



UNIVERSITY OF CALCUTTA

SENATE HOUSE

87/1, College Street, Kolkata – 700 073

Prof. (Dr.) Soma Bandyopadhyay

Registrar (Acting)

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প্রফেসর (ডঃ) সোমা বন্দ্যোপাধ্যায়
কার্যনির্বাহী নিবন্ধক

TO WHOM IT MAY CONCERN

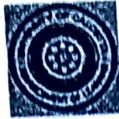
This is to certify that Muralidhar Girls' College, p-411/14, Gariahat Road, Ballygunge, Kolkata- 700029, West Bengal is affiliated to the University of Calcutta and recognized by the University Grants Commission and the following Courses/Subjects are taught in the said college as per approval:

Sl No	Name of the Course(s) and Duration	Affiliation		Period of Validity for the year(s)
		Permanent	Temporary	
1.	Three Year B.A. Honours Courses in English, Bengali, Sanskrit, Education, History, Philosophy, Political Science, Sociology, Psychology, Geography, Journalism & Mass Communication	NA		Affiliation stands valid till date
2.	Three Year B.A. General in Elective English, Bengali, Sanskrit, Education, History, Philosophy, Political Science, Sociology, Psychology, Geography, Journalism & Mass Communication	NA		Do
3.	Three Year B.Sc. General Course in Botany, Economics, Geography, Psychology, Mathematics, Statistics, Chemistry, Film Studies	NA		Do
4.	Three Year B.Sc. Honours Course in Botany, Economics, Geography, Psychology	NA		Do
5.	Three Year Major Course in Tourism & Travel Management	NA		Do

Date: 21.02.2016
Place : Kolkata

Kripalini Bhowmik
20.7.20
Principal
Muralidhar Girls' College

Sj
Prof. (Dr.) S. Bandyopadhyay
Registrar (Acting) 22.03.16.



UNIVERSITY OF CALCUTTA

GURUPADA SAREN
SECRETARY
COUNCILS FOR UNDERGRADUATE STUDIES,
UNIVERSITY OF CALCUTTA.

Ref.No : CUS/ 268 (Cir.)/18
Dated the 07th May, 2018

To
The Principals/T.I.C.
of all the U.G. Colleges
affiliated to the University of Calcutta

SENATE HOUSE

Kolkata - 700 073.
Phone : 2241-0071-74,
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Sir/Madam,

The undersigned is directed to forward you the University Notifications No. CSR/3/18, dt.07.05.2018 and CSR/4/18, dt.07.05.2018, containing new Admission & Examination Regulations for semester-wise three-year (six semesters) B.A./B.Sc./B.Mus. (Honours/General) and B.A./B.Sc./B.Com.(Major) Courses of Studies under CBCS.

This new Admission and Examination Regulation will come into effect from this academic session, i.e., 2018-2019.

The said Notifications along with detail Regulations is also available in the University Website.

Thanking you,

Enclo:

The University Notifications No. CSR/3/18, dt.07.05.2018 & CSR/4/18, dt.07.05.2018 along with detail Regulations.

Yours faithfully,


Secretary 07/05/18



20.7.20
Principal
Muralidhar Girls' College



UNIVERSITY OF CALCUTTA

Notification No. CSR/ 12 /18

It is notified for information of all concerned that the Syndicate in its meeting held on 28.05.2018 (vide Item No.14) approved the Syllabi of different subjects in Undergraduate Honours / General / Major courses of studies (CBCS) under this University, as laid down in the accompanying pamphlet:

List of the subjects

Sl. No.	Subject	Sl. No.	Subject
1	Anthropology (Honours / General)	29	Mathematics (Honours / General)
2	Arabic (Honours / General)	30	Microbiology (Honours / General)
3	Persian (Honours / General)	31	Mol. Biology (General)
4	Bengali (Honours / General /LCC2 /AECC1)	32	Philosophy (Honours / General)
5	Bio-Chemistry (Honours / General)	33	Physical Education (General)
6	Botany (Honours / General)	34	Physics (Honours / General)
7	Chemistry (Honours / General)	35	Physiology (Honours / General)
8	Computer Science (Honours / General)	36	Political Science (Honours / General)
9	Defence Studies (General)	37	Psychology (Honours / General)
10	Economics (Honours / General)	38	Sanskrit (Honours / General)
11	Education (Honours / General)	39	Social Science (General)
12	Electronics (Honours / General)	40	Sociology (Honours / General)
13	English ((Honours / General/ LCC1/ LCC2/AECC1)	41	Statistics (Honours / General)
14	Environmental Science (Honours / General)	42	Urdu (Honours / General /LCC2 /AECC1)
✓ 15	Environmental Studies (AECC2)	43	Women Studies (General)
16	Film Studies (General)	44	Zoology (Honours / General)
17	Food Nutrition (Honours / General)	45	Industrial Fish and Fisheries – IFFV (Major)
18	French (General)	46	Sericulture – SRTV (Major)
19	Geography (Honours / General)	47	Computer Applications – CMAV (Major)
20	Geology (Honours / General)	48	Tourism and Travel Management – TTMV (Major)
21	Hindi (Honours / General /LCC2 /AECC1)	49	Advertising Sales Promotion and Sales Management –ASPV (Major)
22	History (Honours / General)	50	Communicative English –CMEV (Major)
23	Islamic History Culture (Honours / General)	51	Clinical Nutrition and Dietetics CNDV (Major)
24	Home Science Extension Education (General)	52	Bachelor of Business Administration (BBA) (Honours)
25	House Hold Art (General)	53	Bachelor of Fashion and Apparel Design – (B.F.A.D.) (Honours)
26	Human Development (Honours / General)	54	Bachelor of Fine Art (B.F.A.) (Honours)
27	Human Rights (General)	55	B. Music (Honours / General) and Music (General)
28	Journalism and Mass Communication (Honours / General)		

The above shall be effective from the academic session 2018-2019.

