

IGNOU
(School of Sciences)

MAPPING OF COURSES FOR ACADEMIC COUNSELLORS FOR B Sc – CBCS

1. Discipline: BOTANY

Sl. No.	Courses of B Sc - CBCS					Code of Corresponding Course in the Existing B Sc
	Nature of Course	Type of Course	Sem.	Course Code	Course Name	
1	Theory	Core Courses	I	BBYCT-131	Biodiversity (Microbes, Algae, Fungi and Archegoniates)	LSE-12,13
2			II	BBYCT-133	Plant Ecology and Taxonomy	LSE-02,07
3			III	BBYCT-135	Plant Anatomy and Embryology	LSE-06, 13
4			IV	BBYCT-137	Plant Physiology and Metabolism	LSE-05
5		Discipline Specific Courses	V	BBYET-141	Cell and Molecular Biology	LSE-01, 03
6			VI	BBYET-143	Economic Botany and Biotechnology	LSE-12,13, 14L
7		Skill Enhancement Courses	III	BBYS-183		
8			IV	BBYS-184		
9	Laboratory	Core Courses	I	BBYCL-132	Biodiversity (Microbes, Algae, Fungi and Archegoniates): Laboratory	LSE-14
10			II	BBYCL-134	Plant Ecology and Taxonomy: Laboratory	LSE-02,07,08L
11			III	BBYCL-136	Plant Anatomy and Embryology: Laboratory	LSE-05,08
12			IV	BBYCL-138	Plant Physiology and Metabolism: Laboratory	LSE-05, 08L
13		Discipline Specific Courses	V	BBYEL-142	Cell and Molecular Biology: Laboratory	LSE-01, 03, 04L
14			VI	BBYEL-144	Economic Botany and Biotechnology: Laboratory	LSE-12,13, 14L
		Skill Enhancement Courses				

2. Discipline: CHEMISTRY

Sl. No.	Courses of B Sc - CBCS					Code of Corresponding Course in the Existing B Sc
	Nature of Course	Type of Course	Sem.	Course Code	Course Name	
01	Theory	Core Courses	I	BCHCT-131	Atomic Structure, Bonding, General Organic Chemistry and Aliphatic Hydrocarbons (Theory)	Part A: CHE 01 Part B: CHE 05
02			II	BCHCT-133	Chemical Energetics, Equilibria and Functional Group Organic Chemistry-I (Theory)	Part A: CHE 04 Part B: CHE 05
03			III	BCHCT-135	Solutions, Phase equilibrium, Conductance, Electrochemistry and Functional Group Organic Chemistry-II (Theory)	Part A: CHE 04 Part B: CHE 05
04			IV	BCHCT-137	Coordination Chemistry, States of Matter and Chemical Kinetics (Theory)	Part A: CHE 02 Part B: CHE 04
06		Discipline Specific Courses	VI	BCHET-141	Analytical Methods in Chemistry(Theory)	AEC 01+ College/University Chemistry faculty having some teaching Experience of teaching analytical chemistry course (s)
07			VI	BCHET-145	Quantum Chemistry, Spectroscopy and Photochemistry(Theory)	CHE 01, CHE 04, CHE 10
08			VI	BCHET-147	Organometallics, Bioinorganic Chemistry, Polynuclear Hydrocarbons and UV, IR Spectroscopy(Theory)	CHE 02, CHE 05, CHE 10
09			V	BCHET-149	Molecules of Life(Theory)	CHE 09
10		Skill Enhancement Courses	VI	BCHS-183	Basic Analytical Chemistry	College/University Chemistry faculty having some teaching Experience of teaching analytical chemistry course (s)
11			IV	BCHS-184	Basics of Drugs and Pharmaceuticals Sale	Faculty member having teaching experience of teaching medicinal chemistry course(s)

