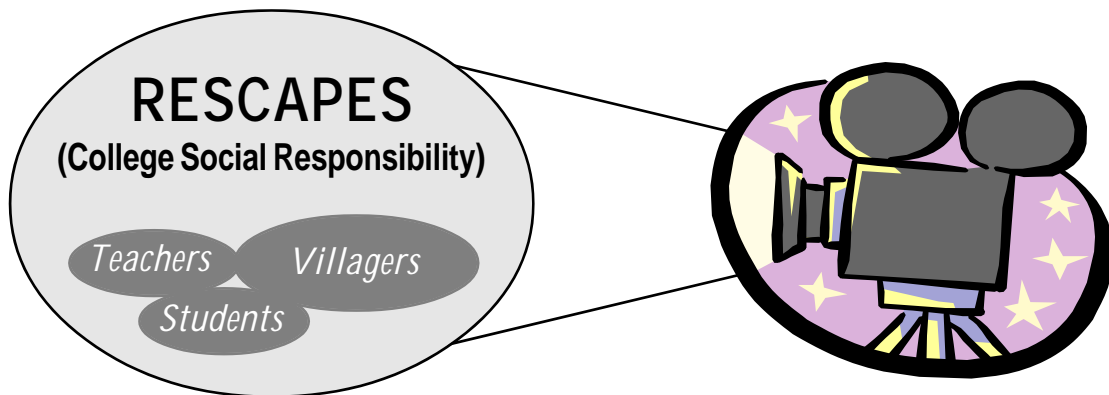


Holy Cross College

(AUTONOMOUS)

TIRUCHIRAPPALLI - 620002



RESCAPES

Rural Enrichment through Students and Community Action and Participation for Environmental Sustainability.

Holy Cross College (Autonomous), Tiruchirappalli was established in 1923 and is affiliated to Bharathidasan University. It attained the autonomous status in 1987 and was accredited with 5 star status by the National Assessment and Accreditation Council in 1999 and Re-accredited with 'A' grade in the year 2005. In the third cycle of accreditation it was awarded 'A' Grade with 3.5 on a 4 Point Scale, in the year 2012. During the year 2000 this college moved on to the dynamic concept of Choice Based Credit System (CBCS).

NEED & SCOPE FOR RESCAPES:

- Ø One of the major goals of our college is "To awaken social consciousness and prepare socially responsible citizens".
- Ø Our College is continuously undertaking innovative and sustained activities to achieve this goal.
- Ø Our College has several service wings which provide the students hands on information which has highlighted the fact that there has been an overall decline in the quality of the environment in the villages, making them unsustainable for the livelihood of common rural mass.
- Ø To remedy this situation, our College has planned the RESCAPES project to rejuvenate the rural environment and create sustainable livelihood for the people residing in the villages.
- Ø The College had conducted an International Conference on Sustainable Development and Management of Natural Resources from 15th-17th March 2003, during which several recommendations were made for the conservation of the ecosystem particularly in India.
- Ø In order to equip the students to achieve this goal, the College had invited experts to conduct field visits, workshops and seminars to develop a comprehensive and sustained Action Plan to address a variety of issues relating to Students, Civil society and Community Service.
- Ø Following this effort, a comprehensive package for Soft Skills Development and Community Development for the Students in their 3 year under Graduate Program was developed. It was titled **RESCAPES**.

PURPOSE OF RESCAPES:

Rural Enrichment through Students and Community Action and Participation for Environmental Sustainability (RESCAPES) is an Extension Project of Holy Cross College, launched in the year 2004 (6.7.04). It is a Structured Programme, built into the curriculum to provide skills and opportunities for students to do things differently and achieve optimum benefits for their own development and for the welfare of the rural community.

This Community Development based course is designed not to be a stand alone programme but for the integrated academic and personal development of the students.

OBJECTIVES OF RESCAPES:

- ✓ To awaken Social Consciousness and prepare socially responsible citizens.
- ✓ To impart skills and knowledge
- ✓ To encourage creativity in students bringing out their latent talents
- ✓ To build genuine human relationships
- ✓ To inculcate concern and respect for persons and nature
- ✓ To enable the students to get exposed to rural community.
- ✓ To be a link between the Government authority and village community.
- ✓ To enable the village community to become self reliant.
- ✓ To enable the village community to sustain their eco system.

