

# MASTER OF SCIENCE (BOTANY)

Duration: 24 Months (2Years) Eligibility: Graduation with Science Subjects

<b>COURSE STRUCTURE M.SC BOTANY SEMESTER 1st</b>													
<b>Course Details</b>				<b>External Assessment</b>		<b>Internal Assessment</b>				<b>Credit Distribution</b>			<b>Allotted Credits</b>
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional ***		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
<b>Theory Group</b>													
6SMBO101	<b>Core Course</b>	Biology and Diversity of algae, Bryophytes, pteridophytes and Gymnosperms	100	50	17	20	08	30	12	4	-	-	4
6SMBO102	<b>Core Course</b>	Biology and Diversity of Viruses, Bacteria and Fungi	100	50	17	20	08	30	12	4	-	-	4
6SMBO103	<b>Core Course</b>	Morphology, anatomy and taxonomy of angiospermic plant	100	50	17	20	08	30	12	4	-	-	4
6SMBO104	<b>Core Course</b>	Plant structure and Development	100	50	17	20	08	30	12	4	-	-	4
<b>Practical Group</b>				<b>Term End Practical Exam</b>		<b>Lab Performance</b>		<b>Sessional</b>					
6SMBO105	<b>Practical</b>	LAB - I	50	25	08	-	-	25	08	-	-	2	2
6SMBO106	<b>Practical</b>	LAB - II	50	25	08	-	-	25	08	-	-	2	2
<b>Grand Total</b>			<b>500</b>							<b>16</b>	<b>-</b>	<b>4</b>	<b>20</b>

Minimum Passing Marks are equivalent to Grade D

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/ Lab Performance Assignment 50%

L- Lectures T- Tutorials P- Practical

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<b>COURSE STRUCTURE M.SC BOTANY SEMESTER IInd</b>													
<b>Course Details</b>				<b>External Assessment</b>		<b>Internal Assessment</b>				<b>Credit Distribution</b>			<b>Allotted Credits</b>
<b>Course Code</b>	<b>Course Type</b>	<b>Course Title</b>	<b>Total Marks</b>	<b>Major</b>		<b>Minor</b>		<b>Sessional ***</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>Subject wise Distribution</b>
				<b>Max Marks</b>	<b>Min Marks</b>	<b>Max Marks</b>	<b>Min Marks</b>	<b>Max Marks</b>	<b>Min Marks</b>				
<b>Theory Group</b>													
6SMBO201	<b>Core Course</b>	Plant physiology, Biochemistry and Metabolism	100	50	17	20	08	30	12	4	-	-	4
6SMBO202	<b>Core Course</b>	Biology and Diversity of Gymnosperms	100	50	17	20	08	30	12	4	-	-	4
6SMBO203	<b>Core Course</b>	Plant Resource Utilization And Conservation	100	50	17	20	08	30	12	4	-	-	4
6SMBO204	<b>Core Course</b>	Cell Biology and Genetics	100	50	17	20	08	30	12	4	-	-	4
<b>Practical Group</b>				<b>Term End Practical Exam</b>		<b>Lab Performance</b>		<b>Sessional</b>					
6SMBO205	<b>Practical</b>	Lab -I	50	25	08	-	-	25	08	-	-	2	2
6SMBO206	<b>Practical</b>	Lab-II	50	25	08	-	-	25	08	-	-	2	2
<b>Skill Courses</b>								<b>Sessional</b>					
	<b>Skill Enhancement</b>	Skill Enhancement Elective Course-I	50	-	-	-	-	50	20	1	-	1	2
	<b>Grand Total</b>		<b>550</b>							<b>17</b>		<b>5</b>	<b>22</b>

**Minimum Passing Marks are equivalent to Grade D**

**Major- Term End Theory / Practical Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/ Lab Performance Assignment 50%**

**Skill Elective I – Any other course being offered in this semester as per the list given at the end of course structure.**

**L- Lectures T- Tutorials P- Practical**

# MASTER OF SCIENCE (BOTANY)

Duration: 24 Months (2 Years) Eligibility: Graduation with Science Subjects

<b>COURSE STRUCTURE M.SC BOTANY SEMESTER IIIrd</b>													
<b>Course Details</b>				<b>External Assessment</b>		<b>Internal Assessment</b>				<b>Credit Distribution</b>			<b>Allotted Credits</b>
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional ***		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
<b>Theory Group</b>													
6SMBO301	<b>Core Course</b>	Biotechnology and tissue culture	100	50	17	20	08	30	12	4	-	-	4
6SMBO302	<b>Core Course</b>	Molecular biology of plant	100	50	17	20	08	30	12	4	-	-	4
****	<b>Discipline Specific Elective</b>	Elective -I (Select anyone from below given Elective-I)	100	50	17	20	08	30	12	4	-	-	4
****	<b>Discipline Specific Elective</b>	Elective -II (Select anyone from below given Elective-I)	100	50	17	20	08	30	12	4	-	-	4
<b>Practical Group</b>				<b>Term End Practical Exam</b>		<b>Lab Performance</b>		<b>Sessional</b>					
****	<b>Practical</b>	Lab -I	50	25	08	-	-	25	08	-	-	2	2
****	<b>Practical</b>	Lab-II	50	25	08	-	-	25	08	-	-	2	2
<b>Skill Courses</b>								<b>Sessional</b>					
	<b>Skill Enhancement</b>	Skill Enhancement Elective Course-1	50	-	-	-	-	50	20	1	-	1	2
	<b>Grand Total</b>		<b>550</b>							<b>17</b>	<b>-</b>	<b>5</b>	<b>22</b>

Minimum Passing Marks are equivalent to Grade D

L- Lectures T- Tutorials P- Practical

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/ Lab Performance Assignment 50%

Skill Elective I – Any other course being offered in this semester as per the list given at the end of course structure.

