

DEPARTMENT OF BOTANY

COURSE CURRICULUM & MARKING SCHEME

Certificate Course in Environment Studies

SESSION : 2023-24



ESTD: 1958

GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG, 491001 (C.G.)

(Former Name – Govt. Arts & Science College, Durg)

NAAC Accredited Grade A⁺, College with CPE - Phase III (UGC), STAR COLLEGE (DBT)

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**CERTIFICATE IN
ENVIRONMENTAL STUDIES
(CES)**



2023-2024

**Govt. V.Y.T. PG Autonomous
College, Durg (C.G.)**

CERTIFICATE IN ENVIRONMENTAL STUDIES(CES)

INTRODUCTION TO THE PROGRAMME

A basic knowledge of environment is today considered useful for all people. It would motivate them to understand the critical environmental concerns as well as enable them to cope with related developmental needs. The Certificate Programme in Environmental Studies reinforces this basic education need for integrating ecological values of development with curricular environmental education. Opportunities for acquiring this kind of knowledge are limited. The present programme aims at fostering environmental awareness and concern among the people in general and a better understanding of how environmental issues may be approached for initiating correctives

Government V.Y.T. PG Autonomous College can play a crucial role in providing education in the field of environmental studies.

Scheme of certificate in environmental studies (CES) Session 2020-2021 will be introduced from this session. The CES is offered by the Govt. V.Y.T. PG Autonomous College, Durg (C.G.) through the medium of both English and Hindi. The syllabi and scheme of examination are detailed below:

Minimum Duration: 6 Months

Maximum Duration: 2 Years

Eligibility: 10+2 from any recognized secondary education board of any state of India.

Medium of instruction

The Certificate in Environmental Studies Programme is offered by the, Govt. V.Y.T. PG Autonomous College, Durg (C.G.) in both Hindi and English medium. Likewise students can also do their Project Work in either Hindi or in English.

Maximum Age: 25 years.

Minor component of the evaluation system

Assignments: - Submission of assignments is compulsory. Assignments of a Course carry 30% weightage. Student will have to submit one assignments for each paper. Students will not be allowed to appear for the final examination for a CES, if they do not submit the assignment in time. If student do not get a passing marks in any assignments student have to submit it again.

Project - Every student has to do a Project which is carry 50 marks.

Major component of the evaluation system

Theory Paper:-Theory paper carries 70% weightage in the final result.

In case, student fail to secure a pass score (40% marks) in the final examination, student will be eligible to reappear in the next year final examination for CES.

EVALUATION

Evaluation consists of two parts: 1) assignments, 2) project and 3) final Examination. In the final result, assignment of a CES carries 30% weightage, While 70% weightage is given to final examination, Following is the scheme of awarding divisions and grades:

Division	Percentage Range	Grade
First	80 and above	A - Excellent
First	60 to 79.99	B- Very Good
Second	50 to 59.99	C - Good
Pass	40 to 49.99	D - Satisfactory
Unsuccessful	Below 40	E - Unsatisfactory

Students are required to score at least 40% marks in assignments as well as final examination separately. In the overall computation also, you must get at least 40% marks in each paper to claim the Certificate in CES.

Re-evaluation:-

There is provision for re-evaluation of final exam (theory) answer copies (anyone or two). The students can apply for re-evaluation of final exam (theory) answer copies against payment of Rs.250/- per theory paper.

1. There will be no ATKT.
2. Students will get Two chance to within two years from the date of Admission.

EVALUATION PATTERN

Theory Paper		
Paper-I	Ecology, environment and tourism	75 Marks
Paper-II	Human environment	75 Marks

Syllabus and Marking Scheme for CES.

Paper No.	Title of the Paper	Marks Allotted
		Theory
I	Ecology, environment and tourism	75
II	Human environment	75
III	Project	50
Total		200

Syllabus

Scheme of Certificate in Environmental Studies (CES) Session 2023-2024

PAPER- I

Ecology, environment and tourism

Max. Marks - 75

UNIT- 1 Environment - An Introduction and Conservation Ethics

Our Environment, Linkages in Nature, Biomes of the Worlds, Communities in Nature, Conservation through Ages, Environmental Parameters and Tourism, Indian Philosophy and Environment.

UNIT-2 Environmental Issues and Tourism Development

Environment and Development, Concepts of Development, Responsible Tourism – Benefits, Access, Infrastructure and Land Use - Basic Issues, Community and Regional Assets, Multiplier Effect: Benefits and Consequences.

UNIT-3 Tourism as a Tool for Conservation

Practice and Potential, Site and Locational Planning, Uneven Regional/National Planning, Alternatives.