12	Laboratory	Core Courses	I	BCHCL-132	Atomic Structure, Bonding, General Organic Chemistry and Aliphatic Hydrocarbons(Lab)	CHE 03(L) CHE 12(L)
13			II	BCHCL-134	Chemical Energetics, Equilibria and Functional Group Organic Chemistry-I (Lab)	CHE 08 CHE 11(L)
14			III	BCHCL-136	Solutions, Phase equilibrium, Conductance, Electrochemistry and Functional Group Organic Chemistry-II (Lab)	CHE0 8(L) CHE 11(L) CHE 12(L)
15			IV	BCHCL-138	Coordination Chemistry, States of Matter and Chemical Kinetics(Lab)	CHE 07(L) CHE 11(L)
16		Discipline Specific Courses	VI	BCHEL-142	Analytical Methods in Chemistry(Lab)	CHE 3(L) CHE 12(L)
17			VI	BCHEL-146	Quantum Chemistry, Spectroscopy and Photochemistry(Lab)	AEC 01(L)
16			VI	BCHEL-148	Organometallics, Bioinorganic Chemistry, Polynuclear Hydrocarbons and UV, IR Spectroscopy(Lab)	CHE 07(L) CHE 08(L) CHE 12(L)
			V	BCHEL-150	Molecules of Life(Theory)	CHE 8(L) CHE 12(L)

3. Discipline: GEOGRAPHY

(Since Geography is not offered as a Discipline in the existing B Sc, there are no corresponding courses in the existing B Sc. Academic Counsellors for all the courses for B Sc – CBCS are to be identified and appointed a fresh as per the eligibility given after the list of courses below.)

Sl. No.	Courses of B. Sc - CBCS				
	Nature of Course	Type of Course	Sem.	Course Code	Course Name
1.	Theory	Core Course	I	BGGCT-131	Physical Geography
2.			II	BGGCT-132	Human Geography
3.			III	BGGCT-133	General Cartography
4.			IV	BGGCT-135	Environmental Geography
5.		Discipline Specific Elective	V	BGGET-141	Geography of India
6.			VI	BGGET-142	Economic Geography
7.	Laboratory	Core Course	III	BGGCL-134	General Cartography: Laboratory
8.		Skill Enhancement Course	III	BGGSL-183	Field Survey Methods : Laboratory
9.			IV	BGGSL-184	Remote Sensing and GPS: Laboratory
10.			V	BGGSL-185	Geographical Information System: Laboratory
11.			VI	BGGSL-186	Techniques in Regional Development Planning: Laboratory

Eligibility for Academic Counsellor:

A. Core Courses & Discipline Specific Elective Courses:

All teachers of Geography who are working as Assistant Professor/Associate Professor/Professor in Universities/Colleges are eligible.

B. Skill Enhancement Courses:

- **BGGSL-184 & BGGSL-185** (Remote Sensing and GPS: Laboratory & Geographical Information System: Laboratory):
a). All teachers of Geography and allied disciplines working as Assistant Professor/Associate Professor/Professor in Universities/Colleges having Remote Sensing or GIS as One Subject at Masters Level/Certificate/Diploma/Research or Teaching or Industrial Experience in Remote Sensing and GIS are eligible.
- **BGGSL-183 & BGGSL-186** (Field Survey Methods : Laboratory & Techniques in Regional Development Planning: Laboratory):
All teachers of Geography working as Assistant Professor/Associate Professor/Professor in Universities/Colleges are eligible.

4. Discipline: GEOLOGY

(Since Geology is not offered as a Discipline in the existing B Sc, there are no corresponding courses in the existing B Sc. Academic Counsellors for all the courses for B Sc – CBCS are to be identified and appointed a fresh as per the eligibility given after the list of courses below.)

Sl. No.	Courses of B Sc - CBCS					Code of Corresponding Course in the Existing B Sc
	Nature of Course	Type of Course	Sem.	Course Code	Course Name	
	Theory	Core Courses	I	BGYCT-131	Physical and Structural Geology	Geology courses as a discipline were not offered in the existing B.Sc. programme
			II	BGYCT-133	Crystallography, Mineralogy and Economic Geology	
			III	BGYCT-135	Petrology	
			IV	BGYCT-137	Stratigraphy and Palaeontology	
		Discipline Specific Courses	V	BGYET-141	Ore Geology and Industrial Minerals	
			VI	BGYET-147	Geomorphology and Geotectonics	
		Skill Enhancement Courses				
	Laboratory	Core Courses	I	BGYCL-132	Physical and Structural Geology: Laboratory	Geology courses as a discipline were not offered in the existing B.Sc. programme
			II	BGYCL-134	Crystallography, Mineralogy and Economic Geology: Laboratory	
			III	BGYCL-136	Petrology: Laboratory	
			IV	BGYCL-138	Stratigraphy and Palaeontology: Laboratory	
		Discipline Specific Courses	V	BGYEL-142	Ore Geology and Industrial Minerals: Laboratory	
			VI	BGYEL-148	Geomorphology and Geotectonics: Laboratory	
		Skill Enhancement Courses				

