



## 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

2020 - 2021



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



Nationally Re-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 01.02.2021 at 9.30 AM via Google Meet -https://meet.google.com/chy-vhma-wit

#### Ref. No. BOT/BOS/ 2020-2021/14

#### Members:

Dr. C.Jespin Ida

- Chairperson& Head of the Department

Dr.S. Beschi Antony Rayan

- University Nominee

Dr.N. Vasudevan

- Subject Expert

Dr. V. Anand Gideon

- Subject Expert

Mr.K.P. Srinivasakumar

-Industrialist

Ms.M.M. Shyra

- Alumna

Dr. Sr. Leema Rose

- Member

Dr. A. Anami Augustus Arul

- Member

Dr. Bojaxa A. Rosy

- Member

Dr. A. R. Florence

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Dr. J. Albino Wins

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Dr. N. Benit

- Member

Dr. J. Celin Pappa Rani

- Member

#### Agenda

- Prayer
- 2. Welcome by the Chairperson
- 3. Reading of the minutes of the previous meeting
- 4. Restructuring/Revision of curriculum for UG
- 5. JJG-Syllabus for Semester III and IV
- 6. Restructuring / Revision of Curriculum of PG
- PG Syllabus for Semester III and IV
- 8. Classification of New Courses
- 9. Classification of courses as Employability / Entrepreneurship / Skill Development
- 10. Classification of courses as Local / National / Regional / Global
- Classification of courses as Crosscutting Issues Gender Equity / Environment and Sustainability / Human Values / Professional Ethics
- 12. Conduct of UG and PG Practical Examination
- 13. Recommendation of books and journals for UG and PG
- Conduct of seminars / workshops in collaborations with Government Agents / Universities / NGOs.
- 15. Suggestion for innovative teaching and evaluation techniques for UG and PG
- 16. New measures to be undertaken by the department
- 17. Feedback and action taken
- 18. Next Meeting of BoS
- 19. Any other.

The Board of Studies meeting commenced with a prayer by Dr. Sr. Leema Rose. The members of the board, the Chairperson, University Nomince, Subject experts, Industrialist, Alumna and faculty of the Department, were present for the meeting.

#### Chairperson's Address

The Chair Person and Head of the Department, Dr. C. Jespin Ida, welcomed the members and introduced them while briefing on the agenda for the conduct of this meeting. The following items in the Agenda were discussed by the members of the Board.

#### Item 01/BoS21.01/03: Approval of the minutes of the meeting held on 20.1.2020

Dr.C.Jespin Ida 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/BoS21.01/04:Restructuring/Revision of curriculum for UG

The overall structure of the curriculum framed in 2021 was accepted by the board with the following modifications.

- i. The Core and Elective courses were revised and modified for III and IV semesters.
- ii. The hours and credits were changed for Non-Major Elective Course because of the introduction of compulsory Professional English Course for I-IV Semesters.
- iii. Major Practicals were to be conducted during even semesters.
- iv. In SemesterV, instead of the Optional paper, project was introduced and the already existing SBC project in Semester V was changed into theory paper.
- v. Reduction in the hours and credits in the Non-Major Elective Courses.

### Item 03/BoS21.01/05: Approval of UG Syllabus for Semester III and IV

The BoS members approved the Courses in Semester III and Semester IV for UG programme.

i. The following courses during the III and IV semesters are revised/ modified based on the feedback from the students & Alumni.

| SI. | Semester | Paper  | Paper Title                               | Changes          |  |  |
|-----|----------|--------|---|------------------|--|--|
| No. |          | Code   |   | Removed (if any) | Addition (if any)                      |  |
| 1.  | III      | BC2031 | Major Core III – Archegoniate             | -                | Modification was carried out in Unit V |  |
| 2.  | III      | BC2032 | Elective I (a) – Herbal<br>Botany         | -                | New paper                              |  |
| 3.  | III      | BC2033 | Elective I (b) - Nursery and<br>Gardening | Unit II          | Unit II was changed                    |  |
| 4.  | Ш        | BC2034 | Elective I (c) – Agricultural<br>Botany   | Unit IV          | Unit IV – minor changes were made      |  |
| 5.  | Ш        | BA2031 | Allied II - Plant Diversity -             |                  | Plant Diversity -I                     |  |

