



# SEETHALAKSHMI RAMASWAMI COLLEGE

(Autonomous)

Affiliated to Bharathidasan University

Tiruchirappalli

Accredited with A+ by NAAC (4<sup>th</sup> Cycle)



## B.Sc. Botany

### Revised CBCS - OBE - BASED Curriculum Structure

(For students admitted from 2024 onwards)

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
I	I	Language-I		Course-I	6	3	EXT	25	75	100
	II	English-I		Course-I	6	3	EXT	25	75	100
	III	Core Course-I		Algae, Fungi and Bryophytes	7	6	EXT	25	75	100
	III	Core Practical-I		<b>Practical-I:</b> Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and Paleobotany	3	-	INT	-	-	-
	III	First Allied Course-I		Offered by the Department of Chemistry	4	3	EXT	25	75	100
	III	First Allied Practical-I		<b>Practical-I:</b> Offered by the Department of Chemistry	2	-	INT	-	-	-
	IV	VBE		Value Based Education	2	2	EXT	25	75	100
	<b>TOTAL</b>					<b>30</b>	<b>17</b>			
		EXTRA CREDIT COURSE		Communicative and Functional English offered by Department of English (MANDTORY)	2	2	INT	25	75	100

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
II	I	Language-II		Course-II	6	3	EXT	25	75	100
	II	English-II		Course-II	6	3	EXT	25	75	100
	III	Core Course-II		Pteridophytes, Gymnosperms and Paleobotany	7	6	EXT	25	75	100
	III	Core Practical-I		<b>Practical-I:</b> Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and Paleobotany	3	4	INT	40	60	100
	III	First Allied Course-II		Offered by the Department of Chemistry	4	3	EXT	25	75	100
	III	First Allied Practical-I		<b>Practical-I:</b> Offered by the Department of Chemistry	2	3	INT	40	60	100
	IV	EVS		Environmental Studies	2	2	EXT	25	75	100
	<b>TOTAL</b>					<b>30</b>	<b>24</b>			

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
III	I	Language-III		Course-III	6	3	EXT	25	75	100	
	II	English-III		Course-III	6	3	EXT	25	75	100	
	III	Core Course-III		Plant Anatomy and Embryology	6	6	EXT	25	75	100	
	III	Core Practical-II		<b>Practical-II:</b> Plant Anatomy, Embryology ,Cell Biology, Genetics and Biostatistics	2	-	INT	-	-	-	
	III	Second Allied Course-I		Offered by the Department of Zoology	4	3	EXT	25	75	100	
	III	Second Allied Practical-I		<b>Practical-I:</b> Offered by the Department of Zoology	2	-	INT	-	-	-	
	IV	NME-I*		Offered by other Departments	2	2	EXT	25	75	100	
	IV	SBE-I		Nursery techniques and Mushroom cultivation	2	2	EXT	25	75	100	
	<b>TOTAL</b>					<b>30</b>	<b>19</b>				<b>600</b>
			EXTRA CREDIT COURSE		<b>Internship-I</b> (II Semester vacation) <b>Online/Offline-Certificate, Report &amp; Photo (MANDATORY)</b>	-	1	INT	-	-	100
				Community Outreach Activity (II Semester vacation- <b>Report, Photo &amp; Feedback) (OPTIONAL)</b>	-	1	INT	-	-	100	

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
IV	I	Language-IV		Course-IV	6	3	EXT	25	75	100	
	II	English-IV		Course-IV	6	3	EXT	25	75	100	
	III	Core Course-IV		Cell Biology, Genetics and Biostatistics	6	6	EXT	25	75	100	
	III	Core Practical-II		<b>Practical-II:</b> Plant Anatomy, Embryology, Cell Biology, Genetics and Biostatistics	2	4	INT	40	60	100	
	III	Second Allied Course-II		Offered by the Department of Zoology	4	3	EXT	25	75	100	
	III	Second Allied Practical-I		<b>Practical-I:</b> Offered by the Department of Zoology	2	3	INT	40	60	100	
	IV	NME-II*		Offered by other Departments	2	2	EXT	25	75	100	
	IV	SBE-II		Biofertilizer and Biopesticides	2	2	EXT	25	75	100	
	<b>TOTAL</b>					<b>30</b>	<b>26</b>				<b>800</b>
			EXTRA CREDIT COURSE		Certificate Course (IKS)- <b>Offered by other Departments (beyond class hours) (MANDATORY)</b>	2	2	INT	25	75	100
				<b>Office Automation (MANDATORY)</b>	2	2	INT	25	75	100	
				<b>Internship-II (III Semester vacation)- Online/ Offline Certificate, Report &amp; Photo (OPTIONAL)</b>	-	1	INT	-	-	100	
<b>* Offered by the Department to the students of other disciplines</b>											