Academic Counselors for the Geology courses may be appointed as per the following eligibility criteria:

“All teachers of Geology who are working as Assistant Professor/ Associate Professor/ Professor in Universities/ Colleges would be eligible for empanelment as Academic Counsellors”

5. Discipline: MATHEMATICS

Sl. No.	Courses of B Sc–CBCS					Code of Corresponding Course in the Existing B Sc	
	Nature of Course	Type of Course	Sem.	Course Code	Course Name		
1	Theory	Core Courses	I	BMTC-131	Calculus	MTE-01	
2			II	BMTC-132	Differential Equations	MTE-08	
3			III	BMTC-133	Real Analysis	MTE-09	
4			IV	BMTC-134	Algebra	MTE-06	
5		Discipline Specific Courses	V	BMTE-141	Linear Algebra	MTE-02	
6			VI	BMTE-144	Numerical Analysis	MTE-10	
		Skill Enhancement Courses					
	Laboratory	Core Courses					
		Discipline Specific Courses					
	Skill Enhancement Courses						

6. Discipline: PHYSICS

Sl. No.	Courses of B Sc - CBCS					Code of Corresponding Course in the Existing B Sc	
	Nature of Course	Type of Course	Sem.	Course Code	Course Name		
01	Theory	Core Courses	I	BPHCT-131	Mechanics	BPHE-101, BPHE-102	
02			II	BPHCT-133	Electricity & Magnetism		
03			III	BPHCT-135	Thermal Physics & Statistical Mechanics		
04			IV	BPHCT-137	Waves and Optics		
05		Discipline Specific Courses	V	BPHET-141	Elements of Modern Physics	PHE-11	
06			VI	BPHET-143	Digital and Analog Circuits and Instrumentation	PHE10	
		Skill Enhancement Courses					
01	Laboratory	Core Courses	I	BPHCL-132	Mechanics: Laboratory	BPHL-103, PHE- 08(L), PHE-12(L)	
02			II	BPHCL-134	Electricity & Magnetism: Laboratory		
03			III	BPHCL-136	Thermal Physics & Statistical Mechanics: Laboratory		
04			IV	BPHCL-138	Waves and Optics: Laboratory		
05		Discipline Specific Courses	V	BPHEL-142	Elements of Modern Physics: Laboratory		
06			VI	BPHEL-144	Digital and Analog Circuits and Instrumentation : Laboratory		
		Skill Enhancement Courses					

7. Discipline: Zoology

Sl. No.	Courses of B.Sc. – CBCS					Code of Corresponding Course in the Existing B.Sc.
	Nature of Course	Type of Course	Sem.	Course Code	Course Name	
1	Theory	Core Courses	I	BZYCT-131	Animal Diversity	LSE-09, LSE-10
2			II	BZYCT -133	Comparative Anatomy and Developmental Biology of Vertebrates	LSE-06 (Part II), LSE-10
3			III	BZYCT -135	Physiology and Biochemistry	LSE-05 (Part I), LSE-01
4			IV	BZYCT -137	Genetics and Evolutionary Biology	LSE-03, LSE-07
5		Discipline Specific Courses	V	BZYET-141*	Immunology	Does not exist in existing B.Sc. Programme
6			VI	BZYET-143**	Insect Vectors and Vector Borne Diseases	Does not exist in existing B.Sc. Programme
7	Laboratory	Core Courses	I	BZYCL-132	Animal Diversity: Laboratory	LSE-11 (L)
8			II	BZYCL-134	Comparative Anatomy and Developmental Biology of Vertebrates: Laboratory	LSE 8(L), LSE-11 (L)
9			III	BZYCL-136	Physiology and Biochemistry: Laboratory	LSE-04 (L), LSE-08 (L)
10			IV	BZYCL-138	Genetics and Evolutionary Biology: Laboratory	LSE-04 (L), LSE-08 (L)
11		Discipline Specific Courses	V	BZYEL-142*	Immunology: Laboratory	Does not exist in existing B.Sc.
12			VI	BZYEL-144*	Insect Vectors and Vector Borne Diseases: Laboratory	Does not exist in existing B.Sc.

***Essential Qualification for Academic Counsellors**

Assistant Professor teaching Immunology at UG level

Desirable: 2 Years experience as Assistant Professor

****Essential Qualification for Academic Counsellors**

Assistant Professor teaching Medical Entomology at UG level

Desirable: 2 Years experience as Assistant Professor