|     |      |        | I(Algae, Fungi, Bryophyta<br>and Pteridophyta)                               | 35 ×               | (New Paper)   |
|-----|------|--------|--|--------------------|---|
| 6.  | IV   | BC2041 | Core IV – Plant Ecology<br>and Phytogeography                                | Unit I & IV        | Minor changes were made   |
| 7.  | IV . | BC2042 | Elective II (a) Biological Resources   | Unit I &III        | minor changes were made   |
| 8.  | IV   | BC2043 | Elective II (b) Food Science   | Unit II,<br>III& V | Unit – II, III & V –<br>minor changes were<br>made  |
| 9.  | IV   | BC2044 | Elective II (c) Biodiversity and Human Welfare                               | Unit I& IV         | Modifications were made   |
| 10. | IV   | BA2041 | Allied II - Plant Diversity – II and Plant Physiology                        | -                  | Plant Diversity – II and<br>Plant Physiology (New<br>Paper)                                       |
| 11. | IV   | BC20P2 | Major Practical Paper – II Archegoniate and Plant Ecology and Phytogeography | -                  | Modified according to the changes in syllabus   |
| 12, | IV   | BA20P2 | Allied II – Practical: Plant Diversity – I & II and Plant Physiology         |                    | Allied II – Practical: Plant Diversity – I & II and Plant Physiology (New combination of Courses) |

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|--------------------|-------|--------------------------|
| Value              | Added | Courses                  |

| Semester | Subject code | Name of the Course                        | Total hours | Credit |
|----------|--------------|---|-------------|--------|
| I/II     | VAB201       | Mushroom Culture Technology               | 30          | 1      |
| III/ IV  | VAB202       | Food Preservation Technology              | 30          | 1      |
| 1/11     | VAB203       | In Vitro Propagation                      | 30          | 1,     |
| III/IV   | VAB204       | Organic Farming                           | 30          | 1      |
| V/VI     | VAB205       | Microbial Technology                      | 30          | 1      |
| V/VI     | VAB206       | Flower, Foliage and Dry Stick Arrangement | 30          | 1      |

ii.BC2031- Major Core III Archegoniate - Unit V:Types and methods of fossilization was added.

iii.BC2032 – Elective I (a) Herbal Botany –a.Unit II: Introduction to Ayurvedic formulation with methods of preparation of Churna, Arista, Taila and Leyham were added and deletion of the topics Decoction, Infusion and extract for skin and hair care were made.

b. UnitIII: Study on the active principles and utilization of *Clerodendrumphlomidis* was replaced with *Curcuma longa*.

Study of drug yielding plant Rauwolfia serpentina was replaced with Ocimum sanctum.

- c. Unit V:Study on the cultivation of medicinal plants Strychnosnux-vomica and Acoruscalamus were replaced with Trigonella foenum-graecum and Zingiber officinale
- iv. BC2033 Elective I (b) -Nursery and Gardening Unit II which dealt with seed and its production was totally replaced with ornamental horticulture
- v.BC2034 -Elective I I- Agricultural Botany Unit IV: The topic 'Agriculture machinery' was introduced.
- vi.BA2031 Allied II: The existing course Taxonomy of Angiosperms and Plant Physiology has been changed to 'Plant Diversity-I'.
- vii.BC2041 Major Core IV Plant Ecology and Phytogeography –except Unit -V all the other units were rearranged and in Unit I the topic 'Mutualism' and in unit IV the topic 'components of ecosystem' were added.
- viii.BC2042 Elective II (a) Biological Resources- Unit I: The topic 'brief introduction of biological resources and types' were added. Unit III: The topic 'forest management and conservation', 'regeneration and sustainable utilization of forest resources' were added.

- ix. BC2043 Elective II (b) Food Science Unit III: the topic 'fermented food products' was shifted to Unit II and Unit III was completely revised. Unit-V: the topics 'Ethylalcohol' and 'Vinegar' were removed.
- x. BC2044Elective II I Biodiversity and Human Welfare Unit I: 'the topic Biodiversity: scope and types' and in Unit- IV the topics 'CITES, CBD and Rio de Janeiro, 2012' were added.

ix.BA2041 Allied II Cell Biology and Plant Anatomy has been changed to Plant Diversity – II and Plant Physiology

### Item 04/BoS21.01/06: Restructuring/Revision of curriculum for PG

The overall structure of the curriculum framed in 2021 was accepted by the board with the following modifications.

- The Core and Elective courses were revised and modified for III and IV semesters.
- ii. The hours and credits were changed for elective papers and project.
- iii. Major Core Practical were to be conducted during even semesters.

