



## **DEPARTMENT OF BOTANY**

**Holy Cross College (Autonomous), Nagercoil**

*Nationally Accredited with A+ by NAAC (CGPA 3.35 – IV Cycle), Nagercoil – 629004,*

*Kanyakumari District, Tamil Nadu, India.*

## **MINUTES OF THE BOTANY BOARD OF STUDIES MEETING**

**2022 - 2023**



**Department of Botany**  
**Holy Cross College (Autonomous), Nagercoil**



*Nationally Accredited with A+ by NAAC (CGPA 3.35-IV Cycle), Nagercoil-629004,  
Kanyakumari District, Tamil Nadu, India.*

**Minutes of the Botany Board of Studies meeting held on 30.05.2023 at 9.00 AM**

**Ref.No. BOT/BOS/2022 – 2023/ 16**

**Members:**

Dr. A. Anami Augustus Arul	- Chairperson & Head of the Department
Dr. S.R. Senthil Kumar	- University Nominee
Dr. M. Reginald Appavoo	- Subject Expert
Dr. M. Johnson	- Subject Expert
Mr. S. Prakash	- Industrialist
Dr. B. Santhiya	- Alumna
Dr. Sr. Leema Rose	- Member
Dr. A. Anami Augustus Arul	- Member
Dr. Bojaxa A. Rosy	- Member
Dr. A. R. Florence	- Member
Dr. J. Albino Wins	- Member
Dr. J. Celin Pappa Rani	- Member
Dr. S. Kala Vetha Kumari	- Member
Dr. W. Vincy	- Member

**Agenda**

1. Prayer
2. Welcome by the Chairperson
3. Reading of the minutes of the previous meeting
4. Introduction of UG School of Biological Sciences
5. Revamping/ Revision of Curriculum for UG with PEOs, POs, PSOs and COs
6. Revision of syllabus for UG Semester I and II
7. Ratification of Curriculum Structure 2020-23
8. Syllabus for Value-added Courses
9. Introduction of PG School of Biological Sciences
10. Revamping / Revision of Curriculum for PG with PEOs, POs, PSOs and COs
11. Revision of syllabus for PG Semester I and II
12. Classification of courses as New courses/ Multidisciplinary courses/ Industry 4.0
13. Classification of Courses as Skill Development/ Employability/ Entrepreneurship
14. Classification of Courses as Local/National/Regional/ Global
15. Classification of Courses as Cross cutting issues - Gender Equity/ Environmental Sustainability/ Human Values/ Professional Ethics/Indian Knowledge System
16. Recommendation of books and journals for UG and PG
17. Suggestion for innovative teaching and evaluation techniques for UG and PG
18. Conduct of seminars / workshops in collaborations with Government Agents / Universities / NGOs.
19. New measures to be undertaken by the department
20. Feedback and action taken
21. Next meeting of BoS
22. Any other.

**Item 01/BOS 2023.05/03: Approval of the Minutes of the Meeting held on 01.12.2022**

Dr. A. Anami Augustus Arul, Chairperson, read the minutes of the previous meeting which was approved by the members after incorporating the modifications/suggestions given by the Academic council.

**Item 02/BOS 2023.05/04: Approval for introduction of UG School of Biological Sciences**

The board approved combining the UG departments of Botany and Zoology to establish the School of Biological Science after getting approval from Academic Council and M.S. University.

**Item 03/BOS 2023.05/05: Approval for Revamping/ Revision of Curriculum for UG with PEOs, POs, PSOs and COs**

**B.Sc., Botany**

**Programme Educational Objectives (PEOs)**

PEOs	Upon completion of B.A/B.Sc. Degree Programme, the graduates will be able to:	Mapping with Mission
PEO 1	Apply appropriate theory and scientific knowledge to participate in activities that support humanity and economic development nationally and globally, developing as leaders in their fields of expertise.	M1& M2
PEO 2	Use practical knowledge for developing professional empowerment and entrepreneurship and societal services.	M2, M3, M4 & M5
PEO 3	Pursue lifelong learning and continuous improvement of the knowledge and skills with the highest professional and ethical standards.	M3, M4, M5 & M6

**Programme Outcomes (POs)**

POs	Upon completion of B.Sc. Degree Programme, the graduates will be able to:	Mapping with PEOs
PO1	Obtain comprehensive knowledge and skills to pursue higher studies in the relevant field of science.	PEO1
PO2	Create innovative ideas to enhance entrepreneurial skills for economic independence.	PEO2
PO3	Reflect upon green initiatives and take responsible steps to build a sustainable environment.	PEO2
PO4	Enhance leadership qualities, team spirit and communication skills to face challenging competitive examinations for a better developmental career.	PEO1 &PEO3

PO5	Communicate effectively and collaborate successfully with peers to become competent professionals.	PEO2&PEO3
PO6	absorb ethical, moral and social values in personal and social life leading to highly cultured and civilized personality	PEO2 & PEO3
PO7	Participate in learning activities throughout life, through self-paced and self-directed learning to improve knowledge and skills.	PEO1&PEO3

