

BACHELOR OF SCIENCE

Course Structure

1. BOTANY					
		Course No.	Course Name	Credits	Total Credits
I	Pass	BOT-101	Biodiversity I	4	8
		BOT-102	Practical	1	
	Hons	BOT-103	Microbiology and Plant Pathology	2	
		BOT-104	Practical	1	
II	Pass	BOT-201	Biodiversity II and Plant Pathology	4	8
		BOT-202	Practical	1	
	Hons	BOT-203	Embryology and Palynology	2	
		BOT-204	Practical	1	
III	Pass	BOT-301	Morphology, Anatomy and Angiosperm Taxonomy	4	8
		BOT-302	Practical	1	
	Hons	BOT-303	Ethnobotany, Economic Botany and Biometric	2	
		BOT-304	Practical	1	
IV	Pass	BOT-401	Plant Physiology and Ecology	4	8
		BOT-402	Practical	1	
	Hons	BOT-403	Environmental Biology and Phytogeography	2	
		BOT-404	Practical	1	
V	Pass	BOT-501	Biochemistry and plant breeding	4	8
		BOT-502	Practical	1	

	Hons	BOT-503 BOT-504	Molecular Biology and Biotechnology Practical	2 1	
VI	Pass	BOT-601 BOT-602	Cell Biology and Genetics Practical	4 1	10
	Hons	BOT-603 BOT-604	Choice Based Credit System a)Angiosperm Taxonomy b)Methodology and Perspective of Science c)Plant Biotechnology d) Forestry e) Mushroom Cultivation f) Horticulture Project Work	3 2	

2. CHEMISTRY					
Semester		Course Number	Course Name	Credits	Total Credits
I	Pass	CHEM-101 CHEM-102	Inorganic (Theory) Inorganic (Practical)	4 1	8
	Honours	CHEM-103 CHEM-104	Inorganic (Theory) Inorganic (Practical)	2 1	
II	Pass	CHEM-201 CHEM-202	Organic (Theory) Organic (Practical)	4 1	8
	Honours	CHEM-203 CHEM-204	Organic (Theory) Organic (Practical)	2 1	
III	Pass	CHEM-301 CHEM-302	Physical (Theory) Physical (Practical)	4 1	8
	Honours	CHEM-303 CHEM-304	Physical (Theory) Physical (Practical)	2 1	
IV	Pass	CHEM-401 CHEM-402	Inorganic (Theory) Inorganic (Practical)	4 1	8
	Honours	CHEM-403 CHEM-404	Quantum Chemistry & Molecular Spectroscopy Advanced Practical-1 (Physical, Inorganic and Organic)	2 1	
V	Pass	CHEM-501 CHEM-502	Organic (Theory) Organic (Practical)	4 1	8

	Honours	CHEM-503 CHEM-504	Analytical Chem & Applications of Spectroscopy. Advanced Practical-II (Physical, Inorganic and Organic)	2 1	
VI	Pass	CHEM-601 CHEM-602	Physical (Theory) Physical (Practical)	4 1	10
	Honours	CHEM-603 CHEM-604	Choice Based Credit Paper a. Biological Chemistry b. Nano Chemistry c. Medicinal Chemistry d. Environmental and Green Chemistry Project Work	3 2	

3. GEOGRAPHY							
Semester	I (Code/Paper)	II (Code/Paper)	III (Code/Paper)	IV (Code/Paper)	V (Code/Paper)	VI (Code/Paper)	Total Credit
Theory (P & H)	GEOG-101/ (Physical basis of Geography)	GEOG-201/ (Climatology & Oceanography)	GEOG-301/ Human Geography	GEOG-401/ Economic Geography	GEOG-501/ Regional Geography of India	GEOG-601/ Regional Geography of North East India	
Credit/CH*	4/ 60	4/ 60	4/ 60	4/ 60	4/ 60	4/ 60	24
Practical (P & H)	GEOG-102/ Practical	GEOG-202/ Practical	GEOG-302/ Practical	GEOG-402/ Practical	GEOG-502/ Practical	GEOG-602/ Practical	
Credit/CH*	1/ 30	1/ 30	1/ 30	1/ 30	1/ 30	1/ 30	6
Theory (H)	GEOG-103/ Geographical Thought	GEOG-203/ Regional Geography of World	GEOG-303/ Political Geography	GEOG-403/ Advanced Geomorphology	GEOG-503/ Applied and Resource Management	GEOG-603/ Environment and Disaster Management	
Credit/CH*	3/ 45	3/ 45	3/ 45	3/ 45	3/ 45	3/ 45	18
Practical (H)	GEOG-104/ Practical	GEOG-204/ Practical	GEOG-304/ Practical	GEOG-404/ Practical	GEOG-504/ Practical	GEOG-604/ Project	
Credit/CH*	1/ 30	1/ 30	1/ 30	1/ 30	1/ 30	1/ 30	6
*Abbreviation: P & H = Pass & Honours, H= Honours							
*CH = Contact Hours							