#### Item 05/BoS21.01/07: Approval of PG Syllabus for Semester III and IV

#### M.Sc. Botany

The BoS members approved the Papers in Sem III and Sem IV for PG programme.

i. The following courses during the III and IV semesters are revised / modified based on the feedback from the students & Alumni.

| SI. | Semester | mester Paper Paper Title Changes |   | Changes  |   |  |
|-----|----------|----------------------------------|---|--|---|--|
| No  |          | Code                             |   | Removed (if any)                               | Addition (if any)                             |  |
| 1.  | Ш        | PB2031                           | Core VII – Taxonomy of<br>Angiosperms         | Unit – II (few contents removed)               | Unit – II (few contents added)                |  |
| 2.  | Ш        | PB2032                           | Core VIII – Genetics and<br>Molecular Biology | Unit – II, III, IV,<br>and V, (few<br>contents | Unit – I, III, IV and V, (few contents added) |  |

|    |     |        |                          | removed)           |                      |
|----|-----|--------|--------------------------|--------------------|----------------------|
| 3. | III | PB2033 | Elective III (a) -       | Elective III (a) - | Elective III (a) -   |
|    |     |        | Horticulture             | Horticulture and   | Horticulture (New    |
|    |     |        |                          | Plant Breeding     | title and            |
|    |     |        |                          | (Title and         | modifications were   |
| -  |     |        |                          | contents           | made in all the five |
|    |     |        |                          | removed)           | units)               |
| 4. | IV  | PB2041 | Core IX – Plant          | Core IX – Plant    | Core IX – Plant      |
|    |     |        | Physiology               | Physiology and     | Physiology (New      |
|    |     |        |                          | Metabolism         | title added)         |
|    |     |        |                          | (Title only)       |                      |
| 5. | IV  | PB2042 | Core X – Plant Ecology   | Core X –           | Core X – Plant       |
|    |     |        | and Phytogeography       | Environment        | Ecology and Phyto    |
|    |     |        |                          | and                | geography (New       |
|    |     |        |                          | Conservation       | title added)         |
|    |     |        |                          | Biology (Title     |                      |
|    |     |        |                          | only)              |                      |
| 6. | IV  | PB2043 | Core XI – Biotechnology  | Core XI –          | Core XI –            |
|    |     |        | and Bioinformatics       | Applied            | Biotechnology and    |
|    |     |        |                          | Biotechnology      | Bioinformatics       |
|    |     |        |                          | (Title and Unit    | (New title and Unit  |
|    |     |        |                          | V removed)         | V newly added)       |
| 7. | IV  | PB2044 | Elective IV (a) –        | Elective IV (a) -  | Elective IV (a) -    |
|    |     |        | Phytochemistry and       | Industrial         | Phytochemistry and   |
|    |     |        | Pharmacognosy            | Microbiology       | Pharmacognosy        |
|    |     |        |                          | (Paper removed)    | (New paper added)    |
| 8. | IV  | PB2045 | Elective IV (b) -        | Elective IV (a) -  | Elective IV (b) -    |
|    |     |        | Entrepreneurial Botany   | Biostatistics and  | Entrepreneurial      |
|    |     |        |                          | Bioinformatics     | Botany (New paper    |
|    |     |        |                          | (Paper removed)    | added)               |
| 9. | IV  | PB20P3 | Practical III - Taxonomy | Practical III -    | Practical III -      |
|    |     |        | of Angiosperms &         | Taxonomy of        | Taxonomy of          |

| 9   |    |        | Genetics and Molecular Biology.  | Angiosperms and Economic Botany, Genetics and Molecular Biology  | Angiosperms & Genetics and Molecular Biology (New combination of Papers).  |
|-----|----|--------|--|--|--|
| 10. | IV | PB20P4 | Practical IV – Plant  Physiology, Plant Ecology and Phyto geography and Biotechnology and Bioinformatics | Practical IV - Plant Physiology and Metabolism, Environment and Conservation Biology and Applied Biotechnology | Practical IV – Plant Physiology, Plant Ecology and Phytogeography and Biotechnology and Bioinformatics (New combination of Papers) |

ii. In the 'Core paper VII – Taxonomy of Angiosperms,' rearrangement of contents in Unit – I and APG classification was added. In Unit II some additions (Taxonomic Evidences – Chemotaxonomy, Phytotaxonomy and Cytotaxonomy) and few contents were removed (Cladistics – phylogenetic approach of classification, species concept). In Unit – II, the molecular markers as taxonomic tools – RAPD, RFLP, AFLP and ISSR were replaced as molecular tools used in taxonomy. In Unit – III, objectives and importance of systematic botany was removed. In Unit III, IV and V, salient features are replaced as diagnostic features.

