BHARATHIDASAN UNIVERSITY   **TIRUCHIRAPPALLI - 620 024.**

B.Sc. ENVIRONMENTAL SCIENCE

CHOICE BASED CREDIT SYSTEM –

LEARNINIG OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)

(Applicable to the candidates admitted from the academic year 2022-23 onwards)

(For the 2024-2025 batch, the Naan Mudhalvan scheme has been implemented in the 2nd semester)

Sem.	Part	Courses	Title	Ins. Hrs.	Credits	Exam Hours	Marks Int.	Marks Ext.	Total
I	I	Language Course – I (Tamil $/Other Languages + #)		6	3	3	25	75	100
	II	English Course - I		6	3	3	25	75	100
	III	Core Course – I (CC)	Concepts of Environment	5	5	3	25	75	100
		Core Practical – I (CP)	Environment and Ecology	4	4	3	40	60	100
		First Allied Course – I (AC)	Biology I	4	4	3	25	75	100
		First Allied Practical (AP)	Biology	3	-	-	-	-	-
	IV	Value Education		2	2	3	25	75	100
		TOTAL		**30**	**21**	**-**	**-**	**-**	**600**
II	I	Language Course - II (Tamil $/Other Languages + #)		6	3	3	25	75	100
	II	English Course - II		4	3	3	25	75	100
	III	Core Course – II (CC)	Biodiversity and Conservation	5	5	3	25	75	100
		Core Practical – II (CP)	Ecology, Biodiversity and Conservation	4	4	3	40	60	100
		First Allied Practical (AP)	Biology	3	2	3	40	60	100
		First Allied Course – II (AC)	Biology II	4	4	3	25	75	100
		Add on Course – I ##	Professional English – I	6*	4	3	25	75	100
	IV	Environmental Studies		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Overview of English Language Communication	2	2	3	25	75	100
		TOTAL		**30**	**29**	**-**	**-**	**-**	**900**

Sem	Part	Course	Title						
III	I	Language Course – III (Tamil $/Other Languages + #)		6	3	3	25	75	100
	II	English Course - III		6	3	3	25	75	100
	III	Core Course – III (CC)	Environmental Pollution	5	5	3	25	75	100
		Core Practical - III (CP)	Air and Soil Pollution	4	4	3	40	60	100
		Second Allied Course – I (AC)	Chemistry I	4	4	3	25	75	100
		Second Allied Practical (AP)	Volumetric and Organic Qualitative Analysis	3	-	-	-	-	-
		Add on Course – II ##	Professional English - II	6*	4	3	25	75	100
	IV	Non-Major Elective I @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level **or** b) Special Tamil if Tamil language was studied upto 10th & 12th std.		2	2	3	25	75	100
		TOTAL		**30**	**25**	**-**	**-**	**-**	**700**
IV	I	Language Course –IV (Tamil $/Other Languages + #)		6	3	3	25	75	100
	II	English Course – IV		6	3	3	25	75	100
	III	Core Course - IV (CC)	Natural Resources	5	5	3	25	75	100
		Core Practical - IV (CP)	Water Pollution	4	4	3	40	60	100
		Second Allied Practical (AP)	Volumetric and Organic Qualitative Analysis	3	2	3	40	60	100
		Second Allied Course – II (AC)	Chemistry II	4	4	3	25	75	100
	IV	Non-Major Elective II @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level **or** b) Special Tamil if Tamil language was studied upto 10th & 12th std.		2	2	3	25	75	100
		TOTAL		**30**	**23**	**-**	**-**	**-**	**700**