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
V	III	Core Course-V		Morphology, Taxonomy and Economic Botany	5	5	EXT	25	75	100	
	III	Core Course-VI		Biological Techniques	5	5	EXT	25	75	100	
	III	Core Course-VII		General Microbiology	5	5	EXT	25	75	100	
	III	Core Practical-III		<b>Practical-III:</b> Morphology, Taxonomy, Economic Botany, Biological Techniques and General Microbiology	6	4	INT	40	60	100	
	III	MBE-I		Environmental Biotechnology	5	4	EXT	25	75	100	
	IV	SBE-III		Preservation of fruits and vegetables	2	2	EXT	25	75	100	
	IV	SSD		Soft Skill Development	2	2	INT	25	75	100	
	<b>TOTAL</b>					<b>30</b>	<b>27</b>				<b>700</b>
			EXTRA CREDIT COURSE		Value Added Course-offered to the same department (beyond class hours) (MANDATORY)	2	2	INT	25	75	100
					Web designing (MANDATORY)	2	2	INT	25	75	100
				Internship- III (IV Semester vacation)-Online/Offline Certificate, Report & Photo (OPTIONAL)	-	1	INT	-	-	100	
				Online Course (MOOC/Swayam/NPTEL) Before V Semester (OPTIONAL)	-	2	INT	-	-	100	

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
VI	III	Core Course-VIII		Plant Physiology and Plant Biochemistry	5	5	EXT	25	75	100	
	III	Core Course-IX		Environment, Biodiversity and Conservation	5	5	EXT	25	75	100	
	III	Core Practical-IV		<b>Practical-IV:</b> Plant Physiology, Plant Biochemistry, Environment, Biodiversity and Conservation.	6	4	INT	40	60	100	
	III	MBE-II		Horticulture and Plant Breeding	5	4	EXT	25	75	100	
	III	MBE-III		Plant Biotechnology and Genetic Engineering	5	4	EXT	25	75	100	
	III	Project		Group project	3	3	EXT	20	80	100	
	V	GS		Gender Studies	1	1	INT	25	75	100	
	V	Extension		Extension Activity (NSS/NCC/YRC/SPORTS/EXNORA)	-	1	INT	-	-	100	
	<b>TOTAL</b>					<b>30</b>	<b>27</b>				<b>800</b>
	<b>GRAND TOTAL</b>					<b>180</b>	<b>140</b>				<b>4100</b>
		EXTRA CREDIT COURSE		Capacity Building for Enhancing Professional skills <b>offered by the Department (MANDATORY)</b>	2	2	INT	-	-	100	
				<b>Internet concepts (MANDATORY)</b>	2	2	INT	25	75	100	

<b>TOTAL DISTRIBUTION OF HOURS, CREDITS &amp; MARKS FOR UG PROGRAMME</b>			
<b>SEMESTER</b>	<b>HOURS</b>	<b>CREDITS</b>	<b>TOTAL MARKS</b>
I	30	17	500
II	30	24	700
III	30	19	600
IV	30	26	800
V	30	27	700
VI	30	27	800
<b>TOTAL</b>	<b>180</b>	<b>140</b>	<b>4100</b>

### MAJOR BASED ELECTIVE COURSES

SEM	PART	COURSE	GROUP	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	CIA	SE	TOT
V	III	Major Based Elective Course-I	<b>Group I</b> (Choose any one course)		<b>Environmental Biotechnology</b> Plant Pathology	5	4	EXT	25	75	<b>100</b>
VI		Major Based Elective Course-II	<b>Group II</b> (Choose any one course)		<b>Horticulture and Plant Breeding</b> Herbal Technology	5	4	EXT	25	75	<b>100</b>
		Major Based Elective Course-III	<b>Group III</b> (Choose any one course)		<b>Plant Biotechnology and Genetic Engineering</b> Evolution	5	4	EXT	25	75	<b>100</b>
<b>TOTAL</b>						<b>15</b>	<b>12</b>				<b>300</b>



