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BENGALURU CITY UNIVERSITY

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No: BCU/NEP/Digital Fluency/314/2021-22

Date: 29.12.2021.

NOTIFICATION

- Sub:- 1) Modified Environmental Studies Syllabus and
2) Modified Syllabus for Digital Fluency (Skill Enhancement Course) - for Under Graduate Programs of Bengaluru City University.

- Ref:- 1. University Regulations Governing CBCS Semester Scheme as per NEP-2020.
2. Email dated 22.12.2021 received from the Vice-Chairman, KSHEC.
3. Letter dated 24.12.2021 of the Chairperson, BoS in Environmental Science
4. Email dated 27.12.2021 along with the Digital Fluency Syllabus received from the Chairman, BoS in Computer Science.
5. Resolution of the Academic Council at its meeting held on 12.10.2021.
6. Approval of the Vice-Chancellor dated 29.12.2021 as per provision under Section 21 of the NEP Regulations.

1) Pursuant to the suggestions of the Karnataka State Higher Education Council, the Board of Studies in Environmental Science has modified the Syllabus and teaching work load for I & II Semester Environmental Studies as per NEP-2020. Accordingly, the modified **I & II Semester Environmental Studies** Syllabus, Curriculum and Teaching hours of Ability Enhancement Compulsory Course (AECC) for Undergraduate programs of Bengaluru City University are hereby notified for implementation from the academic year 2021-22.

2) Further, in pursuance of the recommendations of the KSHEC and the Board of Studies in Computer Science, the Syllabus for “**Digital Fluency (Skill Enhancement Course)**” is hereby notified for implementation from the academic year 2021-22 in place of the Syllabus notified vide Notification No:BCU:NEP-2020/BoS/Digital Fly/2021 dated 06.12.2021.

The copy of the modified Environmental Studies Syllabus and “Digital Fluency (Skill Enhancement Course) Syllabus are uploaded in the University Website: www.bcu.ac.in for information of the concerned.


REGISTRAR

To,

1. The Principals of the concerned affiliated Colleges of BCU – through email.
2. The Registrar (Evaluation), Bengaluru City University, Bengaluru.

Copy to;

1. The Dean, Faculty of Science, BCU.
2. The Chairperson & Members of BoS in Environmental Studies (UG), BCU.
3. The Chairman, BoS in Computer Science, BCU.
4. The P.S. to Vice-Chancellor/Registrar/Registrar (Evaluation), BCU.
5. Office copy / Guard file/University Website www.bcu.ac.in



**BENGALURU CITY UNIVERSITY
DEPARTMENT OF ENVIRONMENTAL SCIENCE**

National Education Policy - 2020 (NEP 2020)

Report on

**Proposed Curricular Framework for ABILITY ENHANCEMENT
COMPULSORY COURSE (AECC) ENVIRONMENTAL STUDIES**

**FOR
UNDER-GRADUATE PROGRAMMES**

**IN
COLLEGES AFFILIATED TO BENGALURU CITY UNIVERSITY**

Submitted to

The Registrar

**BENGALURU CITY UNIVERSITY
BENGALURU**

ABILITY ENHANCEMENT COMPULSORY COURSE (AECC) ENVIRONMENTAL STUDIES

The module consists of 8 units in which the first seven units will cover 45 lectures which are classroom based to enhance knowledge skills and attitude to environment. Unit 8 is based on field activities which will be covered in 5 lecture hours and would provide students first –hand knowledge on various local environmental aspects.

1. Environmental Studies (AECC) is made compulsory core module syllabus framed by UGC for all the Indian Universities as per the directions given by the honorable Supreme Court, which believed that, conservation of environment should be a national way of life and to be inculcated into the education process. As suggested by NEP-2020 State Level Subject Expert committee it is proposed staggered implementation for this course as shown below. This facilitates the distribution of the teaching workload of an institution in first and second Semester as follows;

Subject	Environmental studies Ability Enhancement Compulsory Courses(AECC)	Semester
Course	B.Sc/BA/BCA/BSW	I
	B.Com, /B.B.A/BBA(T&T)	II

2. **To ensure the interdisciplinary spirit of the proposed curriculum, teaching must be carried out by the faculty who are trained at post-graduate (M.Sc.) and Ph.D. in the ‘Environmental Science subject only. A candidate who is qualified with UGC-NET/K-SET in the area of Environmental Science will be well-equipped to teach this curriculum.**
3. The scheme of Examination and the question paper pattern for AECC – Environmental Studies will be multiple choice questions (MCQ) for 60 marks and 40 marks for internal assessment **with 3 hours of teaching per week** with 2 credits.

AECC-ENVIRONMENTAL STUDIES SYLLABUS

Number of Theory Credits	Number of lecture hours	Number of field work hours
2(L T P 3-1-0)	45	5

	Content of AECC-Environmental Studies	45 hours
Unit 1	Introduction to Environmental Studies	2
	Multidisciplinary nature of environmental studies Scope and importance; Concept of sustainability and sustainable development.	
Unit 2	Ecosystems	6
	<p>What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems:</p> <ul style="list-style-type: none"> a) Forest ecosystem, b) Grassland ecosystem, c) Desert ecosystem, <p>Aquatic ecosystems(ponds, streams, lakes, rivers, oceans, estuaries)</p>	
Unit 3	Natural Resources: Renewable and Non-Renewable Resources	8
	Land resources and land-use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Water: Use and over-exploitation of surface and groundwater, floods, droughts, conflicts over water (international & inter-state). Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.	

Unit 4	Biodiversity and Conservation	8
	Levels of biological diversity: Genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hotspots. India as a mega-biodiversity nation; Endangered and endemic species of India. Threats to biodiversity: Habitat loss, poaching of wildlife, man- wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.	
Unit 5	Environmental Pollution	8
	Environmental pollution: types, causes, effects and controls; Air, water ,soil and noise pollution, Nuclear hazards and human health risks Solid waste management, Control measures of urban and industrial waste Pollution case studies.	
Unit 6	Environmental Policies & Practices	7
	Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment Laws: Environment Protection Act; Air(Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity(CBD). Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context	

Unit 7	Human Communities and The Environment	6
	<p>Human population growth: Impacts on environment, human health and welfare.</p> <p>Resettlement and rehabilitation of project affected persons; case studies.</p> <p>Disaster management: floods, earthquake, cyclones and landslides.</p> <p>Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan</p> <p>Environmental ethics: Role of Indian and other religions and cultures in environmental conservation</p> <p>Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).</p>	
Unit8	Fieldwork	5

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