TARGET AREA:

For the RESCAPES program the college has adopted 24 villages in Mannachanallur Block namely (for I, II & III UG)

- | | | |
|--------------------------|----------------------|--------------------------|
| 1. Ayikudi | 2. Azhagiyamanavalam | 3. C. Ayampalayam |
| 4. Devimanagalam | 5. Gopurapatty | 6. Kanniyakudi |
| 7. Kovathakudi | 8. Kuruvampatty | 9. No-94 Kariyamanikam |
| 10. Paachur | 11. Palaiyur | 12. Salakadu- South |
| 13. Salapatty-North | 14. Sengudi | 15. Sennakarai |
| 16. Ramagiripatty | 17. Thaluthalapatty | 18. Thirupanjalee |
| 19. Thiruvarangapatty | 20. Thiruvasi | 21. Valmanapalayam-Kelur |
| 22. Valmanapalayam-Melur | 23. Veerani | 24. Vazhaiyur |

For I PG 4 urban slums Tiruchirappalli namely

- | | | |
|--------------------|----------------------------|-----------------------|
| 1. Venis Street | 2. Anthoniyar Kovil Street | 3. Pathuvai Nagar and |
| 4. Pesitan Paithri | | |

For II PG 3 villages in Anthanalur Block & 2 villages in Manachanallur Block, namely

- | | | |
|------------|--------------------|----------|
| 1. Mekkudi | 2. Periya Karuppur | 3. Perur |
| 4. Konalai | 5. Tirupattur | |

TARGET POPULATION:

The target group for the project covers rural communities in general but will focus more on vulnerable marginalized groups like literate youth and children, women, subsistence farmers, unorganized labourers and dalits.

PROJECTS

Keeping in view the need for sustained efforts to enhance the quality of life of the people in the target villages, the College proposes to undertake the following projects which are categorized as Core and Optional Projects.

I. Core Projects

1. Water and Soil Conservation
 - a. Rain Water Harvesting
 - b. Bund formation
 - c. Percolation pond construction
 - d. Desilting
2. Tree Plantation
3. Kitchen gardening
4. Sustainable agricultural practices
 - a. Vermi-compost
 - b. Panchakavya
 - c. Azolla cultivation
5. Health, Hygiene and Sanitation

II. Optional Projects (Based on the need of the village community)

- a. Herbal Plants cultivation
- b. Strengthening of SHG's
- c. Mushroom cultivation

III. Department Specific Projects

STRATEGY:

The strategy for village rejuvenation will involve and mainly address issues relating to soil, water and energy and thus rejuvenation of green village is attained by

- ✓ Adoption of strategies for watershed and soil management.
- ✓ Promotion of sustainable and eco-friendly agricultural practices like organic farming and tree plantation
- ✓ Use of non conventional energy,
- ✓ Promotion of food security and
- ✓ Development of infrastructure and facile access to markets, through Information Technology enabled services.

The package involves 3 stages:

- ü Orientation, learning and training
- ü Field application and reaching out to the communities
- ü Impact study, documentation, research and publication.

METHODOLOGY:

Stage I First Year:

During the year, the students acquire skills for personal, interpersonal and group effectiveness through Skill Based Elective -paper I Soft Skills Development. There will be specific Training programs to acquire skills on Environmental sustainability projects through Skill Based Elective - paper II. The student will visit the village assigned to her department, and perform a survey on the village resources.

Stage II Second Year:

Every student will spend a specified number of hours in field work in the adopted villages. The activities will include exposure to the realities of rural environment, sensitization to special needs of the local communities, problem identification through survey and resource mapping, designing and executing appropriate project through interaction and participation of the communities, local government officers, elected leaders of Panchayat and other bodies.

Stage III Third Year:

Every student will undertake an impact study and prepare a report on the outcomes of the project implemented in the village.

CONCLUSION:

RESCAPES programme develops ecologically sustainable model villages and develops rural community which realizes the importance of sustainable development. Above all, the programme facilitates the students to become potential leaders who can build the nation and the society at large.