tii. In the 'Core paper VIII – Genetics and Molecular Biology,' some addition are made in Unit I (Linkage and crossing over, construction of chromosome map, and three point cross), some contents are replaced from Unit I to Unit II (Mutation – Types of mutation, molecular mechanism of mutation). In Unit – II few contents were deleted (dissociation and reassociation of kinetics of DNA); Tm value was added. In Unit – III, few contents were deleted (cloning vectors – plasmids, cosmids, phages, plasmids – characters of plasmids, types, copy number, PBR322, PUC9, M13, BAC, YAC, shuttle vectors, advantages of cloning vectors). Some additions are made (Super Vectors – Bacterial Artificial

Chromosomes, Yeast Artificial Chromosome). In Unit IV – some additions are made (posttranslational events, northern blotting, southern blotting, western blotting, FISH). In Unit V – some additions were made (Gene regulations in Prokaryotes; gene regulation in Eukaryotes).

- iv. The Title of the Elective paper 'Elective III (a) Horticulture and Plant Breeding 'is changed-into' Elective III (a) Horticulture.' All the five unites were modified.
- v. The Core paper 'Core IX Plant Physiology and Metabolism' is changed into 'Core IX Plant Physiology.'
- vi. The Core paper 'Core X Environment and Conservation Biology' is changed into 'Plant Ecology and Phytogeography.' In Unit I, applications of Ecology was deleted. In Unit II, the title gaseous cycle is removed.
- vii. The Core paper 'Core XI Applied Biotechnology' is changed into 'Core XI Biotechnology and Bioinformatics' and Unit V was changed. In Unit I, the title was given as rDNA technology. In Unit IV, the title was given as Pharmaceutical Biotechnology. In Unit V, the title is given as Bioinformatics and new contents are added (Bioinformatics: The internet, World Wide Web, search engines Primary nucleotide sequence databases Genbank, DDBJ; Primary protein sequence databases NCBI, PIR, EMBL; Sequence Analysis Pair-wise alignment; BLAST & types; Multiple sequence alignment; CADD).
- viii. The Elective paper 'Elective IV (a) Industrial Microbiology' is removed and replaced with 'Elective IV (a) Phytochemistry and Pharmacognosy.' All the five units were newly added.
- ix. The Elective paper 'Elective IV (b) Biostatistics and Bioinformatics' is removed and replaced with 'Elective IV (b) Entrepreneurial Botany.' All the five units were newly added.
- x. The Practical IV Plant Physiology and Metabolism, Environment and Conservation Biology and Applied Biotechnology is changed into Practical IV Plant Physiology, Plant Ecology and Phytogeography and Biotechnology and Bioinformatics.

Item 06/ BoS 20.01/08: Classification of Courses as New Courses B.Sc., Botany

| S. No | Course | Title of the Course                        | New      |
|-------|--------|--|----------|
|       | Code   |  | Course   |
| 9     | 5      |  | s        |
| 1.    | BC2031 | Major Core – III Archegoniate              |          |
| 2.    | BC2032 | Major – Elective I                         | 1        |
|       |        | (a) Herbal Botany                          |          |
| 3.    | BC2033 | (b) Nursery and Gardening                  | 1        |
| 4.    | BC2034 | (c) Agricultural Botany                    |          |
| 5.    | BA2031 | Allied II - Theory: Plant Diversity -I     | 1        |
|       |        | (Algae, Fungi, Bryophyta and               |          |
|       |        | Pteridophyta)                              |          |
| 6.    | BA20P2 | Allied II - Practical: Plant Diversity - I | 1        |
|       |        | (Algae, Fungi, Bryophyta and               |          |
|       |        | Pteridophyta)                              |          |
| 7.    | BC2041 | Major Core IV - Plant Ecology and          |          |
|       |        | Phytogeography                             |          |
| 8.    | BC2042 | Major – Elective II                        |          |
|       |        | (a) Biological Resources                   | :        |
| 9.    | BC2043 | (b) Food Science                           | <b>√</b> |
| 10.   | BC2044 | (c) Biodiversity and Human Welfare         |          |
| 11.   | BA2041 | Allied II - Plant Diversity-II and Plant   | 1        |
| į.    |        | Physiology                                 |          |
| 12.   | BC20P2 | Major Practical IV -Archegoniate           |          |
|       |        | &Plant Ecology and Phytogeography          |          |
| 13.   | BA20P2 | Allied II – Practical: Plant Diversity – I | <b>√</b> |
|       |        | & II and Plant Physiology                  |          |

