



**RAYALASEEMA UNIVERSITY: KURNOOL**  
 (A State University Establishment by Govt. of (A.P)  
 ( UGC 2 ( f ) & 12B, Accredited by NAAC with 'B' Grade)  
 DEPARTMENT OF BOTANY

CURRICULUM (CBCS) – M.Sc. (BOTANY)  
 (Syllabus W.e.f. Academic Year 2022-2023)

S. No	Course Componets	Course Code	Course Title	No. of Credits	Instru ctional	Semester End Exam Duration(Hrs)	Total Marks		
							IAE	SEE	
<b>I-SEMESTER</b>			<b>THEORY</b>						
1	Core	BOT2211	Biology and Diversity of Algae, Bryophytes, Pteridophytes and Gymnosperms	4	4	3	20	80	
2		BOT2212	Biology and Diversity of Bacteria, Fungi, Viruses & Plant Pathology	4	4	3	20	80	
3	Foundation	BOT2213	Plant Taxonomy	4	4	3	20	80	
4	IE	BOT2214	<b>Internal Elective:</b> a) Cell Biology & Tools and Techniques b) Plant -microbe interactions c) Plant Development & Reproduction	4	4	3	20	80	
5	Audit Course	BOT2215	Bioethics & Intellectual Property Rights	NIL	4	-	Satisfy	-	
<b>Practicals</b>									
1	Practical-I	BOT2211P& BOT2212P	Biology and Diversity of Algae, Bryophytes, Pteridophytes and Gymnosperms & Biology and Diversity of Bacteria, Fungi, Viruses & Plant Pathology	4	8	4	30	70	
2	Practical-II	BOT2213P& BOT2214P	Plant Taxonomy & Internal Elective	4	8	4	30	70	
<b>Total</b>				<b>24</b>			<b>140+460= 600</b>		
<b>II-SEMESTER</b>			<b>THEORY</b>						
1	Core	BOT2221	Molecular Plant Physiology	4	4	3	20	80	
2	Core Foundation	BOT2222	Plant Metabolism	4	4	3	20	80	
3	IE	BOT2223	<b>Internal Elective:</b> a)Genetics & Evolution b)Plant Resources and Utilization c)Biosystematics	4	4	3	20	80	
4	OE	BOT2224	<b>Open Elective:</b> a)Plant Molecular Biology b)Ecology & Environment c) Plant Resources and Utilization	4	4	3	20	80	
5	Audit Course	BOT2225	BioSafety	NIL	4	-	Satisfy	-	
6		BOT2226	Comprehensive Viva	1	-	-	50		
<b>Practicals</b>									
1	Practical-I	BOT2221P & BOT2222P	Molecular Plant Physiology & Plant Metabolism	4	8	4	30	70	
2	Practical- II	BOT2223P & BOT22 24P	OE & IE	4	8	4	30	70	
<b>Total</b>				<b>25</b>			<b>650</b>		
<b>III-SEMESTER</b>			<b>THEORY</b>						
1	Core	BOT2231	Plant Biotechnology & Genetic Engineering	4	4	3	20	80	
2	Core Foundation	BOT2232	Ethnobotany & Phytomedicine						
3	IE	BOT2233	a)Plant Drugs b) Hydroponics c) Biofuels	4	4	3	20	80	

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4	OE	BOT2234	a)Phytodiversity,Conservation & Management b)Biofertilizers c)Seed Technology	4	4	3	20	80
	Practicals							
1	Practical-I	BOT2231P & BOT2232P	Plant Biotechnology & Genetic Engineering & Ethnobotany & Phytomedicine	4	8	4	30	70
2	IE/ SOC/LAB	BOT2233P & BOT2234P	IE/Skill Oriented Course & OE	4	8	4	30	70
			<b>Total</b>	<b>24</b>			<b>600</b>	
	IV-SEMESTER	THEORY						
1	Core	BOT2241	Plantomes and Bioinformatics	4	4	3	20	80
2		BOT2242	Horticulture and Agriculture Biology	4	4	3	20	80
3	IE /SOC	BOT2243	a)Forestry & Silviculture b) SWAYAM/MOOCs c)Ecosystem-Analytics	4	4	3	20	80
4	OE	BOT2244	<b>Open Elective:</b> a)Mushroom Cultivation b) Organic Farming c)Plant-Microbes interactions	4	4	3	20	80
5	Practical-I	BOT2241P & BOT2242P	Core I & II	4	8	4	30	70
6	Compulsory	BOT2245	Project - Dissertation & Viva -Voce	4	8	-	-	100
7		BOT2246	Comprehensive Viva	1			50	-
			<b>Total:</b>	<b>25</b>			<b>650</b>	

**Total Credits:** 24+25+24+25=98 ; **Total Marks:** 600+650+600+650=2500

**IAE:**

Internal Assessment Examination - 20 marks ;**SEE:** Semester End Examination (both theory and Practicals)