RESCAPES VILLAGE LIST - 2021 - 2022 - ONWARDS			
S.No.	PANCHAYAT NAME	S.NO	VILLAGE NAME
1	AZHAGIYAMANVALAM	1	AZHAGIYAMANVALAM
		2	GOPURAPATTY
		3	PALAIYUR
		4	THIRUVARANGAPATTY
2	KOVATHAKUDI	5	KOVATHAKUDI
		6	PAACHUR
3	SIRUPATHUR	7	SALAI PATTY-NORTH
		8	VEERANI
4	THIRUVASI	9	THIRUVASI
5	THATHAMANGALAM	10	DEVIMANGALAM
6	NO.94 KARIYAMANIKAM	11	NO.94 KARIYAMANIKAM
		12	KANNIYAKUDI
7	S.AYAMPALAYAM	13	S.AYAMPALAYAM
		14	SALAKADU-SOUTH
8	THIRUPANJALEE	15	THIRUPANJALEE
		16	VALMANAPALAYAM-MELUR
		17	VALMANAPALAYAM-KELUR
9	NO-2 KARIYAMANIKAM	18	SENGUDI
		19	SENNAKARAI
		20	KURUVAMPATTY
		21	RAMAGIRIPATTY
10	THALUTHALAPATTY	22	THALUTHALAPATTY
11	AYIKUDI	23	AYIKUDI
12	VALAIYUR	24	VALAIYUR

For I PG 4 urban slums Tiruchirappalli namely

1. Venis Street
2. Anthoniyar Kovil Street
3. Pathuvai Nagar and
4. Pesitan Paithri

For II PG 3 villages in Anthanalur Block & 2 villages in Manachanallur Block, namely

1. Mekkudi
2. Periya Karuppur
3. Perur
4. Konalai
5. Tirupattur

RESCAPES VILLAGE LIST – 2021 – 2022 - ONWARDS		
S.No.	DEPARTMENT	VILLAGE NAME
1	BBA-A	Azhagiyamanavalam
2	BBA-B	
3	BOTANY	Thiruvarangapatty
4	BIO-CHEMISTRY	Gopurapatty
5	BCA-A	Palaiyur
6	BCA-B	Paachur
7	B VOC-SOFTWARE DEVELOPMENT	Kovathakudi
8	COMPUTER SCIENCE	Salakadu- South
9	CHEMISTRY-A	C-Ayampalayam
10	CHEMISTRY-B	
11	CHEMISTRY-C	
12	COMMERCE-A	Devimanagalam
13	COMMERCE-B	Ayikudi
14	COMMERCE-C	Thaluthalapatty
15	COMMERCE-D	Kanniyakudi
16	COMMERCE-E-CA	No-94 Kariyamanikam
17	COMMERCE-BPO	Thaluthalapatty
18	B.VOC (BFSI)	Thaluthalapatty
19	ECONOMICS	Valmanapalayam-Melur
20	HISTORY	Valmanapalayam-Kelur
21	MATHS-A	Sengudi-Ramagiriipatty
22	MATHS-B	Sennakarai
23	MATHS-C	Thirupanjalee
24	BIO-TECH	Thiruvasi
25	ENGLISH-A	Salapatty-North
26	ENGLISH-B	No-94 Kariyamanikam
27	ENGLISH-C	Kanniyakudi
28	PHYSICS -A	Salapatty-North
29	PHYSICS-B	Ayikudi
30	FASHION TECHNOLOGY	Valaiyur
31	REHAB	Kuruvampatty
32	TAMIL	
33	ZOOLOGY	

HOLY CROSS COLLEGE (Autonomous) Tiruchirappalli-2 RESCAPES - I PG URBAN SLUM LIST 2023 - 2024 ONWARDS			
S.No	DEPARTMENT	S.No.	URBAN SLUM
1	M.C.A. Rehabilitation Science Library Science Biotechnology M.Com. Mathematics	1	Venis Street
2	Bio Chemistry Psychology Computer Science	2	Anthoniyar Kovil Street
3	English Chemistry Botany Physics Environmental Science Data Science	3	Pesitan Paithri
4	Tamil Zoology History	4	Pathuvai Nagar