**Program Specific Outcomes (PSOs)**

On successful completion of the B.Sc. Botany program, the students are expected to:		Mapping with Pos
PSO1	Implement the concept of science and technology to foster the traditional and modern techniques for solving the complex problems in Plant Biology.	PO4
PSO2	Ensure the use of contemporary tools and techniques in understanding the scope and significance of Botany	PO1& PO3
PSO3	Develop the scientific problem solving skills during experimentation, research projects, analysis and interpretation of data	PO4 & PO7
PSO4	Design scientific experiments independently and to generate useful information to address various issues in Botany.	PO6 & PO7
PSO5	Enhanced capacity to think critically; ability to design and execute experiments independently and/or team under multidisciplinary settings	PO2 & PO5
PSO6	Design and standardize protocols for public health and safety, and cultural, societal, and environmental considerations	PO6 & PO3
PSO7	Apply appropriate techniques, resources, and modern ICT tools for understanding plant resources.	PO2 & PO7
PSO8	Demonstrate the contextual knowledge in sustainable exploitation of medicinal, economically important and endangered plants as per the National Biodiversity Act.	PO6
PSO9	Follow the concept of professional ethics and bioethics norms for practicing the value of plant kingdom.	PO6
PSO10	Communicate proficiently with various stakeholders and society, to comprehend and to write and present reports effectively	PO4 & PO6

**Item 04/BOS 2023.05/06:Approval of Revision of Syllabus forUG Semester I and II**

TNSCHE syllabus with prime focus on LOCF with CBCS is implemented. LOCF is an initiative to create positive improvement in the Higher Education which aims to equip students with knowledge, skills, values, attitudes, leadership readiness/ qualities and life-long learning. The overall structure of the curriculum framed for B.Sc., Botany in 2023 was accepted by the board.

**Course Structure**

**Distribution of Hours and Credits**

**Curricular Courses**

Course	S I	S II	S III	S IV	S V	S VI	Total	
							H	C
Language	6 (3)	6 (3)	6 (3)	6 (3)			24	12
English	4 (3)	4 (3)	4 (3)	4 (3)			16	12
Core Course	5 (4)+ 3 (4)	5 (3)+ 3 (3)	5 (3)+ 3 (3)	4 (4)+ 3 (2)	5 (4)+ 5 (4)+	6(4) + 6(4) +	78	60
Core Lab Course	2 (-)	2 (2)	2 (2)	2 (2)	6 (4)	6(4)		
Project								
Elective I Generic/ Discipline Specific	4 (3)	4 (3)	4 (3)	4 (3)	4 (3)+ 4 (3)	5 (3)+ 4 (3)	33	24
Skill Enhancement Course SEC	2 (2) (NME)	2 (2) (NME)	1 (1) Entre sk	2 (2)			7	7
Skill Enhancement Course		2 (2)	2 (2)	2 (2)			6	6
Ability Enhancement Compulsory Course (AECC) Soft Skill-1 to IV	2 (2)		2 (2)				4	4
Naan Mudhalvan /Professional Competency Skill		2 (2)		2 (2)		2 (2)	6	6
Skill Enhancement - (Foundation Course)	2 (2)		1 (1) EVS	1 (1) EVS			4	4

Value Education					1 (1)	1 (1)	2	2
Summer Internship /Industrial Training					- (2)			2
Extension Activity						(1)		1
Total	<b>30 (23)</b>	<b>30 (23)</b>	<b>30 (23)</b>	<b>30 (24)</b>	<b>30 (25)</b>	<b>30 (22)</b>	<b>180</b>	<b>140 + 18</b>

**Co-Curricular Courses**

Course	S I	S II	S III	S IV	S V	S VI	Total
LEC – Life Ethics Course	-	1	-	1			2
SDT (Certificate Course)	1						1
Internship/ Summer Training Programme/ Field Visit/ Field Project	-	1		1			2
Specific Value-added Course	1		(1)		(1)		3
Generic Value-added Course		(1)		(1)		(1)	3
HRE - Human Rights Education	-	-	-	-	(1)	-	1
GES - Gender Equity Studies	-	-	-	-	-	(1)	1
(RUN)	-	-		1	-	-	1
Clubs & Committees / NSS	-	-	-	1	-	-	-1
MOOC		1		1		1	3

Total number of Compulsory Credits = Curricular Credits + Co-Curricular Credits: 140 + 18

## Courses Offered

## Semester I

Course	Course Code	Title of the Course	Credits	Hours/Week
Part I	TU231TL1	Language:	3	6
	FU231FL1	Tamil French		
Part II	EU231EL1	English	3	6
Part III	BU231CC1	Core Course I: Plant Diversity -I- Algae	5	5
	BU231CP1	Core Lab Course I: Plant Diversity -I- Algae	3	3
	BU231EC1	Elective Course I: Allied Botany -I	3	4
	BU231EP1	Elective Lab Course I: Allied Botany Practical	2	2
Part IV	BU231NM1	Non Major Elective NME I: Nursery and Landscaping	2	2
	BU231FC1	Foundation Course	2	2
		<b>Total</b>	<b>23</b>	<b>30</b>

## Semester II

Course	Course Code	Title of the Course	Credits	Hours/Week
Part I	TU232TL1	Language:	3	6
	FU232FL1	Tamil French		
Part II	EU232EL1	English	3	6
Part III	BU232CC1	Core Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens	5	5
	BU232CP1	Core Lab Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	3	3
	BU232EC1	Elective Course II: Allied Botany -II	3	4