## M.Sc., Botany

| S. No | Course<br>Code | Title of the Course   | New<br>Courses |
|-------|----------------|---|----------------|
| 1.    | PB2031         | Core VII- Taxonomy of Angiosperms   |                |
| 2.    | PB2032         | Core VIII- Genetics and Molecular<br>Biology  |                |
| 3.    | PB2033         | Elective III-(a)Horticulture  | 1              |
| 4.    | PB2034         | Elective III – (b)Forestry  |                |
| 5.    | PB20PR         | Project   |                |
| 6.    | PB2041         | Core IX- Plant Physiology   | 1              |
| 7.    | PB2042         | Core X–Plant Ecology and Phytogeography   |                |
| 8.    | PB2043         | Core XI–Biotechnology& Bioinformatics   | 1              |
| 9.    | PB2044         | Elective IV-(a)Phytochemistry and Pharmacognosy   | 1              |
| 10.   | PB2045         | Elective IV-(b)Entrepreneurial Botany   | 1              |
| 11.   | PB20P3         | Practical III Taxonomy of Angiosperms & Genetics and Molecular Biology.                           |                |
| 12.   | PB20P4         | Practical IV-PlantPhysiology, Plant Ecology and Phytogeography and Biotechnology & Bioinformatics |                |

# Item 07/BoS21.01/09: Classification of courses as Employability/ Entrepreneurship/Skill development

## B.Sc., Botany

| S.<br>No | Course<br>Code | Title of the Course   | Employ-<br>ability | Entrepren<br>eurship | Skill<br>development |
|----------|----------------|---|--------------------|----------------------|----------------------|
| 1.       | -B€203Î        | Major Core – III Archegoniate   | 1                  |                      | 1                    |
| 2.       | BC2032         | Major – Elective I  (a) Herbal Botany   | 1                  |                      | 1                    |
| 3.       | BC2033         | (b) Natural Resource<br>Management  | 1                  | 1                    | <b>V</b>             |
| 4.       | BC2034         | (c) Agricultural Botany   | 1                  | <b>V</b>             | 1                    |
| 5.       | BA2031         | Allied II – Theory: Plant Diversity -I (Algae, Fungi, Bryophyta and Pteridophyta) | 1                  | 1                    | 1                    |
| 6.       | BC20S1         | Plant Resource Utilization  | 1                  | 1                    | 1                    |
| 7.       | BC2041         | Major Core IV – Plant Ecology<br>and Phytogeography                               | 1                  |                      | - 1                  |
| 8.       | BC2042         | Major – Elective II  (a) Biological Resources                                     | 1                  | 1                    | 1                    |
| 9.       | BC2043         | (b) Food Science  | 1                  | <b>V</b>             | 1                    |
| 10.      | BC2044         | (c) Biodiversity and Human<br>Welfare   | <b>√</b>           |                      | 1                    |
| 11.      | BC20P2         | Major Practical IV – Archegoniate &Plant Ecology and Phytogeography               |                    |                      | 1                    |
| 12.      | BA2041         | Allied II - Plant Diversity-II<br>and Plant Physiology                            | 1                  |                      | 1                    |
| 13.      | BA20P2         | Allied II – Practical: Plant Diversity – I & II and Plant Physiology              | 1                  |                      | 1                    |
| 14.      | BC20S2         | Algal Biotechnology   | 1                  | <b>1</b>             | 1                    |

## M.Sc., Botany

| S. No | Course<br>Code | Title of the Course  | Emplo<br>yability | Entrep<br>reneurs<br>hip | Skill<br>develop<br>ment |
|-------|----------------|--|-------------------|--------------------------|--------------------------|
| 1-90- | -PB2031        | Core VII- Taxonomy of Angiosperms  | 1                 | 1                        | 1                        |
| 2.    | PB2032         | Core VIII- Genetics and Molecular<br>Biology   | 1                 | 1                        | 1                        |
| 3.    | PB2033         | Elective III–(a)Horticulture   |                   |                          | J                        |
| 4.    | PB2034         | Elective III – (b)Forestry   | 1                 | 1                        | 1                        |
| 5.    | PB20PR         | Project  |                   |                          | 1                        |
| 6.    | PB20S1         | Biology for competitive exam – I   | 1                 |                          | 1                        |
| 7.    | PB2041         | Core IX- Plant Physiology  | 1                 | - 1                      | J                        |
| 8.    | PB2042         | Core X-Plant Ecology<br>and Phytogeography   | 1                 |                          | 1                        |
| 9.    | PB2043         | Core XI–Biotechnology& Bioinformatics  |                   |                          | 1                        |
| 10.   | PB2044         | Elective IV-(a)Phytochemistry and Pharmacognosy  |                   | 1                        | <b>V</b>                 |
| 11.   | PB2045         | Elective IV-(b) Entrepreneurial Botany   |                   | 1                        | 1                        |
| 12.   | PB20P3         | Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.                            | 1                 | 1                        | J                        |
| 13.   | PB20P4         | Practical IV - Plant Physiology, Plant Ecology and Phytogeography and Biotechnology & Bioinformatics | 1                 | 1                        | 1                        |
| 14.   | PB20S2         | Biology for competitive exam - II  |                   | 1                        | 1                        |