HOLY CROSS COLLEGE (Autonomous) Tiruchirappalli-2 RESCAPES – II PG UBA VILLAGE LIST 2023 - 2024 ONWARDS			
S.No	DEPARTMENT	S.No.	UBA VILLAGE
1	Computer Science English Bio Chemistry Zoology	1	Perur
2	Psychology Maths - A Environmental Science data Science	2	Maykudi
3	Physics Library Science Maths – B M.C.A.	3	Periyakarupur
4	Botany Chemistry	4	Konalai
5	Bio Technology Economics M.Com. Rehabilitation Science Tamil	5	Thirupaittur

RESCAPES - COURSE MODULE

Class	Semester	Course Components	Activities	Hours Allotted	Evaluation Strategy	Components Marks	Total Marks	Credits
I UG	II	SEC : 3 (Skill Enhancement Course) Sustainable Rural Development and Student Social Responsibility	Skill Training in Various Activities & Theoretical input	2 hrs / week	Test (2)	25	100	2
					Assignment	5		
					Mode Preparation	15		
					Attendance	5		
					External Exam	50		
II UG	III & IV	ENVIRONMENTAL SUSTENANCE PROJECT Planning and Organising of project for the village visits	Village visit to survey the resources in the village	---	II Semester	25	100	1
					III Semester	25		1
					IV Semester	25		1
					Final Report on the impact of the Project Activity in the villages	10		1
III UG	V	Impact Analysis of the Project.	Survey and Report on the Project and Impact Test	---	Test to study the impact of RESCAPES on students	10	100	1
					Attendance for the Village Visit to study the impact of the Project	5		
					I Semester	25		
I PG	Odd & Even	Urban Slum Visit	Project identification Planning of projects Execution of projects	---	I Semester	25	100	1 Credit
					II Semester	25		
II PG	Odd & Even	UBA Village Visit	Project identification Planning of projects Execution of projects	---	III Semester	25	100	1 Credit
					IV Semester	25		

RESCAPES VILLAGE VISIT
LIST OF ACTION PLAN

Date	Year & Semester	No. of Visit	Action Plan

REPORTING FORMAT
I YEAR - Village Visit (II SEMESTER) / Village Visit - I PG (ODD SEMESTER)

Date of Planning :

Time :

Activity Planned :

Teacher's Name & Signature :

REPORTING FORMAT
I YEAR - Village Visit (II SEMESTER) / Village Visit - I PG (ODD SEMESTER)

Date of Execution :

Time :

Activity Performed :

My experiences :

Suggestions and feedback :

Teacher's Name & Signature :

REPORTING FORMAT

I year - II Semester (Village Visit)

SBE II – Sustainable Rural Development and Student Social Responsibility

Survey of Resources in the Village

Entry Time:

Exit Time:

I. General Particulars :

1. Name of the Village :

2. Name of the Panchayat :

3. Total Number of households in the village :

II. Economic Condition of the People

4. Major occupation of the people :

5. Educational status of the people :

6. Housing condition of the people :

III. Natural Resources in the village

7. Major plants and trees found in the village :

8. Animals found in the village :

9. Type of Soil found in the village :

- 10. Sources of Water in the village**
- 1. Drinking purpose** :

 - 2. Irrigation purpose** :
- 11. Major Crops grown in the village** :
- 12. Season of Cropping Pattern** :
- 13. Type of manure used in the field**
- a. 15 years back** :

 - b. At present** :
- 14. Hygiene & sanitation condition of the people** :
- 15. Major diseases which affect the people in the village especially children** :
- 16. Special skill of the people in the village** :

Teacher's Name & Signature:

Marks: /5

REPORTING FORMAT

Village Visit - II YEAR (III SEMESTER) – Visit 1 / Village Visit - I PG (EVEN SEMESTER)

Date of Planning :

Time :

Activity Planned :

Teacher's Name & Signature :

REPORTING FORMAT

Village Visit - II YEAR (III SEMESTER) – Visit 1 / Village Visit - I PG (EVEN SEMESTER)

Date of Execution :

Time :

Activity Performed :

My experiences :

Suggestions and feedback :

Teacher's Name & Signature :

REPORTING FORMAT

Village Visit - II YEAR (IV SEMESTER) – Visit 2 / Village Visit - II PG (ODD SEMESTER)