2

V	III	Core Course - V (CC)	Environmental Microbiology and Biotechnology	5	5	3	25	75	100
		Core Course – VI (CC)	Environmental Sanitation	5	5	3	25	75	100
		Core Course – VII (CC)	Sustainable Development	5	5	3	25	75	100
		Core Practical -V (CP)	Environmental Microbiology	4	4	3	40	60	100
		Major Based Elective – I (Any one)	1. Climate Change and its Impact 2. Global Warming and Issues	5	4	3	25	75	100
	IV	Skill Based Elective I	Environmental Education and Awareness	4	2	3	25	75	100
		Soft Skills Development		2	2	3	25	75	100
		TOTAL		30	27	-	-	-	700
VI	III	Core Course - VIII (CC)	Waste Management	6	5	3	25	75	100
		Core Course - IX (CC)	Environmental Toxicology	6	5	3	25	75	100
		Core Practical – VI (CP)	Environmental Toxicology	4	4	3	40	60	100
		Major Based Elective II (Any one)	1. Eco Tourism 2. Environmental Law and Policy	5	4	3	25	75	100
		Project		4	3	-	20	80	100
	IV	Skill Based Elective – II	RRR Strategies	4	2	3	25	75	100
	V	Gender Studies		1	1	3	25	75	100
		Extension Activities **		-	1	-	-	-	-
		TOTAL		30	25	-	-	-	700
		GRAND TOTAL		180	150	-	-	-	4300

$ For those who studied Tamil upto 10th +2 (Regular Stream).

+ Syllabus for other Languages should be on par with Tamil at degree level.

Those who studied Tamil upto 10th +2 but opt for other languages in degree level under Part- I should study special Tamil in Part – IV.

The Professional English – Four Streams Course is offered in the 2nd and 3rd Semester (only for 2022-2023 Batch) in all UG Courses. It will be taught apart from the Existing hours of teaching / additional hours of teaching (1 hour /day) as a 4 credit paper as an add on course on par with Major Paper and completion of the paper is must to continue his / her studies further. (As per G.O. No. 76, Higher Education (K2) Department dated: 18.07.2020).

* The Extra 6 hrs / cycle as per the G.O. 76/2020 will be utilized for the Add on Professional English Course.

@ NCC Course is one of the Choices in Non-Major Elective Course. Only the NCC cadets are eligible to choose this course. However, NCC Course is not a Compulsory Course for the NCC Cadets.

** Extension Activities shall be outside instruction hours.

@@ Naan Mudhalvan Scheme.

SUMMARY OF CURRICULUM STRUCTURE OF UG PROGRAMMES

Sl. No.	Part	Types of the Courses	No. of Courses	No. of Credits	Marks
1.	I	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.		Core Courses	8	40	800
4.		Core Practical	7	29	700
5.		Allied Courses I & II	4	16	400
6.	III	Allied Practical	2	4	200
7.		Major Based Elective Courses	2	8	200
8.		Add on Courses	2	8	200
9.		Project	1	3	100
10.		Non-Major Elective Courses (Practical)	2	4	200
11.		Skill Based Elective Courses	2	4	200
12.	IV	Soft Skills Development	1	2	100
13.		Value Education	1	2	100
14.		Environmental Studies	1	2	100
15.	V	Gender Studies	1	1	100
16.		Extension Activities	1	1	0
17.	VI	Naan Mudhalvan Scheme	1	2	100
		Total	**44**	**150**	**4300**

PROGRAMME OBJECTIVES:

- Enhance the ability to apply this knowledge and proficiency to find solutions relating to environmental concerns of varied dimensions of present times.
- To develop analytical thinking and problem-solving skills needed for various entrance and competitive examinations and Post Graduate Studies
- To train students in laboratory skills and handling equipment along with soft skills needed for placement.
- Motivate graduates to appreciate that they are an integral stakeholder in the environmental management of India irrespective of their future jobs or working.
- Help graduates to understand the concerns related to Sustainable Development Goals (SDGs) and the Indian obligations.

PROGRAMME OUTCOMES:

- Student are able to acquire knowledge, competent professionals with a strong foundation of Environmental Science
- The learners will be able to become effective scientific communicators/collaborators in multidisciplinary teams providing technical leadership to engage with the challenging environmental problems of local, national and global nature.
- They can opt for higher studies in plant and animal sciences as the environmental science is multidisciplinary in nature.
- The students will be eligible to appear for various competitive examinations and pursue higher education.
- Students will understand about how the subject knowledge helps in solving various social, economic and environment related problem
- To bring sensitization towards the environment and also increase student competency & employability.

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