# Item 08/ BoS 20.01/10: Classification of the courses as local/national/ regional/ global B.Sc., Botany

The members of the Board classified the UG courses in the new structure based on local/national/regional/global

| S.  | Course<br>Code | Title of the Course   | Local | National | Regional | Global |
|-----|----------------|---|-------|----------|----------|--------|
| 1.  | BC2031         | Major Core – III Archegoniate   | 1     | 1        | 1        | 1      |
| 2.  | BC2032         | Major – Elective I  (a) Herbal Botany   | 1     | <b>V</b> | J        | 1      |
| 3.  | BC2033         | (b) Natural Resource Management   | 1     | 1        | 1        | 1      |
| 4.  | BC2034         | (c) Agricultural Botany   | 1     | 1        | 1        | 1      |
| 5.  | BA2031         | Allied II – Theory: Plant Diversity -I (Algae, Fungi, Bryophyta and Pteridophyta) | 1     | <b>V</b> | <b>✓</b> | 1      |
| 6.  | BC20S1         | Plant Resource Utilization  | 1     |          |          |        |
| 7.  | BC2041         | Major Core IV – Plant Ecology<br>and Phytogeography                               | 1     | ✓ .      | <b>J</b> | 1      |
| 8.  | BC2042         | Major – Elective II  (a) Biological Resources                                     | 1     |          | 1        | 1      |
| 9.  | BC2043         | (b) Food Science  | 1     | 1        | 1        | 1      |
| 10. | BC2044         | (c) Biodiversity and Human<br>Welfare   | 1     | 1        | 1        | 1      |
| 11. | BC20P2         | Major Practical IV – Archegoniate<br>&Plant Ecology and<br>Phytogeography         | 1     | 1        | 1        | 1      |
| 12. | BA2041         | Allied II - Plant Diversity-II and<br>Plant Physiology                            | 1     |          | 1        | 1      |
| 13. | BA20P2         | Allied II – Practical: Plant Diversity – I & II and Plant Physiology              | 1     | <b>V</b> | 1        | 1      |
| 14. | BC20S2         | Algal Biotechnology   | 1     |          |          |        |

M.Sc., Botany

The members of the Board classified the PG courses in the new structure based on local/
national/regional/global

| S. No | Course<br>Code                                   | Title of the Course  | Local | Nation<br>al | Region<br>al | Global |
|-------|--|--|-------|--------------|--------------|--------|
| 1.    | PB2031   | Core VII- Taxonomy of Angiosperms  | 1     | 1            |              | 1      |
| 2.    | PB2032 Core VIII- Genetics and Molecular Biology |  | 1     | 1            | 1            | 1      |
| 3.    | PB2033   | Elective III-(a)Horticulture   |       | 1            | 1            | 1      |
| 4.    | PB2034   | Elective III – (b)Forestry   |       | 1            | 1            | 1      |
| 5.    | PB20PR   | Project  |       |              |              |        |
| 6.    | PB20S1   | Biology for competitive exam – I   | 1     | 1            |              |        |
| 7.    | PB2041   | Core IX- Plant Physiology  | 1     | 1            | 1            | 1      |
| 8.    | PB2042   | Core X-Plant Ecology and Phytogeography  | 1     | 1            |              | 1      |
| 9.    | PB2043   | Core XI-Biotechnology& Bioinformatics  | 1     | 1            | J            |        |
| 10.   | PB2044   | Elective IV-(a)Phytochemistry and Pharmacognosy  | 1     | 1            | 1            |        |
| 11.   | PB2045   | Elective IV-(b) Entrepreneurial Botany   | 1     |              | <b>V</b>     |        |
| 12.   | PB20P3   | Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.                            | 1     |              | 1            | 1      |
| 13.   | PB20P4   | Practical IV - Plant Physiology, Plant Ecology and Phytogeography and Biotechnology & Bioinformatics | 1     | 1            | 1            |        |
| 14.   | PB20S2   | Biology for competitive exam – II  | 1     | 1            | 1            | 1      |

