

JIS UNIVERSITY

DEPARTMENT OF EARTH SCIENCES AND REMOTE SENSING

B.Sc GEOLOGY NEP2020 SYLLABUS

Semester	Discipline Specific Courses - Core	Minor	Interdisciplinary courses (IDC)	Ability Enhancement courses (language) (AEC)	Skill Enhancement courses /Internship /Dissertation (SEC)	Common ValueAdded Courses (CVC)	Total Credit
I			1 course	1 course	1 course	1	20
II			1 course	1 course	1 course	1	20
Students exiting the programme after securing 40 credits will be awarded UG Certificate in the relevant Discipline /Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship / Apprenticeship in addition to 6 credits from skill-based courses earned during first and second semester							
III			1 course	1 course	1 course	Nil	20
IV			Nil	1 course	Nil	Nil	20
Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in skill based vocational courses offered during first year or second year summer term.							
V			Nil	Nil	Internship	Nil	20
VI			Nil	Nil	Nil	Nil	20
Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline /Subject upon securing 120 credits							
VII							20
VIII					(Research Project/ Dissertation)		20

Broad Category of Course	Minimum Credit Requirement	
	3 years	4 years
Major (Core)	60	80
Minor Stream	24	32
Multidisciplinary	9	9
Ability Enhancement Courses (AEC)	8	8
Skill Enhancement Courses (SEC)	9	9
Value Added Courses common for all UG	6 to 8	6 to 8
Summer Internship	2 to 4	2 to 4
Research Project / Dissertation	0	12
	120	160

SEM	SUB TYPE	SUB	CREDIT
I	CoreI Major (Core)	Earth System Science Theory	4
	CoreII Minor Stream	Mineral Science Theory	4
	Core II Prac	Mineral Science I Laboratory	2
	IDC Multidisciplinary	Physics I: Thermal Physics	4
	IDC Multidisciplinary	Physics I: Thermal Physics Laboratory	2
	IDC Multidisciplinary	Mathematics I	4
	AEC	Basic English	2
	SEC	Disaster Management	3
	CVC	Human Values and Ethics	3
		SKILL-X	1
		SEMINAR	1
		TOTAL CREDIT	28

SEM	SUB TYPE	SUB	CREDIT
II	CoreI Major (Core)	Geomorphology	4
	CoreII Minor Stream	Structural geology	4
	CoreI Prac	Geomorphology Laboratory	2
	Core II Prac	Structural Geology Laboratory	2
	IDC Multidisciplinary	Mathematics II	4
	IDC Multidisciplinary	Physics II: Electricity and magnetism	4
	IDC Multidisciplinary	Physics II: Electricity and magnetism Laboratory	2
	AEC	English Advance	2
	SEC	Basic Field Geology	2
	CVC	Environmental Science	3
		SKILL-X	1
		SEMINAR	1
		TOTAL CREDIT	29

III	CoreI Major (Core)	Petrology I Theory	4		IV	CoreI Major (Core)	Petrology II Theory	4
	CoreII Major (Core)	Geochemistry Theory	4			CoreII Major (Core)	Stratigraphy and Palaeontology Theory	4
	CoreI III Minor Stream	Hydrogeology Theory	4			Core III Minor Stream	Economic Geology	4
	Core I Prac	Petrology I Laboratory	2			CoreI Prac	Petrology II Laboratory	2
	CoreI III Minor Stream	Hydrogeology Lab	2			Core II Prac	Stratigraphy and Palaeontology Lab	2
	IDC Multidisciplinary	Mathematics III	4				Summer Internship	4
	AEC	Entrepreneurship Development	2					
	SEC	Soft Skills in Geology	3			AEC	Basic Analytical Chemistry for Geologists	2
		SKILL-X	1				SKILL-X	1
		SEMINAR	1				SEMINAR	1
		TOTAL CREDIT	25				TOTAL CREDIT	22

V	CoreI	Remote Sensing and GIS Theory	4
	CoreII	Engineering Geology Theory	4
	CoreIII	Fossil Fuel	4
	CoreI Lab	Remote Sensing and GIS Laboratory	2
	CoreII Lab	Engineering Geology Laboratory	2
	CoreIII Lab	Fossil Fuel Practical	2
		SKILL-X	1
		SEMINAR	1
		TOTAL CREDIT	18
TOTAL CREDIT		140	

VI	Core I	Exploration Geophysics Theory	4
	Core II	Exploration Geophysics Practical	2
	SEC	Geological Field Mapping	4
	AEC	Mine Visit	4
	MOOCS	NPTEL	4
		SKILL-X	1
		SEMINAR	1
		TOTAL CREDIT	18