

## I. CURRICULAR ASPECTS

### 1. Courses offered with intake details:

Programme	Combination	Duration	Available seats	Eligibility criteria
<b>B.Sc.</b>	Chemistry, <b>Botany</b> , Zoology	06 Sem.	69	10+2
	Chemistry, <b>Botany</b> , Geology	06 Sem.	31	10+2
	CBZ + B.Sc. B.Ed. (integrated)	08 Sem.	28 +31	10+2
	<b>Botany</b> , Anthropology, Zoology	06 Sem.	28	10+2
<b>M.Sc.</b>	<b>Botany</b>	04 Sem.	37	Under graduation with Botany
<b>Ph.D. in Botany</b>	-----	3-5 years with one semester course work	04	PG in Botany

### 2. Statuary body approval: Board of Studies; School Board

### 3. Scheme of courses offered

Course	Sem	Credit (Th.)	Credit (Pr.)	Field study	Monitoring and evaluation
<b>B.Sc.</b>	<b>6</b>	<b>32</b> (CC:16 SEC:08 DSE:08)	<b>12</b>	---	<b>Mid-Sem 1: Quiz &amp; Subjective-Internal (20Marks)</b> <b>Int. Asses: (15M assignment + 5 M attendance)</b> <b>End-Sem : External (60Marks)</b> <b>Exam Pattern: Objective type, short answer, long answer type questions with option without internal choice</b>
<b>M.Sc.</b>	<b>4</b>	<b>64</b> CC: 48 EC: 12	<b>28</b>	<b>02</b>	<b>Mid-Sem 1: Quiz &amp; Subjective-Internal (20 Marks)</b> <b>Int. Asses: (15Marks assignment + 5</b>

		<b>OE: 04</b> <b>(2 Elec.)</b>			<b>Marks attendance)</b> <b>End-Sem. : External (60Marks)</b> <b>Exam Pattern: Objective type, short answer, long answer type questions with option without internal choice</b>
<b>Ph. D.</b>	<b>1 Sem</b> <b>Course</b> <b>Work</b> <b>(Total duration</b> <b>6-10 Sem)</b>	<b>16</b> <b>CC:12</b> <b>EC:04</b>			<b>Mid-Sem 1: Quiz &amp; Subjective-Internal (20Marks)</b> <b>Int. Asses: (15Marks assignment + 5 Marks attendance)</b> <b>End-Sem : 60 Marks</b> <ul style="list-style-type: none"> <li>• <b>Presentation of Research proposal</b></li> <li>• <b>Semester wise Progress Report presentation</b></li> <li>• <b>Pre-submission seminar</b></li> <li>• <b>Final Thesis submission and Viva-voce</b></li> </ul>

#### 4. Curriculum design and development:

<b>Programmes for which syllabus revision was carried out during (2015-2020)</b>		
Name of programme	Programme Code	Dates of revision
Cell and Molecular Biology (B.Sc. V Sem)	BOT-EC-511	08/06/2016
Cytogenetics (M.Sc. II Sem)	BOT-CC-221	08/06/2016
Plant Physiology (M.Sc. II Sem)	BOT-CC-223	08/06/2016
Molecular Biology (M.Sc. III Sem)	BOT-CC-321	08/06/2016
Cell and Molecular Biology (B.Sc. V Sem)	BOT-EC-511	08/06/2018
Cytogenetics (M.Sc. II Sem)	BOT-CC-221	08/06/2018
Plant Physiology (M.Sc. II Sem)	BOT-CC-223	08/06/2018
Molecular Biology (M.Sc. III Sem)	BOT-CC-321	08/06/2018
Plant Ecology and Taxonomy (B.Sc. II Sem)	BOT-CC-211	11/09/2019
Plant Ecology and Taxonomy (B.Sc. II Sem)	BOT-CC-212	11/09/2019
Mushroom Biology (M.Sc. I Sem)	BOT-EC-121	11/09/2019
Mushroom Biology (M.Sc. I Sem)	BOT-EC-122	11/09/2019
Plant Physiology (M.Sc. II Sem)	BOT-CC-224	11/09/2019
Plant Development & Reproduction (M.Sc. II Sem)	BOT-CC-225	11/09/2019
Plant Development & Reproduction (M.Sc. II Sem)	BOT-CC-226	11/09/2019
Biochemistry (M.Sc. III Sem)	BOT-CC-324	11/09/2019
Mushroom Biology M.Sc.I.Sem.	BOT-EC -121 &122	03/07 /2019
Plant physiology M.Sc.II.Sem	BOT-CC-225&226	03/07 /2019
Title Change-Plant Anatomy & embryology of Angiosperms M.Sc.II.Sem	BOT-CC-225&226	03/07 /2019
Biochemistry M.Sc.III.Sem	BOT-CC-324.	03/07 /2019

#### 5. Programme Outcomes/Programme specific Outcomes/Course Outcomes

##### Learning outcomes for Postgraduate Programme : M.Sc. Botany

Develop a conceptual understanding of principles and importance of Botany. Students would be benefited with knowledge of core subjects like plant diversity, physiology and

biochemistry, molecular cytogenetic and application of statistics etc. which are offered in these subjects

Learn about practical technique in lab for detail study of plant cell structure, reproduction, anatomy, ecology, molecular biology climate change and sustainability. Maintain a high level of scientific excellence in botanical research with specific emphasis on the role of plants. Create, select and apply appropriate techniques, resources and modern technology in multidisciplinary way. Practice of subject with knowledge to design experiments, analyze and interpret data to reach to an effective conclusion.

They would identify, formulate and analyze the complex problems with reaching a substantiated conclusion. Innovative thinking with application of biological together with physical and chemical sciences. Learning that develops analytical and integrative problem-solving approaches.

Students would perform functions that demand higher competence in national/international organizations with sporty and helping spirits. Prepare the students for many competitive exams like PSC, UPSC, NET, SET, GATE etc.

Best problem-solving skills in students would encourage them to carry out innovative research projects thereby making them to use knowledge creation in depth. Enable the students to be resourceful in identifying the plants. Knowledgeable, disciplined students with good values, ethics, and kind heart will help in nation building globally.

### **PROGRAMME OUTCOMES FOR M.Sc. BOTANY**

Plant sciences is now an amalgamation of basic and applied science. Plants besides being the The unique capability of plants to trap solar energy and provide food to all cannot be replicated by any system. Conventional study like plant identification is now being supplemented with molecular techniques like DNA bar-coding. The courses have been designed to benefit all Botany students to study various aspects of plant science including its practical applications. Keeping in mind that these students can take up teaching at different levels, research work in research institutes and or industry, doctoral work, environment impact assessment, biodiversity studies, entrepreneurship, scientific writing relevant topics have been included in the curriculum.

The objectives of the course include the significance of fresh water in the present state of changing environmental conditions, aquatic organisms and distribution of water in biosphere. Understanding of changing fresh water body status due to human impact.