# Item 09/BoS 20.01/11: Classification of courses as Crosscutting Issues - Gender equity/Environment and sustainability/Human Values/Professional Ethics

## B.Sc., Botany

Gender equity - Nil

Human Values - Nil

| S.<br>No | Course<br>Code | Title of the Course   | Environment and sustainability | Professional<br>Ethics |
|----------|----------------|---|--------------------------------|------------------------|
| 1.       | BC2031         | Major Core – III Archegoniate   | 1                              |                        |
| 2.       | BC2032         | Major – Elective I  (a) Herbal Botany   | 1                              | 1                      |
| 3.       | BC2033         | (b) Natural Resource Management   | 1                              | 1                      |
| 4.       | BC2034         | (c) Agricultural Botany   | 1                              | 1                      |
| 5.       | BA2031         | Allied II – Theory: Plant Diversity -I (Algae, Fungi, Bryophyta and Pteridophyta) | 1                              |                        |
| 6.       | BC20S1         | Plant Resource Utilization  | 1                              |                        |
| 7.       | BC2041         | Major Core IV – Plant Ecology and Phytogeography                                  | 1                              |                        |
| 8.       | BC2042         | Major – Elective II  (a) Biological Resources                                     |                                | 1                      |
| 9.       | BC2043         | (b) Food Science  |                                | 1                      |
| 10.      | BC2044         | (c) Biodiversity and Human Welfare  | 1                              | 1                      |
| 11.      | BA2041         | Allied II - Plant Diversity-II and Plant Physiology                               | 1                              |                        |
| 12.      | BC20P2         | Major Practical IV – Archegoniate & Plant Ecology and Phytogeography              | 4                              |                        |
| 13.      | BA20P2         | Allied II – Practical: Plant Diversity – I & II and Plant Physiology              | 1                              |                        |
| 14.      | BC20S2         | Algal Biotechnology   | 1                              | 1                      |

M.Sc., Botany

Gender equity - Nil

| S. No | Course<br>Code | Title of the Course  | Environment and sustainability | Human<br>Values | Professional Ethics |
|-------|----------------|--|--------------------------------|-----------------|---------------------|
| 1.    | ~PB2031        | Core VII- Taxonomy of Angiosperms  |                                |                 | 18:                 |
| 2.    | PB2032         | Core VIII– Genetics and Molecular<br>Biology   | 1                              |                 |                     |
| 3.    | PB2033         | Elective III–(a)Horticulture   | 1                              |                 |                     |
| 4.    | PB2034         | Elective III – (b)Forestry   | 1                              |                 |                     |
| 5.    | PB20PR         | Project  |                                |                 |                     |
| 6.    | PB20S1         | Biology for competitive exam - I   | 1                              |                 |                     |
| 7.    | PB2041         | Core IX- Plant Physiology  | 1                              |                 |                     |
| 8.    | PB2042         | Core X-Plant Ecology and Phytogeography  | 1                              |                 |                     |
| 9.    | PB2043         | Core XI-Biotechnology& Bioinformatics  | 1                              |                 | 1                   |
| 10.   | PB2044         | Elective IV-(a)Phytochemistry and Pharmacognosy  | 1                              |                 |                     |
| 11.   | PB2045         | Elective IV-(b) Entrepreneurial Botany   | 1                              | 1               |                     |
| 12.   | PB20P3         | Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.                            | 1                              |                 |                     |
| 13.   | PB20P4         | Practical IV - Plant Physiology, Plant Ecology and Phytogeography and Biotechnology & Bioinformatics | 1                              |                 |                     |
| 14.   | PB20S2         | Biology for competitive exam – II  | 1                              |                 |                     |

## Item 10/BoS 21.01/12: Conduct of UG and PG Practical examination

The board members suggested to conduct both UG and PG major Practical to conduct during even semesters.

### Item 11/BoS 21.01/13 Recommendation of books and journals for UG and PG

The members suggested to subscribe the following journals for the department from the general library:

- i. Journal of Biology ISSN: 1475-4924
- ii. Journal of Advanced Research in Biotechnology ISSN: 2475-4714

The Bo8 members recommended the following books based on the modified/Revised syllabus for M.Sc. Botany

- David Hoffmann, 2003. Medical Herbalism: The Science and Practice of Herbal Medicine. Simon & Schuster Publishers, India.
- J. Pursell, 2016. The Herbal Apothecary: 100 Medicinal Herbs and How to Use Them. Timber Press. Publishing. Portland, Oregon.
- Amritpal Singh, 2011. Herbalism, Phytochemistry and Ethnopharmacology. CRC Press Taylor & Francis Group, LLC.
- iv. Sharada L Deore, 2019. Pharmacognosy & Phytochemistry A Companion Handbook. Bsp Books Pvt. Limited, Hyderabad

## Item 12/BoS21.01/14: Conduct of seminars/ workshops in collaboration with Government Agents/Universities/NGOs

Workshops and seminars by Faculty from Universities of Tamilnadu and Kerala were suggested.