	BU232EP1	Elective Lab Course II: Allied Botany Practical	2	2
Part IV	BU232NM1	Non Major Elective NME II: Mushroom Cultivation	2	2
	BU232SE1	Skill Enhancement Course SEC I: Botanical Garden and Landscaping	2	2
		<b>Total</b>	<b>23</b>	<b>30</b>

## Semester III

Course	Course Code	Title of the Course	Credits	Hours/Week
Part I	TU233TL1	Language:	3	6
	FU233FL1	Tamil French		
Part II	EU233EL1	English	3	6
Part III	BU233CC1	Core Course III: Plant Diversity – III – Bryophytes and Pteridophytes	5	5
	BU233CP1	Core Lab Course III: Plant Diversity – III – Bryophytes and Pteridophytes Practical -III	3	3
	BU233EC1	Elective Course III: Allied Botany -III	3	4
	BU233EP1	Elective Lab Course III: Allied Botany Practical – III	2	2
Part IV	BU233SE1	Skill Enhancement Course SEC II:(Entrepreneurial Skills): Entrepreneurial Opportunities in Botany	1	1
	BU233SE2	Skill Enhancement Course SEC III: Herbal Technology	2	2
	UG234EV1	Environmental Studies	-	1
		<b>Total</b>	<b>22</b>	<b>30</b>

## Semester IV

Course	Course Code	Title of the Course	Credits	Hours/Week
Part I	TU234TL1	Language:	3	6
	FU234FL1	Tamil French		
Part II	EU234EL1	English	3	6
Part III	BU234CC1	Core Course IV: Plant Diversity – IV – Gymnosperms, Paleobotany and Evolution	5	5
	BU234CP1	Core Lab Course IV: Plant Diversity – IV – Gymnosperms, Paleobotany and Evolution- Practical -IV	3	3
	BU234EC1	Elective Course IV: Allied Botany – IV	3	4
	BU234EP1	Elective Lab Course I: Allied Botany Practicals -IV	2	2
Part IV	BU234SE1	Skill Enhancement Course SEC IV :Fermentation Technology	1	1
	BU234SE2	Skill Enhancement Course SEC V: Environment Impact Analysis	2	2
	UG234EV1	Environmental Studies	2	1
		<b>Total</b>	<b>24</b>	<b>30</b>

## Semester V

Course	Course Code	Title of the Course	Credits	Hours/ Week
Part III	BU235CC1	Core Course V: Plant Morphology, Taxonomy and Economic Botany	4	6
	BU235CC2	Core Course VI: Plant Anatomy and Embryology	4	6
	BU235CP1	Core Lab Course V: Plant Morphology, Taxonomy and Economic Botany & Plant Anatomy and Embryology	4	4

	BU235PW1	Core Project	4	4
	BU235DE1	Discipline Specific Elective I: a) Bio-Analytical Technology	3	4
	BU235DE2	Discipline Specific Elective I: b) Aquatic Botany		
	BU235DE3	Discipline Specific Elective I: c) Entrepreneurial Botany		
	BU235DE4	Discipline Specific Elective II : a) Bio nanotechnology	3	4
	BU235DE5	Discipline Specific Elective II : b) Computer Application in Botany		
	BU235DE6	Discipline Specific Elective II : c) Forensic Botany		
Part IV	BU235VE1	Value Education	2	2
	BU235SII / BU235IT1	Summer Internship/Industrial Training	2	-
		<b>Total</b>	<b>26</b>	<b>30</b>

**Semester VI**

Course	Course Code	Title of the Course	Credits	Hours
Part III	BU236CC1	Core Course VII: Plant Ecology and Phytogeography	3	5
	BU236CC2	Core Course VIII: Plant Biotechnology and Molecular Biology	3	5
	BU236CC3	Core Course IX: Plant Physiology and Biochemistry	3	5
	BU236CP1	Core Lab VI: Plant Ecology and Phytogeography & Plant Biotechnology and Molecular Biology	4	5
	BU236CP3	Core Lab VII: Plant Physiology and Biochemistry	3	4
	BU236DE1	Discipline Specific Elective III: a) Horticulture	3	4
	BU236DE2	Discipline Specific Elective III: b) Natural Resource Management		

	BU236DE3	Discipline Specific Elective III: c) Forestry		
	BU236EA1	Extension Activity	1	-
	BU236PS1	Professional Competency Skill	2	2
		<b>Total</b>	<b>22</b>	<b>30</b>
<b>TOTAL</b>			<b>140</b>	<b>180</b>

**Item 05/BOS 2023.05 /07: Ratification of Curriculum Structure 2020-23**

Ratification in 2020-23 structure with changes in Semester IV/ V to introduce mandatory Internship with 1 extra credit and in Semester V instead of project, internship can be opted.

**Item 06/BOS 2023.05/08: Approval of syllabus for Value-Added Courses**

**Specific Value-added Courses (SVC):**The BoS members accepted the specific value Added course (SVC) to be offered in Semesters I of UG programme by the departments.

Semester	Sub. Code	Name of the Course	Hours
I	BU231V01	Art of Bonsai	30
I	BP231V01	Natural Resources and their Conservation	30

**Item 07/BOS 2023.05/09: Approval of PG School of Biological Sciences**

The board approved combining the PG departments of Botany and Zoology to establish the School of Biological Science after getting approval from Academic Council and M.S. University.