## ALLIED COURSES

(OFFERED TO THE STUDENTS OF CHEMISTRY AND ZOOLOGY)

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	CIA	SE	TOT
III	III	Allied Course-I		<b>Plant Science-I:</b> Cryptogams, Gymnosperms, Morphology, Taxonomy, Anatomy and Embryology	4	3	EXT	25	75	<b>100</b>
IV		Allied Course-II		<b>Plant Science-II:</b> Cytogenetics, Ecology, Plant Physiology and Plant Propagation	4	3	EXT	25	75	<b>100</b>
		Allied Practical-I		<b>Practical:</b> Plant Science-I and II	4	3	INT	40	60	<b>100</b>
<b>TOTAL</b>					<b>12</b>	<b>9</b>				<b>300</b>

### SKILL BASED ELECTIVE COURSES

SEM	PART	COURSE	GROUP	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
III	IV	Skill Based Elective Course-I	<b>Group I</b> (Choose any one course)		<b>Nursery Techniques and Mushroom Cultivation</b> Plant Protection	2	2	EXT	25	75	<b>100</b>
IV		Skill Based Elective Course-II	<b>Group II</b> (Choose any one course)		<b>Biofertilizer and Biopesticides</b> Food and Agricultural Microbiology	2	2	EXT	25	75	<b>100</b>
V		Skill Based Elective Course-III	<b>Group III</b> (Choose any one course)		<b>Preservation of Fruits and Vegetables</b> Ethnobotany	2	2	EXT	25	75	<b>100</b>
<b>TOTAL</b>						<b>6</b>	<b>6</b>				<b>300</b>

### NON MAJOR BASED ELECTIVE COURSES

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
III	IV	Non Major Based Elective Courses-I		Gardening and Mushroom Cultivation	2	2	EXT	25	75	<b>100</b>
IV	IV	Non Major Based Elective Courses-II		Bioinoculants	2	2	EXT	25	75	<b>100</b>
<b>TOTAL</b>					<b>4</b>	<b>4</b>				<b>200</b>

**VALUE ADDED COURSE**  
*Extra Credit Course for Skill Development*

<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>
V	I		Medicinal Plants and Herbal Preparations

**CERTIFICATE COURSE (IKS) OFFERED TO OTHER DEPARTMENTS**  
*Extra Credit Course for Skill Development*

<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>
IV	I		Herbal Medicine



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### DEPARTMENT OF BOTANY

(For students admitted from 2024 onwards)

Subject	Number of Courses	Hours	Credit
Language	4	24	12
English	4	24	12
Core Course - 9 Theory (4X6=24, 5X5=25)	9	51	49
Core Practical - 4 Practical (4X4=16)	4	22	16
Allied Course – 4 Theory	4	16	12
Allied Practical - 2 Practical	2	08	6
Major Based Elective Course	3	15	12
Skill Based Elective Course	3	06	6
Non Major Based Elective	2	04	4
Value Based Education	1	02	2
Environmental Studies	1	02	2
Soft Skill Development	1	02	2
Gender Studies	1	01	1
Extension Activity	1	-	1
Group Project	1	03	3
<b>Total</b>	<b>41</b>	<b>180</b>	<b>140</b>



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**B. Sc., BOTANY**  
 (CBCS System)  
**EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\***

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
I	EXTRA CREDIT COURSES		Communicative and Functional English offered by Department of English (MANDATORY)	2	2	INT	25	75	100	
III			Community Outreach Activity (II Semester vacation – Report, Photo & Feedback) (OPTIONAL)	-	1	INT	-	-	100	
III			Internship – I - (II Semester vacation) Online/Offline - Certificate, Report & Photo (MANDATORY)	-	1	INT	-	-	100	
IV			Certificate Course (IKS) – Offered to other Department (beyond class hours) (MANDATORY)	2	2	INT	25	75	100	
IV			Internship – II (III Semester vacation) - Online/Offline -Certificate, Report & Photo (OPTIONAL)	-	1	INT	-	-	100	
IV			Office Automation (MANDATORY)	2	2	INT	25	75	100	
V			Value Added Course – Offered to the same department (beyond class hours) (MANDATORY)	2	2	INT	25	75	100	
V			Internship – III (IV Semester vacation) – Online/Offline - Certificate, Report & Photo (OPTIONAL)	-	1	INT	-	-	100	
V			Web Designing (MANDATORY)	2	2	INT	25	75	100	
V			Online – Course (MOOC/Swayam/NPTEL) – Before V Semester (OPTIONAL)	-	2	INT	-	-	100	
VI			Capacity Building for Enhancing Professional Skills – Offered by the Department (MANDATORY)	2	2	INT	-	-	100	
VI			Internet Concepts (MANDATORY)	2	2	INT	25	75	100	
				<b>TOTAL</b>		<b>20</b>				<b>1200</b>



