DEPARTMENT OF EARTH SCIENCES

M.Sc. (Applied Geology)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	**Subject Code**	**Course Title**	**Subject Area**	**Credits**	**L**	**T**	**P**	**Theory**	**Practical**	**CWS**	**PRS**	**MTE**	**ETE**	**PRE**
1st YEAR					**Semester- I (Autumn)**									
1.	ESN-510	Numerical Techniques and Computer Programming	PCC	4	3	0	2	3	0	15	25	20	40	-
2.	ESN-511	Crystallography and Mineralogy	PCC	4	3	1	0	3	0	25	-	25	50	-
3.	ESN-512	Geochemistry	PCC	4	3	0	2	3	0	15	25	20	40	-
4.	ESN-513	Igneous Petrology	PCC	4	3	0	2	3	0	15	25	20	40	-
5.	ESN-514	Structural Geology	PCC	4	3	0	2	3	0	15	25	20	40	-
		Total		**20**	15	1	8							
Semester-II (Spring)														
1.	ESN-521	Paleontology	PCC	4	3	0	2	3	0	15	25	20	40	-
2.	ESN-522	Metamorphic Petrology	PCC	4	3	0	2	3	0	15	25	20	40	-
3.	ESN-523	Geohydrology	PCC	4	3	0	2	3	0	15	25	20	40	-
4.	ESN-524	Advanced Geomorphology	PCC	4	3	1	0	3	0	25	-	25	50	-
5.	ESN-525	Economic and Ore Geology	PCC	4	3	0	2	3	0	15	25	20	40	-
6.	ESN-526	Field Training-I	PCC	2	-	-	-	-	-	-	-	-	-	-
		Total		**22**	15	1	8							
2nd YEAR					**Semester- I (Autumn)**									
1.	ESN-531	Sedimentology and Stratigraphy	PCC	4	3	0	2	3	0	15	25	20	40	-
2.	ESN-532	Geophysical Prospecting	PCC	4	3	0	2	3	0	15	25	20	40	-
3.		Elective-I	PEC	4	3	1	0	3	0	25	-	25	50	-
4.		Elective – II	PEC	4	3	1	0	3	0	25	-	25	50	-
5.		Elective – III	PEC	4	3	1	0	3	0	25	-	25	50	-
		Total		**20**	6	0	4							
Semester-II (Spring)														
1.	ESN-540	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
2.	ESN-541	Technical Communication	PCC	2	-	-	-	-	-	-	-	-	-	-
3.	ESN-542	Field Training-II	PCC	2	-	-	-	-	-	-	-	-	-	-
4.	ESN-543	Project	PR	8	-	-	-	-	-	-	-	-	-	-
5.		Elective – IV	PEC	4	3	1	0	3	0	25	-	25	50	-
		Total		**18**										
		Total Credits		**80**										

Program Elective Courses (M.Sc. (Applied Geology)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		ELECTIVES – I, II and III												
1.	ESN-601	Himalayan Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
2.	ESN-602	Computational Thermodynamic Modelling	PEC	4	3	1	0	3	0	25	-	25	50	-
3.	ESN-603	Isotope Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
4.	ESN-604	Coal Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
5.	ESN-605	Paleoecology	PEC	4	3	1	0	3	0	25	-	25	50	-
6.	ESN-606	Indian Mineral Deposits	PEC	4	3	1	0	3	0	25	-	25	50	-
7.	ESN-607	Engineering Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
8.	ESN-608	Mineral Exploration and Mining Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
9.	ESN-609	Petroleum Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
10.	ESN-610	Well Logging	PEC	4	3	1	0	3	0	25	-	25	50	-
11.	ESN-611	Plate Tectonics	PEC	4	3	1	0	3	0	25	-	25	50	-
		ELECTIVE – IV												
1.	ESN-620	Reservoir Geomechanics	PEC	4	3	1	0	3	0	25	-	25	50	-
2.	ESN-621	Principles of GIS	PEC	4	3	1	0	3	0	25	-	25	50	-
3.	ESN-622	Carbonate Sedimentology	PEC	4	3	1	0	3	0	25	-	25	50	-
4.	ESN-623	Marine Geology	PEC	4	3	1	0	3	0	25	-	25	50	-
5.	ESN-624	Mineral Economics	PEC	4	3	1	0	3	0	25	-	25	50	-
6.	ESN-625	Basin Analysis	PEC	4	3	1	0	3	0	25	-	25	50	-
7.	ESN-626	Remote Sensing	PEC	4	3	1	0	3	0	25	-	25	50	-
8.	ESN-627	Contaminant Hydrogeology	PEC	4	3	1	0	3	0	25	-	25	50	-
9.	ESN-628	Field Geology	PEC	3	0	0	6	0	6	-	50	-	-	50