**Item 08/BOS 2023.05/10:Approval of Revamping / Revision of Curriculum for PG with PEOs, POs, PSOs and COs**

**Programme Educational Objectives (PEOs)**

PEOs	Upon completion of M. Sc. Botany Programme, the graduates will be able to:	Mapping with Mission
PEO1	Apply scientific and computational technology to solve social and ecological issues and pursue research.	M1, M2
PEO2	Continue to learn and advance their career in industry both in private and public sectors.	M4 & M5
PEO3	Develop leadership, teamwork, and professional abilities to become a more cultured and civilized person and to tackle the challenges in serving the country.	M2, M5 & M6

**Programme Outcomes (POs)**

POs	Upon completion of M.Sc. Botany Programme, the graduates will be able to:	Mapping with PEOs
PO1	Apply their knowledge, analyze complex problems, think independently, formulate and perform quality research.	PEO1 & PEO2
PO2	Carry out internship programmes and research projects to develop scientific and innovative ideas through effective communication.	PEO1, PEO2 & PEO3
PO3	Develop a multidisciplinary perspective and contribute to the knowledge capital of the globe.	PEO2
PO4	Develop innovative initiatives to sustain eco friendly environment	PEO1, PEO2
PO5	Through active career, team work and using managerial skills guide people to the right destination in a smooth and efficient way.	PEO2
PO6	Employ appropriate analysis tools and ICT in a range of learning scenarios, demonstrating the capacity to find, assess, and apply relevant information sources.	PEO1, PEO2 & PEO3
PO7	Learn independently for lifelong executing professional, social and ethical responsibilities leading to sustainable development.	PEO3

**PROGRAMME SPECIFIC OUTCOMES (PSOs)**

<b>Program Specific Outcomes(PSO)</b>	
<b>On successful completion of the M.Sc. Botany programme, the students are expected to</b>	
<b>PSO1</b>	Familiarize with the fundamental, advanced and emerging concepts in Botany.
<b>PSO2</b>	Understand the role of plants and their inter actions with other organisms in various eco systems.
<b>PSO3</b>	Identify the potency of plant resources in contemporary research and visualize future thrust areas in Botany.
<b>PSO4</b>	Design scientific experiments in dependently and to generate use full information to address various issues in Botany.
<b>PSO5</b>	Acquire basic knowledge on principles and applications of laboratory instruments and adequate skills to handle them.
<b>PSO6</b>	Choose and apply appropriate tools, techniques, resources, etc. toper form various experiments in Botany.
<b>PSO7</b>	Carry out scientific experiments in dependently or incollaboration with inter-disciplinary or multidisciplinary approaches.
<b>PSO8</b>	Disseminate knowledge on conservation of biodiversity and protection of environment.
<b>PSO9</b>	Awareness on the sustainable utilization of plant/ microbial resources following the bioethicalnorms.
<b>PSO10</b>	Demonstrate proficiency in communicating with various stakeholders like students, teachers, scientists and society.

**Item 09/BOS 2023.05/11: Approval of Revision of Syllabus for PG Semester I and II**

TNSCHE syllabus with prime focus on LOCF with CBCS is implemented. LOCF is an initiative to create positive improvement in the Higher Education which aims to equip students with knowledge, skills, values, attitudes, leadership readiness/ qualities and life-long learning.

The overall structure of the curriculum framed for M.Sc., Botany in 2023 was accepted by the board.

**PG Course Structure**  
**Distribution of Hours and Credits**

**(i) Curricular Courses**

Course	SEMESTER				Total	
	I	II	III	IV	Hours	Credits
Core Course – Theory & Lab	7(5) +7(5) +6(4)	6(5)+6(5) )+6(4)	6(5)+6(5) +6(5)+6 (4)	6(5)+ 6(5)	74	5 7
Elective Course	5(3)+ 5(3)	4(3)+ 4(3)	4(3) -	4(3) -	26	1 8
Core Project		-		10(7)	10	7
Skill Enhancement Course		4(2)	2(2)	4(2)	10	6
Internship/ Industrial Activity			(2)		-	2
Extension Activity				(1)	-	1
<b>Total</b>	<b>30 (20)</b>	<b>30 (22)</b>	<b>30 (26)</b>	<b>30 (23)</b>	<b>120</b>	<b>91</b>

**Total Number of Hours =120**

**Total Number of Credits = 91 + (10)**

**(ii) Co-curricular Courses**

Course	SEMESTER				Total
	I	II	III	IV	Credits
Life Skill Training –I	-	(1)	-	-	1
Life Skill Training –II	-	-	-	(1)	1
Field Project	(1)		-		1
Specific Value-Added Courses	(1)		(1)		2
Generic Value-Added Courses		(1)		(1)	2
MOOC		(1)		(1)	2
Community Engagement Activity (UBA)		(1)			1

## PG Botany

## Semester I

Course Code	Title of the Course	Credits	Hours / Week
BP231CC1	Core Course I: Plant Diversity-I Algae, Fungi, Lichens and Bryophytes	5	7
BP231CC2	Core Course II: Plant Diversity - II: Pteridophytes, Gymnosperms and Paleobotany	5	7
BP231CP1	Core Lab Course I: Laboratory course- I: Covering Core Papers - I and II	4 (2+2)	6 (3+3)
BP231EC1	Elective Course I: a) Microbiology, immunology and plant pathology	3	5
BP231EC2	Elective Course I: b) Conservation of natural resources and policies		
BP231EC3	Elective Course I: c) Mushroom cultivation		
BP231EC4	Elective Course II: a) Ethnobotany, naturopathy and Traditional Healthcare	3	5
BP231EC5	Elective Course II: b) Algal Technology		
BP231EC6	Elective Course II: c) Herbal Technology		
	<b>Total</b>	<b>20</b>	<b>30</b>