UNIT- 4 Policy and Infrastructure, Pressures and Thresholds

Tourism Policy and its Impacts, Infrastructure, Environmental Degradation and Tourism, Acts and Laws, Politics and Environment, Identifying Pressures and Understanding Thresholds, Host/Local Population, Visitor Behaviour.

UNIT- 5 Environmental Impacts,

Vegetation and Wildlife, Mountain, Wetlands, Island and Beach, Sports - Adventure, Golf, Water, Hotels and Resorts.

References:

01. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
02. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad - 380 013, India, Email: mapin@icenet.net (R)
03. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
04. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
05. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
06. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
07. Down to Earth, Centre for Science and Environment (R)
08. Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473
09. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
10. Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
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Scheme of Certificate in Environmental Studies (CES)
Session 2023-2024

PAPER- II
Human environment

Max. Marks - 75

UNIT- 1 Environment

Introduction to Human Environment, Climate and Resources, Description of Ecosystems, Non-Living and Living Components of Environment, Social Environment and Population of Man.

UNIT- 2 Human Activities and Environment-I

Impact of Man on Environment, Effects of Over-exploitation of Biological Resources, Effects of Agriculture on Human Environment, Effects of Urbanisation.

UNIT- 3 Human Activities and Environment-II

Atmospheric Pollution, Water Pollution, Land Degradation, Hazardous Waste Chemicals.

UNIT- 4 Effects of Changed Environment on Man

Environment and Human Health, Social Implications of Development Projects, Economic Implications of Changed Environment.

UNIT- 5 Management of Environment-

Changes of Environmental Management, Development Environment, Environmental Conservation, Environmental Quality Management, Environmental Legislation. Social Awareness about Environment, Commonalities and Dissimilarities in Environmental Management.

References:

01. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
02. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
03. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
04. Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
05. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
06. Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
07. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
08. Survey of the Environment, The Hindu (M)
09. Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB) XI
10. Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Stadards, Vol I and II, Enviro Media (R)
11. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
12. Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philädelphia, USA 499p

Scheme of Certificate in Environmental Studies (CES)
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PROJECT

Max. Marks - 50

Every student has to do a Project which is carry 50 marks.


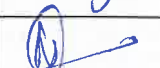








The student is provided with a Project Guide which has guidelines for doing the project. It has also a number of suggested project topics from which the student can choose anyone.

Some of the themes that student can choose from are given below:

01. Local environment - description of the specific features.
02. State of conservation - local environment.
03. Survey and assessment, in your locality, of the management of environmental issues / problems.
04. Possibilities of developing industries / tourism in your locality / region without harming the environment various models.
05. Developmental activities in your locality and region and their impact on the environment.
06. Assessment of the wastage of non-renewable resources e.g. Electrical, Water. Etc.
07. The infrastructural facilities needed for an access to the environmental resources of your locality / region.
08. Surveying the community's perception of its environmental resources.
09. Assessment of local media concern for environmental issues.
10. Surveying the visitor behaviour with regard to local / regional environment
11. Surveying the environmental protection measures adopted by the Industries, hotels. etc. in your town.
12. Assessment and possible solution of the degradation of the local environment due to small scale industry / factory / tourism.
13. An inventory of the local / regional flora and fauna.
14. Potential for the growth of tourism with specific reference to local / regional flora and fauna.
15. Study of the physical hydrology of your region / locality.

16. Creating awareness of Environmental Issues in your locality.
17. Effect of the local environment on public health.
18. Possibilities of interpreting the landscape of your locality.
19. Rules and regulations regarding protection of environment in your locality.

Name and Signatures of Members Board of Studies

S. No.	Category	Name of Nominated Members	Signature
1.	Chairperson	Dr. Ranjana Shrivastava	
2.	Members	1. Prof. Smt. Gayatri Pandey	
		2. Dr. G. S. Thakur	
		3. Dr. Shriram Kunjam	
		4. Dr. Satish Kumar Sen	
		5. Dr. Vijay Laxmi Naidu	
		6. Mr. Motiram Sahu	
		7. Dr. Rajeshwari Prabha Lahare	
3.	Subject specialist	1. Prof. P.C. Panda Retd. Professor Borsi Durg C.G.)	
		2. Dr. N.B. Singh (Govt. N.PG. Science College Raipur C.G.)	
4.	VC Nominated member	Dr. Aruna Shrivastava (Govt. D.B. Girls PG College Raipur C.G.)	
5.	Corporate/ Industrial area Representative	Shri Manish Jain (Apollo College, Durg C.G.)	
6.	Ex Meritorious Student PG	Ashwin Gautam	
7.	Subject expert from other Department	Dr. Divya Minz (Department of Zoology, Govt. V.Y.T. PG Autonomous College Durg C.G.)	