Date of Planning :

Time :

Activity Planned :

Teacher's Name & Signature :

REPORTING FORMAT

Village Visit - II YEAR (IV SEMESTER) – Visit 2 / Village Visit - II PG (ODD SEMESTER)

Date of Execution :

Time :

Activity Performed :

My experiences :

Suggestions and feedback :

Teacher's Name & Signature :

REPORTING FORMAT

Village Visit - III YEAR (V SEMESTER) / Village Visit - II PG (EVEN SEMESTER)

Date of Planning :

Time :

Activity Planned :

Teacher's Name & Signature :

REPORTING FORMAT

Village Visit - III YEAR (V SEMESTER) / Village Visit - II PG (EVEN SEMESTER)

Date of Execution :

Time :

Activity Performed :

My experiences :

Suggestions and feedback :

Teacher's Name & Signature :

REPORTING FORMAT
Village Visit - III YEAR (V SEMESTER)
IMPACT STUDY REPORT

REPORTING FORMAT
Village Visit - III YEAR (V SEMESTER)
IMPACT STUDY REPORT

RESCAPES
EVALUATION FORM FOR UG STUDENTS 2023 - 2024

Sl. No.	Year and Semester	Particulars	Max. Marks		Marks Obtained
1	I Year UG II Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
2	II Year UG III Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
3	II Year UG IV Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
4	III Year UG V Semester	Final Report on the Impact of the Project Activity in the Villages	10	25	
		Test to study the Impact of RESCAPES on Students	10		
		Attendance for the Village Visit	5		
Total			100		

SIGNATURE OF THE STAFF WITH DATE

Semester VI

EXTENSION PROGRAMME – CIA (4 Credit / 100 Marks)

CODE : U23EX6RES01

Credit : 4

Sl.No.	Particulars	Maximum Marks
1	I Year – II Semester	25
2	II Year – III Semester	25
3	II Year – IV Semester	25
4	III Year – V or VI Semester	25
Total		100

RESCAPES**EVALUATION FORM FOR PG STUDENTS 2023 - 2024**

Sl. No.	Year and Semester	Particulars	Max. Marks		Marks Obtained
1	I Year PG Odd Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
2	I Year PG Even Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
3	II Year PG Odd Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
4	II Year PG Even Semester	Project Planning and Preparation for visit	12.5	25	
		Project Execution and Report Writing for visit	12.5		
Total			100		

Semester IV**EXTENSION PROGRAMME (PG) – CIA (1 Credit / 100 Marks)****CODE : P23EA4RES01****Credit : 1**

Sl. No.	Particulars	Maximum Marks	Marks Obtained
1	I Year – Odd Semester	25	
2	I Year – Even Semester	25	
3	II Year – Odd Semester	25	
4	II Year – Even Semester	25	
Total		100	

RESCAPES - (UG) - 2023 ONWARDS

SEMESTER	CODE
RESCAPES : VILLAGE VISIT - 1 - FOR FIRST YEAR STUDENTS	U23EX6RES01
SEMESTERS III & IV	
RESCAPES : VILLAGE VISIT - 2 - FOR SECOND YEAR STUDENTS	
RESCAPES : VILLAGE VISIT - 3 - FOR SECOND YEAR STUDENTS	
SEMESTERS - VI	
RESCAPES : VILLAGE VISIT - 4 - FOR THIRD YEAR STUDENTS IMPACT ANALYSIS ON THE VILLAGES BY STUDENTS	

RESCAPES - (PG) 2023 - 2024 ONWARDS

SEMESTER	CODE
I PG - ODD SEMESTER	P23EA4RES01
I PG - EVEN SEMESTER	
II PG - ODD SEMESTER	
II PG - EVEN SEMESTER	

(For candidates admitted from the academic year 2023 onwards)
HOLY CROSS COLLEGE (AUTONOMOUS)
TIRUCHIRAPPALLI-620 002
B.A. / B.Sc. / B.Com. / BCA & BBA DEGREE EXAMINATION

CHOICE BASED CREDIT SYSTEM
LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK

Programme Outcomes (POs)