## Semester II

Course Code	Title of the Course	Credits	Hours / Week
BP232CC1	Core Course III: Taxonomy of Angiosperms and Economic Botany	4	5
BP232CC2	Core Course IV: Plant Anatomy and Embryology of angiosperms	4	5
BP232CC3	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	4	5
BP232CP2	Core Lab Course II: Lab Course (for Core III, IV & V)	4 (2+2)	5 (3+3)



BP232EC1	Elective Course III: : a) <b>Biostatistics</b>	2	4
BP232EC2	Elective Course III b) Intellectual Property Rights		
BP232EC3	Elective Course III c) Applied bioinformatics		
BP232EC4	Elective Course IV: a) <b>Research methodology, computer applications &amp; bioinformatics</b>	2	4
BP232EC5	Elective Course IV : b).Medicinal Botany		
BP232EC6	Elective Course IV : c) Phytochemistry		
BP232SE1	Skill Enhancement Course I: Nursery and Gardening	2	2
	<b>Total</b>	<b>22</b>	<b>30</b>

## Semester III

Course Code	Title of the Course	Credits	Hours / Week
BP233CC1	Core Course VI: Cell and Molecular Biology	5	6
BP233CC2	Core Course VII: Genetics, Plant Breeding and Biostatistics	5	6
BP233CC3	Core Course VIII: Recombinant DNA Technology	5	6
BP233CP1	Core Lab Course III: Laboratory course Covering Core Papers VI, VII and VIII	4	6
BP233EC1	Elective Course V: a)Secondary Plant Products and Fermentation Technology	3	3
BP233EC2	Elective Course V: b) Applied plant cell and tissue culture		
BP233EC3	Elective Course V: c) Entrepreneurial opportunities in Botany		
BP233SE1	Skill Enhancement Course II: Agriculture and Food Microbiology	2	3
BP233IS1	Internship/ Industrial Activity	2	-
	<b>Total</b>	<b>26</b>	<b>30</b>

## Semester IV

Course Code	Title of the Course	Credits	Hours / Week
BP234CC1	Core Course IX: Plant Physiology and Metabolism	4	5
BP234CC2	Core Course X: Biochemistry and Applied Biotechnology	4	5
BP234CP1	Core Course IV : Laboratory course Covering Core Papers IX, and X	2	3
BP234EC1	Elective Course VI: a) Organic farming	3	4
BP234EC2	b) Forestry and wood technology		
BP234EC3	c) Gene cloning and gene therapy		
BP234EC2	Elective Course VI: b) Forestry and wood technology c) Gene cloning and gene therapy		
BP234EC3	Elective Course VI: c) Gene cloning and gene therapy		
BP234PW1	Core Project	7	9
BP234SE1	Skill Enhancement Course III: Training for Competitive examination - Botany for NET/UGC-CSIR/SET/TRB	2	4
BP234EA1	Extension Activity	1	-
	<b>Total</b>	<b>23</b>	<b>30</b>
	<b>TOTAL</b>	<b>120</b>	<b>91</b>

Item 10 /BOS 2023.05/12: Classification of courses as New courses/ Multidisciplinary courses/ Industry 4.0

UG Courses:

S.No	Course Code	Title of the Course	New Courses	Multidisciplinary courses	Industry 4.0
1.	BU231CC1	Core Course I: Plant Diversity -I- Algae	✓		
2.	BU231CP1	Core Lab Course I: Plant Diversity - I- Algae	✓		
3.	BU231EC1	Elective Course I: Allied Botany-I	✓		
4.	BU231EP1	Elective Lab Course I: Allied Botany Practical	✓		

5.	BU231NM1	Non Major Elective NME I: Nursery and Landscaping	✓	✓	
6.	BU231FC1	Foundation Course: Basics of Botany	✓		
7.	BU232CC1	Core Course III: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens	✓		
8.	BU232CP1	Core Lab Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	✓		
9.	BU232EC1	Elective Course II: Allied Botany-II	✓		
10.	BU232NM1	Non Major Elective NME II: Mushroom Cultivation	✓		
11.	BU232SE1	Skill Enhancement Course SEC I: Botanical Garden and Landscaping	✓	✓	✓

## PG Courses:

S.No	Title of the course	Course Code	New Courses	Multidisciplinary courses	Industry 4.0
1.	Core Course I: Plant Diversity-I Algae, Fungi, Lichens and Bryophytes	BP231CC1	✓		
2.	Core Course II: Plant Diversity - II: Pteridophytes, Gymnosperms and Paleobotany	BP231CC2	✓		
3.	Core Course I: Laboratory course- I: Covering Core Papers - I and II	BP231CP1	✓		

