



TECHNO INDIA UNIVERSITY

W E S T B E N G A L

**COURSE CURRICULUM FOR 4-YEARS BACHELORS IN
SCIENCE IN EARTH SCIENCES (with Research)**



DEPARTMENT OF EARTH SCIENCES

Techno India University, West Bengal

EM-4, EM Block, Sector V, Bidhannagar,

Kolkata -700091, West Bengal

**First Semester**

Sl. No.	Subject Code	Subject	Periods per week			Credits
			L	T	P	
Theory						
1.	TIU-UGL-MAJOR-T101	EARTH SYSTEM SCIENCE	4	0	0	4
2	TIU-UGL-MINOR-L101	CHEMISTRY/ ZOOLOGY	3	0	1	4
3	TIU-UGL-IDC-T101	BASICS OF AI	1	0	2	3
4	TIU-UGL-AEC-T101	COMMUNICATIVE ENGLISH	2	0	0	2
5.	TIU-UGL-CVAC-T101	INTRODUCTION TO THE INDIAN CONSTITUTION	4	0	0	4
Practical						
1	TIU-UGL-MAJOR-L101	EARTH SYSTEM SCIENCE LAB	0	0	2	2
2	TIU-UGL-SEC-T101	PRINCIPLES AND APPLICATIONS OF FIELD INSTRUMENTS	0	1	2	3
Total Credits						22

**Second Semester**

Sl. No	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1.	TIU-UGL-MAJOR-T100	MINERALOGY	4	0	0	4
2.	TIU-UGL-MAJOR-T102	ELEMENTS OF GEOCHEMISTRY	0	0	2	4
3.	TIU-UGL-MINOR-T100	ESSENTIALS OF GEOLOGY	2	1	1	4
4.	TIU-UGL-AEC-T100	COMMUNICATIVE ENGLISH	2	0	0	2
Practical						
1	TIU-UGL-MAJOR-L100	MINERAL SCIENCE LAB	0	0	2	2
2	TIU-UGL-SEC-P100	FIELD TRAINING-I	0	0	3	3
3	TIU-UGL-CVAC-T100	YOGA AND MENTAL HEALTH	4	0	0	4
Total Credits						23

**Third Semester**

Sl. No.	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL-MAJOR-T201	IGNEOUS PETROLOGY	3	1	0	4
2	TIU-UGL-MAJOR-T203	SEDIMENTOLOGY	3	1	0	4
3	TIU-UGL-IDC-T201	ENVIRONMENTAL GEOLOGY	2	1	0	3
4	TIU-UGL-AEC-T201	APPLIED ENGLISH (AS REQUIRED -TOFEL, IELTS)	2	0	0	2
5	TIU-UGL-MINOR-T201	PLANETARY SCIENCE	2	1	1	4
Practical						
1	TIU-UGL-MAJOR-L203	SEDIMENTOLOGY LAB	0	0	2	2
2	TIU-UGL-SEC-T201	DATA HANDLING IN IGNEOUS PETROLOGY LAB	0	1	2	3
Total Credits						22

**Fourth Semester**

Sl. No.	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL-MAJOR-T200	STRUCTURALGEOLOGY	3	1	0	4
2	TIU-UGL-MAJOR-T202	GEOPHYSICS	3	1	0	4
3	TIU-UGL-MAJOR-T204	STRATIGRAPHY	3	1	0	4
4	TIU-UGL-IDC-T200	GEODYNAMICS	2	1	0	3
Practical						
1	TIU-UGL-MAJOR-L200	STRUCTURAL GEOLOGY LAB	0	0	2	2
2	TIU-UGL-CAC-P200	FIELD TRAINING-II	0	0	4	4*
3	TIU-UGL-MINOR-T200	ROCKS AND MINERALS	2	1	1	4
Total Credits						23

**FIFTH SEMESTER**

Sl. No.	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL-MAJOR-T301	METAMORPHIC PETROLOGY	3	1	0	4
2	TIU-UGL-MAJOR-T303	PALAEONTOLOGY	3	1	0	4
3	TIU-UGL-MAJOR-T305	TECTONICS AND SOLID EARTH-GEOPHYSICS	3	1	0	4
5	TIU-UGL-MAINOR-T301	PLANETARY SCIENCE	3	1	0	4
Practical						
1	TIU-UGL-MAJOR-L301	METAMORPHIC PETROLOGY LAB	0	0	2	2
2	TIU-UGL-MAJOR-L303	PALAEONTOLOGYLAB	0	0	2	2
3	TIU-UGL-P307	INTERNSHIP	0	0	2	2
Total Credits						22

**SIXTH SEMESTER**

	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL-MAJOR-T300	ECONOMICGEOLOGY	3	1	0	4
2	TIU-UGL-MAJOR-T302	EXPLORATIONGEOLOGY	3	1	0	4
3	TIU-UGL-MAJOR-T304	HYDROGEOLOGY	2	1	1	4
5	TIU-UGL-MAJOR-T306	ENGINEERINGGEOLOGY	2	1	1	4
6	TIU-UGL-MINOR-T300	ELEMENTARY GEOPHYSICS	3	1	4	4
Practical						
1	TIU-UGL-MAJOR-L300	ECONOMIC GEOLOGY LAB	0	0	2	2
2	TIU-UGL-MAJOR-L304	HYDROGEOLOGY LAB	0	0	2	2
3	TIU-UGL-CAC-P300	FIELDTRAINING-III	0	0	4	4*
Total Credits						24

**SEVENTH SEMESTER**

Sl. No.	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL-MAJOR-T401	GEOMORPHOLOGY, GIS AND REMOTE-SENSING	2	1	1	4
2	TIU-UGL-MAJOR-T403	FUEL GEOLOGY	2	1	1	4
3	TIU-UGL-MAJOR-DSC- T405	SEQUENCE STRATIGRAPHY AND BASIN EVOLUTION	3	1		4
5	TIU-UGL-MAJOR-T306	ENGINEERING GEOLOGY	2	1	1	4
6	TIU-UGL-MINOR-401	GEOCHEMISTRY	4	0	0	4
Practical						
1	TIU-UGL-MAJOR-L401	GEOMORPHOLOGY, GIS AND REMOTE-SENSING	0	0	2	2
2	TIU-UGL-MAJOR-L403	FUEL GEOLOGY LAB	0	0	2	2
Total Credits						20

**EIGHTH SEMESTER**

Sl. No.	Subject Code	Subject	Contacts			Credits
			L	T	P	
Theory						
1	TIU-UGL- MAJOR-T400	APPLICATIONS OF MICRO AND MOLECULAR FOSSILS	4	0	0	4
2	TIU-UGL-MINOR- D400	HYDROGEOLOGY	3	1	0	4
3	TIU-UGL- D400	DISSERTATION	4	4	4	12
Practical						
1	TIU-UGL-CAC-P400	FIELD TRAINING-IV	0	0	4	4*
2	TIU-UGL-CAC-D400	RESEARCH SEMINAR (NOT RELATED TODISSERTATION)	0	0	4	4*
Total Credits						20

Marks/grades obtained in the compulsory audit courses (CAC) will not be used in the calculation of CGPA/SGPA etc. but will be reflected separately in the Grade Card/Mark sheet