Upon completion of the B.A. Degree Programme, the graduate will be able to

- PO1 – Demonstrate ability and attitude to acquire knowledge and skills in the advancing global scenario to apply them effectively and ethically for professional and social development.
- PO 2 – Involve in research and innovative endeavors and share their findings for the wellbeing of the society.
- PO 3 – Work effectively in teams and take up leadership in multi-cultural milieu
- PO 4 – Act with moral, ethical and social values in any situation.
- PO 5 – Excel as empowered woman to empower women
- PO 6 – Participate in activities towards environmental sustainability goals as responsible citizens.
- PO 7 – Pursue higher studies in the related field of sciences, humanities and management studies.
- PO 8 – Analyze and contribute positively to address socio-political, economic and business issues in national and international scenario
- PO 9 – Exhibit and utilize the multidimensional competencies in management studies for strategic decision making in business development and economic progress.

SEMESTER II / III

Course Title	SEC 3: Sustainable Rural Development and student social responsibility
Code	U23RE2SET03
Course Type	Theory
Hours/Week	2
Credits	2
Marks	100

CONSPECTUS

The students will be able to understand the approaches to rural development, concept of natural resources and resource mapping of villages and strengthen their leadership qualities, keeping in mind their responsibilities towards society.

COURSE OBJECTIVES

1. Understand the approaches to rural development and women empowerment through SHG's
2. Educate themselves about the different farming methods
3. Practice alternative agricultural methods
4. Understand the concept of social responsibility and aims of NCC
5. Understand the Leadership and Man Management

SYLLABUS

UNIT I - RURAL DEVELOPMENT

6HRS

Rural development- approaches, programmes and agencies for rural development. Women empowerment through SHG's. Village – Survey of natural resources and resource mapping of villages, Village Level Participating Approach (VLPA).

Extra reading/Key word: resource mapping tools, field study on SHG's

UNIT II - ALTERNATIVE AGRICULTURE MODELS

6HRS

Traditional Farming – Organic Farming – Zero budget farming, Precision Farming, Terrace Farming and Kitchen garden. Impact of the Green Revolution.

Extra reading / Key word: Practices in India

UNIT III - ELEMENTS IN ALTERNATIVE AGRICULTURE MODELS 6HRS

Vermicompost, Azolla, Amirthakarasal, Mulligai Puchiviratti. Cultivation of medicinal herbs and mushroom

Extra reading/Key word: Government policy for Alternative Agriculture farming.

UNIT IV- SOCIAL RESPONSIBILITY AND NCC

6HRS

Social responsibility – in professional and personal life. Aims of NCC, MOTTO, Cardinal Principles, Equivalent Rank (Army, Navy, Air force)

Extra reading/Key word: Benefits of being an NCC cadet

UNIT V - LEADERSHIP AND MAN MANAGEMENT

6HRS

Duties of citizen, leadership Training – Types, qualities – Discipline, Duty, Moral – Man Management, Civil Defense – Aims, Types, Services, Problems

Extra reading/Key word: Defense recruitment modes.

Note: Extra Reading/ keywords are only for Internal Testing (Seminar/ Assignments)

TEXT BOOKS

1. Packages of organic practices from Tamil Nadu Center for Indian Knowledge System (CIKS)

SUGGESTED READINGS

1. Tracey, S. and Anne, B. (2008). Sustainable development linking economy, society, environment. OECD insights

WEB RESOURCES

1. www.india.gov.in/schemes-and-programmes-ministry-rural-development.
2. www.fao.org.in

COURSE OUTCOME

- ✓ Acquire social responsibility for their profession – K1
- ✓ Compare the different farming technology as an alternative for agriculture- K2
- ✓ Interpret on various resources to develop the rural community – K3

PO & CO MAPPING

CO/PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	H	M	H	H	H	H	H	H	H
CO 2	H	H	M	H	H	H	M	H	H
CO 3	H	M	H	M	H	H	M	H	H

(For candidates admitted from the academic year 2022 onwards)

HOLY CROSS COLLEGE (AUTONOMOUS)

TIRUCHIRAPPALLI-620 002

B.Sc./B.Com/B.R.SC/B.C.A/ B.B.A DEGREE EXAMINATION

CHOICE BASED CREDIT SYSTEM

LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK

Course Title	ENVIRONMENTAL STUDIES
Code	U23ES4EVS01
Course Type	Theory
Semester	IV
Hours/Week	2
Credits	2
Marks	100

CONSPECTUS

To Educate and make students aware of various environmental issues and their consequences on environment, human and animal health and train the future generation to solve environmental issues.