4.	Elective I: a) Microbiology, immunology and plant pathology	BP231EC1	✓	✓	
5.	b) Conservation of natural resources and policies	BP231EC2	✓		
6.	c) Mushroom cultivation	BP231EC3	✓		
7.	Elective II: a) Ethnobotany, naturopathy and Traditional Healthcare	BP231EC4	✓		
8.	b) Algal Technology	BP231EC5	✓		
9.	c) Herbal Technology	BP231EC6	✓		
10.	Core Course III: Taxonomy of Angiosperms and Economic Botany	BP232CC1	✓		
11.	Core Course V: Plant Anatomy and Embryology of angiosperms	BP232CC2	✓		
12.	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	BP232CC3	✓		
13.	Core Lab Course II: Lab Course (for Core III, IV & V)	BP232CP2	✓		
14.	Elective III: a)	BP232EC1	✓		

	Biostatistics				
15.	b) Intellectual Property Rights	BP232EC2	✓		
16.	c) Applied Bioinformatics	BP32EC3	✓	✓	✓
17.	Elective IV: a) Research methodology, computer applications & bioinformatics	BP232EC4	✓	✓	✓
18.	b) Medicinal Botany	BP232EC5	✓		
19.	c) Phytochemistry	BP232EC6	✓		
20.	Skill Enhancement Course II: Nursery and Gardening	BP232SE1	✓		

**Item 11/BOS 2023.05/13: Classification of Courses as Skill Development/ Employability/ Entrepreneurship**  
UG

S.No	Course Code	Title of the Course	Skill development	Employment	Entrepreneurship
1.	BU231CC1	Core Course I: Plant Diversity -I- Algae	✓	✓	✓
2.	BU231CP1	Core Lab Course I: Plant Diversity -I- Algae	✓	✓	✓
3.	BU231EC1	Elective Course I: Allied Botany-I	✓	✓	✓
4.	BU231EP1	Elective Lab Course I: Allied Botany Practical	✓		✓
5.	BU231NM1	Non Major Elective NME I: Nursery and Landscaping			✓
6.	BU231FC1	Foundation Course	✓	✓	✓
7.	BU232CC1	Core Course III: Plant Diversity II- Fungi, Bacteria, Viruses, Plant	✓	✓	✓

8.	BU232CP1	Core Lab Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	✓	✓	✓
9.	BU232EC1	Elective Course II: Allied Botany-II	✓	✓	✓
10.	BU232EP1	Elective Lab Course II: Allied Botany Practical	✓	✓	✓
11.	BU232NM1	Non Major Elective NME II: Mushroom Cultivation	✓	✓	✓
12.	BU232SE1	Skill Enhancement Course SEC I: Botanical Garden and Landscaping	✓	✓	✓

PG

S. No	Title of the course	Course Code	Skill Development	Employ ability	Entrepreneurship
1.	Core Course I: Plant Diversity-I Algae, Fungi, Lichens and Bryophytes	BP231CC1	✓	✓	✓
2.	Core Course II: Plant Diversity - II: Pteridophytes, Gymnosperms and Paleobotany	BP231CC2	✓	✓	✓
3.	Core Course I: Laboratory course- I: Covering Core Papers - I and II	BP231CP1	✓	✓	✓
4.	Elective I: a) Microbiology, immunology and plant pathology	BP231EC1	✓	✓	✓
5.	b) Conservation of natural resources and policies	BP231EC2	✓	✓	✓
6.	c) Mushroom cultivation	BP231EC3	✓	✓	✓
7.	Elective II: a)Ethnobotany, naturopathy and Traditional Healthcare	BP231EC4	✓	✓	✓
8.	b)Algal Technology	BP231EC5	✓	✓	✓

9.	c) Herbal Technology	BP231EC6	✓	✓	✓
10.	Core Course III: Taxonomy of Angiosperms and Economic Botany	BP232CC1	✓	✓	✓
11.	Core Course IV: Plant Anatomy and Embryology of angiosperms	BP232CC2	✓	✓	✓
12.	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	BP232CC3	✓	✓	✓
13.	Core Lab Course II: Lab Course (for Core III, IV & V)	BP232CP2	✓	✓	✓
14.	Elective III: a) Biostatistics	BP232EC1	✓	✓	✓
15.	b) Intellectual Property Rights	BP232EC2	✓	✓	✓
16.	c) Applied bioinformatics	BP32EC3	✓	✓	✓
17.	Elective IV: a) Research methodology, computer applications & bioinformatics	BP232EC4	✓	✓	✓
18.	b) Medicinal Botany	BP232EC5	✓	✓	✓
19.	c) Phytochemistry	BP232EC6	✓	✓	✓
20.	Skill Enhancement Course II: Nursery and Gardening	BP232SE1	✓	✓	✓

**Item 12/BOS 2023.05/14: Classification of Courses as Local /National/ Regional/ Global**  
UG

S.No	Course Code	Title of the Course	Local	Natio nal	Regio nal	Global
1.	BU231CC1	Core Course I: Plant Diversity -I- Algae	✓	✓	✓	✓
2.	BU231CP1	Core Lab Course I: Plant Diversity -I- Algae	✓	✓	✓	✓
3.	BU231EC1	Elective Course I: Allied Botany-I	✓	✓	✓	✓
4.	BU231EP1	Elective Lab Course I: Allied Botany Practical	✓		✓	✓
5.	BU231NM1	Non Major Elective NME I: Nursery and Landscaping	✓	✓	✓	✓
6.	BU231FC1	Foundation Course	✓	✓	✓	✓
7.	BU232CC1	Core Course III: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens	✓	✓	✓	✓
8.	BU232CP1	Core Lab Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	✓	✓	✓	✓
9.	BU232EC1	Elective Course II: Allied Botany-II	✓		✓	✓
10.	BU232EP1	Elective Lab Course II: Allied Botany Practical	✓	✓	✓	✓
11.	BU232NM1	Non Major Elective NME II: Mushroom Cultivation	✓	✓	✓	✓
12.	BU232SE1	Skill Enhancement Course SEC I: Botanical Garden and Landscaping	✓		✓	✓