## Item 13/BoS 21.01/15: Suggestions for innovative teaching and evaluation techniques for UG and PG

The BoS members suggested the following methodologies to enhance teaching, learning and evaluation.

i. Use of the participative learning techniques such as Flip Class, Group discussion, field visit, memory game and case study.

ii. New mode of evaluation which rely on the creativity rather than memorizing, group activities such as Quizizz, Socrative, Google forms and Open book test.

## Item 14/BoS 21.01/16: New Measuresto be undertaken by the department

- i. Organize innovative student projects (DISCOVER)
- ii. Organize programme for school teachers.
- iii. Organize programme for school children.
- iv. Organize programmesto the neighborhoodin-order to enhance entrepreneurship.

#### Item15/BoS20.01/17: Feedback Action Taken

| Department | Stakeholders | Feedback received   | Action Taken  |  |
|------------|--------------|---|---|--|
| Botany     | Students     | Introduce SET/NET content in the syllabus                       | SET/NET syllabus<br>is introduced as Self<br>Learning Course. |  |
|            | Parents      | Satisfied with the curriculum and discipline of the department. | *   |  |
|            | Teacher      | More weightage can be given for entrepreneurial courses         | Entrepreneurial Botany paper was implemented.                 |  |
|            | Alumni       | Field work related courses can be introduced.                   | Implemented   |  |

### Feedback from Student Representatives

- Mandatory Job oriented courses can be introduced.
- Introduce new courses focusing on competitive examinations.

Name of the Students: R. Nithisha (UG)

Nithisha. 2.

Amaliya Afrin (PG) Amaliza Afrin

## Item 16/BoS 21.01/18: Next Meeting of the BoS

The members of the board suggested to have the next meeting of BoS in the month of August, 2021.

Item 17/BoS 21.01/19: Any other - Nil

## Item 10 /BoS 20.01/14: Next Meeting of the BoS

The members of the board suggested to have the next meeting of BoS in the first week of January 2021

The meeting ended with vote of thanks by the HoD, the Chairperson of the BoS at 3.45pm.

| Sl.No | Name of the Members        | Designation   | Signature  |
|-------|----------------------------|---|--|
| 1.    | Dr. C. Jespin Ida          | Associate Professor & Head,<br>Holy Cross College<br>(Autonomous),<br>Nagercoil-4                 | C. lesto 101/2020  |
| 2.    | Dr. S. Beschi Antony Rayan | Associate Professor & Head, Department of Botany, St. Xaviers College (Autonomous), Playamkottai. | Back 20 01 20 20   |
| 3.    | Dr. N. Vasudevan           | Head & Associate Professor,<br>Saraswathi Narayanan College,<br>Madurai – 22                      | 1. \w/ 20/01/26  |
| 4.    | Dr. V. Anand Gideon        | Associate Professor & Head,<br>Bisop Heber College<br>(Autonomous),<br>Tiruchirappalli – 620 017  | bollul doloil20  |
| 5.    | Dr. K.P. Srinivasakumar    | Chief Scientific Officer,<br>Inbiotics,<br>Nagercoil.   | _  |
| 6.    | Ms. M.M. Shyra             | M.Phil. Student,<br>Scott Christian College,<br>Nagercoil – 629 003                               | Louge N. M. 20 20  |
| 7.    | Mrs. J. Albino Wins        | Assistant Professor, Department of Botany, Holy Cross College (Autonomous), Nagercoil-4           | A001/2020  |
| 8.    | Dr. N. Benit               | Assistant Professor, Department of Botany, Holy Cross College (Autonomous), Nagercoil-4           | DI Abent Made  |
| 9.    | Dr. J. Celin Pappa Rani    | Assistant Professor, Department of Botany, Holy Cross College (Autonomous), Nagercoil-4           | J. CelinfappaRani<br>aD/ol/aldo                            |
| 10.   | Dr. G. Jerlin Deletta      | Assistant Professor, Department of Botany, Holy Cross College (Autonomous), Nagercoil-4           | J. CelinfappaRani do/ol/dobb  G. Sestin Doletta 20/01/2020 |