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B. Sc., BOTANY

(CBCS System)

## EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\* (MANDATORY)

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
I	EXTRA CREDIT COURSES		Communicative and Functional English offered by Department of English (MANDATORY)	2	2	INT	25	75	100
III			Internship – I - (II Semester vacation) Online/Offline - Certificate, Report & Photo (MANDATORY)	-	1	INT	-	-	100
IV			Certificate Course (IKS) – Offered to other Department (beyond class hours) (MANDATORY)	2	2	INT	25	75	100
IV			Office Automation (MANDATORY)	2	2	INT	25	75	100
V			Value Added Course – Offered to the same department (beyond class hours) (MANDATORY)	2	2	INT	25	75	100
V			Web Designing (MANDATORY)	2	2	INT	25	75	100
VI			Capacity Building for Enhancing Professional Skills – Offered by the Department (MANDATORY)	2	2	INT	-	-	100
VI			Internet Concepts (MANDATORY)	2	2	INT	25	75	100
				<b>TOTAL</b>		<b>15</b>			



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**B. Sc., BOTANY**

(CBCS System)

**EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\* (OPTIONAL)**

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
III	<b>EXTRA CREDIT COURSES</b>		Community Outreach Activity (II Semester vacation – <b>Report, Photo &amp; Feedback</b> ) (OPTIONAL)	-	1	INT	-	-	100
IV			<b>Internship – II</b> (III Semester vacation) - <b>Online/Offline -Certificate, Report &amp; Photo</b> (OPTIONAL)	-	1	INT	-	-	100
V			<b>Internship – III</b> (IV Semester vacation) – <b>Online/Offline - Certificate, Report &amp; Photo</b> (OPTIONAL)	-	1	INT	-	-	100
V			Online – Course (MOOC/Swayam/NPTEL) – <b>Before V Semester (OPTIONAL)</b>	-	2	INT	-	-	100
			<b>TOTAL</b>		<b>5</b>				<b>400</b>



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### DEPARTMENT OF BOTANY

(For students admitted from 2024 onwards)

#### EXTRA CREDIT COURSES\*

Subject	Common / Subject specific	Number of Courses	Credit
**Office Automation (MANDATORY)	Common to All	1	2
**Web Designing (MANDATORY)	Common to All	1	2
**Internet Concepts (MANDATORY)	Common to All	1	2
**Online Course (MOOC/SWAYAM/NPTEL) (OPTIONAL)	Subject Specific	1	2
Communicative and Functional English (MANDATORY)	Common to All	1	2
Community outreach activity (OPTIONAL)	Subject Specific	1	1
Certificate Course (IKS - Indian Knowledge System) (MANDATORY)	Subject Specific (offered to other departments)	1	2
Value Added Course (MANDATORY)	Subject Specific	1	2
Internship – I to be completed during II Semester Vacation (MANDATORY)	Subject Specific	3	3
Internship – II & III (OPTIONAL)			
Capacity Building for Enhancing Professional Skills (MANDATORY)	50% Common to All ( Placement training) 50% Subject specific( Career Guidance workshop by the respective Departments)	1	2
<b>TOTAL</b>	<b>12</b>	<b>12</b>	<b>20</b>

\*The extra credit courses have been introduced in the OBE-CBCS Curriculum pattern to be implemented from 2024 onwards based on the recommendations of the apex bodies namely **TANSICHE, UGC, Bharathidasan University (Parent University), NAAC in lieu of the National Education Policy.** \*\*Courses with Credit Transfer provision