PG

S. No	Title of the course	Course Code	Local	National	Regional	Global
1.	Core Course I: Plant Diversity-I Algae, Fungi, Lichens and Bryophytes	BP231CC1	✓	✓	✓	✓
2.	Core Course II: Plant Diversity - II: Pteridophytes, Gymnosperms and Palaeobotany	BP231CC2	✓	✓	✓	
3.	Core Course I: Laboratory course- I: Covering Core Papers - I and II	BP231CP1	✓	✓		✓
4.	Elective I: a) Microbiology, immunology and plant pathology	BP231EC1	✓	✓		✓
5.	b) Conservation of natural resources and policies	BP231EC2		✓		✓
6.	c) Mushroom cultivation	BP231EC3	✓	✓	✓	✓
7.	Elective II: a) Ethnobotany, naturopathy and Traditional Healthcare	BP231EC4	✓	✓		✓
8.	b) Algal Technology	BP231EC5	✓	✓	✓	✓
9.	c) Herbal Technology	BP231EC6	✓	✓	✓	✓
10.	Core Course III: Taxonomy of Angiosperms and Economic Botany	BP232CC1	✓	✓	✓	✓
11.	Core Course V: Plant Anatomy and Embryology of angiosperms	BP232CC2	✓	✓	✓	✓
12.	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	BP232CC3	✓	✓	✓	✓

13.	Core Lab Course II: Lab Course (for Core III, IV& V)	BP232CP2	✓	✓	✓	✓
14.	Elective III: a)Biostatistics	BP232EC1	✓	✓	✓	
15.	b) Intellectual Property Rights	BP232EC2	✓	✓	✓	✓
16.	c) Applied bioinformatics	BP32EC3	✓	✓		✓
17.	Elective IV: a)Research methodology, computer applications & bioinformatics	BP232EC4	✓	✓	✓	✓
18.	b) Medicinal Botany	BP232EC5	✓	✓	✓	
19.	c) Phytochemistry	BP232EC6	✓	✓	✓	✓
20.	Skill Enhancement Course II :Nursery and Gardening	BP232SE1	✓	✓	✓	

**Item 13/BOS 2023.05/15: Approval of Classification of Courses as Cross cutting issues - Gender Equity/ Environmental Sustainability/ Human Values/ Professional Ethics/ Indian Knowledge System**

UG

Gender Equity - Nil

Human Values - Nil

Professional Ethics - Nil

Indian Knowledge System - Nil

S. No	Course Code	Title of the Course	Environmental Sustainability
1.	BU231CC1	Core Course I: Plant Diversity -I- Algae	✓
2.	BU231CP1	Core Lab Course I: Plant Diversity -I- Algae	✓
3.	BU231EC1	Elective Course I: Allied Botany-I	✓
4.	BU231EP1	Elective Lab Course I: Allied Botany Practical	✓
5.	BU231NM1	Non Major Elective NME I: Nursery and Landscaping	✓
6.	BU231FC1	Foundation Course	✓
7.	BU232CC1	Core Course III: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens	✓
8.	BU232CP1	Core Lab Course II: Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	✓
9.	BU232EC1	Elective Course II: Allied Botany-II	✓
10.	BU232EP1	Elective Lab Course II: Allied Botany Practical	✓
11.	BU232NM1	Non Major Elective NME II: Mushroom Cultivation	✓
12.	BU232SE1	Skill Enhancement Course SEC I: Botanical Garden and Landscaping	✓

PG

Gender Equity - Nil

Human Values - Nil

S. No	Title of the course	Course Code	Environmental Sustainability	Professional Ethics	Indian Knowledge System
1.	Core Course I: Plant Diversity-I Algae, Fungi, Lichens and Bryophytes	BP231CC1	✓		
2.	Core Course II: Plant Diversity - II: Pteridophytes, Gymnosperms and Paleobotany	BP231CC2	✓		
3.	Core Course I: Laboratory course- I: Covering Core Papers - I and II	BP231CP1	✓	✓	
4.	Elective I: a) Microbiology, immunology and plant pathology	BP231EC1	✓		
5.	b) Conservation of natural resources and policies	BP231EC2	✓	✓	
6.	c) Mushroom cultivation	BP231EC3	✓	✓	
7.	Elective II: a) Ethnobotany, naturopathy and Traditional Healthcare	BP231EC4	✓		✓
8.	b) Algal Technology	BP231EC5	✓		
9.	c) Herbal Technology	BP231EC6	✓	✓	✓
10	Core Course III: Taxonomy of Angiosperms and Economic Botany	BP232CC1	✓	✓	
11	Core Course V: Plant Anatomy and Embryology of angiosperms	BP232CC2	✓		
12	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	BP232CC3	✓		