SENATE HOUSE
KOLKATA-700073
The 4th June, 2018

Paul
4/6/18
(Dr. Santanu Paul)
Deputy Registrar

University of Calcutta

Under Graduate Curriculum under Choice Based Credit System (CBCS)

Syllabus for Ability Enhancement Compulsory Course-2 (AECC-2) in **Environmental Studies**

Semester-2

Total Marks-100(Credit -2)

(50 Theory-MCQ type + 30 Project + 10 Internal Assessment + 10 Attendance)

[Marks obtained in this course will be taken to calculate SGPA & CGPA]

Theory

Unit 1	Introduction to environmental studies	2 lectures
	<ul style="list-style-type: none">•Multidisciplinary nature of environmental studies;•Scope and importance; Concept of sustainability and sustainable development.	
Unit 2	Ecology and Ecosystems	6 lectures
	<ul style="list-style-type: none">•Concept of ecology and ecosystem, Structure and function of ecosystem; Energy flow in an ecosystem; food chains, food webs; Basic concept of population and community ecology; ecological succession.•Characteristic features of the following:<ul style="list-style-type: none">a) Forest ecosystemb) Grassland ecosystemc) Desert ecosystemd) Aquatic ecosystems (ponds, streams, lakes, wetlands, rivers, oceans, estuaries)	
Unit 3	Natural Resources	8 lectures
	<ul style="list-style-type: none">• Concept of Renewable and Non-renewable resources• Land resources and land use change; Land degradation, soil erosion and desertification.•Deforestation: Causes, consequences and remedial measures•Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).•Energy resources: Environmental impacts of energy generation, use of alternative and nonconventional energy sources, growing energy needs.	
Unit 4	Biodiversity and Conservation	8 lectures
	<ul style="list-style-type: none">•Levels of biological diversity: genetic, species and ecosystem diversity;• Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots•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 lectures
	<ul style="list-style-type: none">• Environmental pollution: concepts and types,• Air, water, soil, noise and marine pollution- causes, effects and controls• Concept of hazardous waste and human health risks• Solid waste management: Control measures of Municipal, biomedical and e-waste.	

Unit 6 Environmental Policies and Practices	7 lectures
<ul style="list-style-type: none"> •Climate change, global warming, ozone layer depletion, acid rain and their impacts on human communities and agriculture •Environment Laws: Wildlife Protection Act; Forest Conservation Act. Water (Prevention and control of Pollution) Act; Air (Prevention & Control of Pollution) Act; Environment Protection Act; Biodiversity Act. •International agreements: Montreal Protocol, Kyoto protocol and climate negotiations; Convention on Biological Diversity (CBD). •Protected area network, tribal populations and rights, and human wildlife conflicts in Indian context. 	
Unit 7 Human Communities and the Environment	6 lectures
<ul style="list-style-type: none"> •Human population growth: Impacts on environment, human health and welfare. •Case studies on Resettlement and rehabilitation. • Environmental Disaster: Natural Disasters-floods, earthquake, cyclones, tsunami and landslides; Manmade Disaster- Bhopal and Chernobyl. •Environmental movements: Bishnois, Chipko, Silent valley, Big dam movements. •Environmental ethics: Role of gender and cultures in environmental conservation. •Environmental education and public awareness 	
Project/ Field work	Equal to 5 lectures
<ul style="list-style-type: none"> •Visit to an area to document environmental assets: Natural resources/flora/fauna, etc. •Visit to a local polluted site-Urban/Rural/Industrial/Agricultural. •Study of common plants, insects, fish, birds, mammals and basic principles of identification. •Study of ecosystems-pond, river, wetland, forest, estuary and agro ecosystem. 	
Total	50 Lectures

Suggested Reading:

Asthana, D. K. (2006). *Text Book of Environmental Studies*. S. Chand Publishing.

Basu, M., Xavier, S. (2016). *Fundamentals of Environmental Studies*, Cambridge University Press, India

Basu, R. N., (Ed.) (2000). *Environment*. University of Calcutta, Kolkata

Bharucha, E. (2013). *Textbook of Environmental Studies for Undergraduate Courses*. Universities Press.

De, A.K., (2006). *Environmental Chemistry*, 6th Edition, New Age International, New Delhi.

Mahapatra, R., Jeevan, S.S., Das, S. (Eds) (2017). *Environment Reader for Universities*, Centre for Science and Environment, New Delhi.

Masters, G. M., & Ela, W. P. (1991). *Introduction to environmental engineering and science*. Englewood Cliffs, NJ: Prentice Hall.

Odum, E. P., Odum, H. T., & Andrews, J. (1971). *Fundamentals of ecology*. Philadelphia: Saunders.

Sharma, P. D., & Sharma, P. D. (2005). *Ecology and environment*. Rastogi Publications.