental Chemistry, Goel Publ. House, Meerut.
- 18) Survey of the Environment, The Hindu (M)
- 19) Townsend C., Harper J., and Michael Begon, Essentials of Ecology, Blackwell Science (TB)