13	Core Lab Course II: Lab Course (for Core III, IV& V)	BP232CP2	✓		
14	Elective III: a)Biostatistics	BP232EC1	✓		
15	b) Intellectual Property Rights	BP232EC2		✓	
16	c) Applied bioinformatics	BP32EC3	✓		
17	Elective IV: a)Research methodology, computer applications & bioinformatics	BP232EC4	✓		
18	b) Medicinal Botany	BP232EC5	✓		✓
19	c) Phytochemistry	BP232EC6	✓		✓
20	Skill Enhancement Course II : : Nursery and Gardening	BP232SE1	✓		
21	Life Skill Training (LST) – I	PG23LST1	✓		

**Item 14/BOS 2023.05/16: Recommendation of books and journals for UG and PG**

**UG**

Rheede

Journal of Economic and Taxonomic Botany

Environmental and Experimental Botany

**PG**

Indian Journal of Traditional Knowledge

Indian Hydrobiology

International Journal of Biological Macromolecule

Microbiology - Prescott

**Item 15/BOS 2023.05/17: Suggestions for innovative teaching and evaluation techniques for UG and PG**

UG

Virtual Labs

Activity Based Learning

PG

Blended Learning

Flipped Class Room

**Item 16/BOS 2023.05/18: Conduct of seminars/Workshops in collaboration with Government Agents/ Universities/ NGOs**

Collaboration with Indian Academy of Science for a Taxonomy workshop in July, 2023

**Item 17/BOS 2023.05/19: New measures to be taken by the Department**

Botany students club can be formed

Staff exchange program will be implemented

Student Entrepreneurial activity will be enhanced

**Item 18/BOS 2023.05/20: Feedback Action Taken**

Department	Stakeholders	Feedback received	Action Taken
Botany	Students	Reduce the syllabus in Microbiology and Plant Pathology Practical content in Plant Diversity - II is heavy	Syllabus was reduced Practical content in Plant Diversity - II is reduced
2.	Parents	Skill based courses can be included	Skill based courses were offered
3.	Teacher	Semester wise practical can be encouraged	Semester wise practical was executed
4.	Alumni	More field visits needed	Importance were given for visits

**Feedback from Student representative:**

- Internship must be with central universities
- Placement opportunities can be increased
- More field visits needed

**Name of the Student: R. Ackcilin Seki (UG)**

*R. Ackcilin Seki*

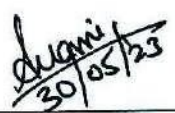
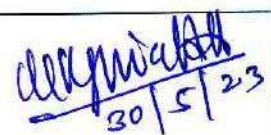


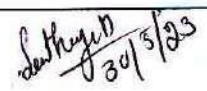
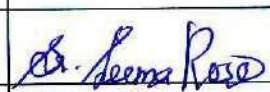
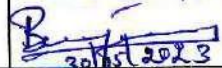

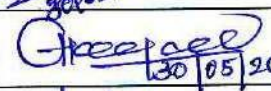
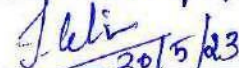

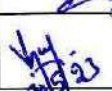
**M. Manya Das (PG)**

*Manya Das*

**Item 19/BOS 2023.05/21: Next meeting of the BoS**

The board members suggested to have next BoS meeting in December 2023

**Item 20/BOS 2023.05/22: Any Other –Nil**

Sl.No	Name of the Members	Designation	Signature
1.	Dr. A. Anami Augustus Arul (Chair Person)	Assistant Professor & Head, Holy Cross College (Autonomous), Nagercoil-4	 30/05/23
2.	Dr. S.R. Senthil Kumar (University Nominee)	Assistant Professor & Head, Department of Botany, St. Joseph's College, Tiruchirappalli - 620002	
3.	Dr. M. Reginald Appavoo (Subject Expert)	Associate Professor, Scott Christian College (Autonomous), Nagercoil - 629001	 30/5/23
4.	Dr. M. Johnson, (Subject Expert)	Assistant Professor in Botany, Director, Centre for Plant Biotechnology, Department of Botany, St. Xavier's College (Autonomous), Palayamkottai	 30/05/23
4.	Mr.S. Prakash (Industrialist)	Principal Scientist, Finura Biotech, Finura Garden, 11 - 8J, Loyola College Road, Thovallai. Kanyakumari District.	 30/05/23
5.	Ms.B.Santhiya, (Alumnae)	Research Scholar, Scott Christian College, Nagercoil	 30/5/23
6.	Dr. Sr. Leema Rose (Member)	Assistant Professor, Holy Cross College, Nagercoil.	
7.	Dr. Bojasa A. Rosy (Member)	Assistant Professor, Holy Cross College, Nagercoil.	 30/5/2023
8.	Dr. A.R. Florence (Member)	Assistant Professor, Holy Cross College, Nagercoil	 30/05/2023
9.	Dr.J.Albino Wins (Member)	Assistant Professor, Holy Cross College, Nagercoil	 30/05/2023
10.	Dr. J. Celin Pappa Rani (Member)	Assistant Professor, Holy Cross College, Nagercoil	 30/5/23
11.	Dr. S. Kala Vetha Kumari (Member)	Assistant Professor, Holy Cross College, Nagercoil	 30/5/23
12.	Dr. W. Vincy (Member)	Assistant Professor, Holy Cross College, Nagercoil	 30/5/23