COURSE OBJECTIVES

1. To impart knowledge on natural resources and the strategies for its management.
2. To provide basic understanding on various types of ecosystems and threats to biodiversity.
3. To discuss the various types of pollution and its impacts on environment.

UNIT I – NATURAL RESOURCES

6 HRS

- 1.1 Definition, Principle and scope of Environmental studies
- 1.2 Natural Resources- Forest, Water, Mineral, Food and Energy
- 1.3 Management and Conservation of Natural Resources.

Extra reading (Key Words): Non-renewable sources- location in India

UNIT II – ECOSYSTEMS AND BIODIVERSITY

6 HRS

- 2.1 Ecosystem – Definition - Structure and Functions – Energy flow in Ecosystem:
Food chain and Food webs
- 2.2 Biodiversity – Concept - Hotspots of Bio diversity – India as a Mega diversity country
- 2.3 Threats of biodiversity: Man and wildlife conflicts – Conservation of biodiversity:
Economic, Social and Ethical Values

Extra reading (Key Words): Red list (any 10 plants and animals)

UNIT III – ENVIRONMENTAL POLLUTION

6 HRS

3.1 Definition & Causes of different Pollutions: Air ,Water, Soil, Marine, Noise, Thermal, Nuclear Hazards

3.2 Effects of Pollution: Global warming (Climate Change) - Ozone layer depletion

3.3 Environmental pollution and diseases

Extra reading (Key Words): Environmental factors affecting human Behavior

UNIT IV – DISASTER MANAGEMENT

6 HRS

4.1 Natural disaster –Types: Earthquake –Flood – Cyclone - Landslides – Tsunami

4.2 Pre Disaster and Post Disaster Management

4.3 Manmade disasters: Terrorist incidence – Nuclear Disaster-War – Fire – Industry. Reasons for Manmade Disasters.

Extra reading (Key Words): Causative factors of any 2 disasters

UNIT V – ASSIGNMENT REPORT BASED ON THE LISTED FIELD WORK

6 HRS

5.1 Field visit to environmental assets- River/Forest/Grassland/Hill/Mountain/ Agricultural Land in the local area

5.2 Field visit to a local polluted site-Urban/Rural/Industrial/Agricultural

5.3 Field visit to study common plants/insects/birds in Tamilnadu Region

Note: Texts given in the Extra reading /Key words must be tested only through Assignment and Seminars.

TEXT BOOKS

1. Subramanian V, (2002). A Text Book on Environmental Science. Narosa Publishing House. New Delhi
2. Agarwal, K.C. (2008). Environmental Biology, Nidi Publication Ltd. Bikaner.
3. Chairas, D.D. (1985). Environmental Science. The Benjamin Cummings Publishing company., Inc.

SUGGESTED READINGS

1. Clarke George, L. (1954). Elements of Ecology. Hohn Wiley and SONS, Inc.
2. Hodges, L. (1977). Environmental Pollution, II Edition. Holt, Rinehart and Winston, New York. Krebs, C.J. (2001). Ecology. VI Edition. Benjamin Cummings.
3. Nebel, B.J. and Wright, R.T.(1996). Environmental Science, Prentice Hall, New Jersey

WEB REFERENCES

1. <https://en.wikipedia.org/wild/Microbial>
2. <http://www.environmentalscience.org/environmental-microbiology-gin>
3. www.pollutionissues.com/ABo/Bioremediation.htm

Note: Learners are advised to use latest edition of books.

COURSE OUTCOMES

The students will be able to

S. No.	Course Outcomes	Cognitive level
1	Identify the basic concepts of Natural resources, Ecosystem, Biodiversity, Pollution and Disaster Management.	K1
2	Become aware of the environmental issues in our country.	K2
3	Relate the environmental issues and challenges at regional, national and global level.	K3

PO & CO MAPPING

CO/PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	H	H	M	H	M	H	H
CO 2	H	H	H	H	M	H	H
CO 3	H	H	H	H	M	H	H

Notes