## MASTER OF SCIENCE (BOTANY)

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<b>COURSE STRUCTURE M.SC BOTANY SEMESTER IV<sup>th</sup></b>													
<b>Course Details</b>				<b>External Assessment</b>		<b>Internal Assessment</b>				<b>Credit Distribution</b>			<b>Allotted Credits</b>
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional ***		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
<b>Theory Group</b>													
****	<b>Discipline Specific Elective</b>	Elective -III (Select anyone from below given Elective-I)	100	50	17	20	08	30	12	4	-	-	4
****	<b>Discipline Specific Elective</b>	Elective -IV (Select anyone from below given Elective-I)	100	50	17	20	08	30	12	4	-	-	4
<b>Practical Group</b>				<b>Term End Practical Exam</b>		<b>Lab Performance</b>		<b>Sessional</b>					
****	<b>Practical</b>	LAB - 1	50	25	08	-	-	25	08	-	-	2	2
****	<b>Practical</b>	LAB - II	50	25	08	-	-	25	08	-	-	2	2
	<b>Research Component</b>	Project/Internship/Field work & Viva Voce	200	100	33	-	-	100	40	-	-	8	8
<b>Grand Total</b>			<b>500</b>							<b>8</b>	<b>-</b>	<b>12</b>	<b>20</b>

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory / Practical Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Lab Performance Assignment 50%**

**Compulsory Project/Dessertation with choice in any Disciplinary specific elective. Compulsory one paper presentation certificate in related dicipline.**

## **PROJECT**

All the candidates of M.Sc. (Botany) are required to submit a project-report based on the work done by him/her during the project period. A detailed Viva shall be conducted by an external examiner based on the project report. Students are advised to see the detailed project related guidelines on the website of RNTU. ([www.rntu.ac.in](http://www.rntu.ac.in)) under Project Guidelines for student section.

**Outcome-**The student will identify a problem on which he/she would be able to work, identify the scope of research on the chosen topic and will frame the objectives to be addressed in the project through a work plan.

## SPECILIZATION WITH ELECTIVE

**\*Note** - Students need to select any one group and choose any two subjects from selected group for Third and fourth semester.

Electives for Third Semester			Electives for Fourth Semester		
Course Code	Course Type	List of Electives	Course Code	Course Type	List of Electives
<b>GROUP ELECTIVE -I Name – Botany</b>			<b>GROUP ELECTIVE -III Name –Botany</b>		
6SMBO303	Discipline Specific Elective-1	Plant Pathology	6SMBO401	Discipline Specific Elective-3	Tools and Techniques
6SMBO304	Discipline Specific Elective-1	Plant Reproduction	6SMBO402	Discipline Specific Elective-3	Evolutionary and Economic Botany
<b>GROUP ELECTIVE -II NAME: Botany</b>			<b>GROUP ELECTIVE -I V Name – Botany</b>		
6SMBO305	Discipline Specific Elective-2	Plant Ecology	6SMBO403	Discipline Specific Elective-4	Methods in Biology. Applied Biology Instrument, Biostatistics and Computer
6SMBO306	Discipline Specific Elective-2	Plants & Society	6SMBO404	Discipline Specific Elective-4	Ethno Botany

## SKILL ENHANCEMENT ELECTIVE COURSES

<b>Non-Technical</b>			
Elective No.	Department/ Faculty Name		
	<b>Faculty of Information Technology</b>		
I	SCIT 201	Data Entry Operation	2(1+0+1)
II	SCIT 301	Multimedia	2(1+0+1)
III	SCIT 501	Web Designing with HTML	2(1+0+1)
IV	SCMIT 201	Web Development	2(1+0+1)
V	SCMIT 301	LINUX	2(1+0+1)
	<b>Faculty of Management</b>		
I	SMGT 201	Briefing and Presentation Skills	2(1+0+1)
II	SMGT 301	Resolving Conflicts and Negotiation Skills	2(1+0+1)
III	SMGT 802	Entrepreneurship Development	2(1+0+1)
	<b>Faculty of Commerce</b>		
I	SCOM 201	Tally ERP 9	2(1+0+1)
II	SCOM 302	Multimedia	2(1+0+1)
III	SCOM 803	Data Analyst	2(1+0+1)
	<b>Faculty of Humanities</b>		
I	SHBA 301	Pursuing Happiness	2(1+0+1)
II	SHBA302	Communication Skill and Personality Development	2(1+0+1)
III	SHMA301	Tourism in M.P	2(1+0+1)
	<b>Faculty of Science</b>		
I	SSBI 301	Mushroom Cultivation	2(1+0+1)
II	SSPH 301	House Hold Wiring	2(1+0+1)
III	SSPH 301	Basic Instrumentation	2(1+0+1)
IV	SSPH 301	DTP Operator	2(1+0+1)
V	SSCH 301	Graphic Designing	2(1+0+1)
	<b>Faculty of Education</b>		
I	SCBE 403	Understanding of ICTC (Information Communication Technology)	2(1+0+1)
II	SCPE 201	Yoga Education	2(1+0+1)