Each semester would be of 90 working days

Credit=Contact Hours per week (double for practical)

4. GEOLOGY						
Semester	I (Code/Paper)	II (Code/Paper)	III (Code/Paper)	IV (Code/Paper)	V (Code/Paper)	VI (Code/Paper)
Theory (P & H)	Geol-101 Physical and Structural Geology	Geol-201 Crystallography and Mineralogy	Geol-301 Igneous and Metamorphic Petrology	Geol-401 Palaeontology and Stratigraphy	Geol-501 Sedimentary Petrology and Environmental Geology	Geol-601 Economic Geology and Indian Mineral Resources
Practical (P & H)	Geol-102 / Practical	Geol-202 / Practical	Geol-302 / Practical	Geol-402/ Practical	Geol-502/ Practical	Geol-602/ Practical
Theory (H)	Geol-103 Physics and Dynamics of the Earth	Geol-203 Geomorphology, Remote Sensing and Engineering Geology	Geol-303 Advanced Structural Geology and Hydrogeology	Geol-403 Exploration & Mining Geology and Energy Resources	Geol-503 Advanced Palaeontology and Indian Stratigraphy	Geol-603(i) Advanced Remote Sensing and GIS
Practical (H)	Geol-104 / Practical	Geol-204 /Practical	Geol-304 / Practical	Geol-404 / Practical	Geol-504/ Practical	Geol-604/ Practical
*Abbreviation: P & H = Pass & Honours, H= Honours						
Theory- 70 Marks; Practical- 50 Marks						
Ten questions to be set, two from every unit (Each paper has 5 units). Each unit = 14 marks						

5. ZOOLOGY					
Semester		Course number	Name of paper	Credits	Total
I	Pass	ZOO-101	Introduction to Non-Chordates (Theory)	4	8
		ZOO-102	Introduction to Non-Chordates (Practicals)	1	
	Hons	ZOO-103	Evolutionary Biology and Animal Behaviour (Theory)	2	
		ZOO-104	Evolutionary Biology and Animal Behaviour (Practicals)	1	

II	Pass	ZOO-201	Chordates and Evolution (Theory)	4	8
		ZOO-202	Chordates and Evolution (Practicals)	1	
	Hons	ZOO-203	Immunology and Biostatistics (Theory)	2	
		ZOO-204	Immunology and Biostatistics (Practicals)	1	
III	Pass	ZOO-301	Cell and Molecular Biology I (Theory)	4	8
		ZOO-302	Cell and Molecular Biology I (Practicals)	1	
	Hons	ZOO-303	Cell and Molecular Biology II (Theory)	2	
		ZOO-304	Cell and Molecular Biology II (Practicals)	1	
IV	Pass	ZOO-401	Developmental Biology and Physiology (Theory)	4	8
		ZOO-402	Developmental Biology and Physiology (Practicals)	1	
	Hons	ZOO-403	Chordates and Physiology (Theory)	2	
		ZOO-404	Chordates and Physiology (Practicals)	1	
V	Pass	ZOO-501	Biochemistry and Genetics (Theory)	4	8
		ZOO-502	Biochemistry and Genetics (Practicals)	1	
	Hons	ZOO-503	Genetics/Applied Zoology/ Environmental Management (Theory)	2	
		ZOO-504	Genetics/Applied Zoology/ Environmental Management (Practicals)	1	
VI	Pass	ZOO-601	Ecology and Applied Zoology (Theory)	4	10
		ZOO-602	Ecology and Applied Zoology (Practicals)	1	
	Hons	ZOO-603	Choice Based Credit Paper. NOTE: Colleges have the option of offering any paper relevant to zoology based on their manpower and infrastructure).	3	
		ZOO-604	Project work	2	