

Kurukshetra University, Kurukshetra

(Established by the State Legislature Act-XII of 1956)
("A++" Grade, NAAC Accredited)



Scheme of Examination for Post Graduate Programme M.Sc. Applied Geology

as per NEP 2020
Curriculum and Credit Framework for Postgraduate Programme

With Multiple Entry-Exit, Internship and CBCS-LOCF
With effect from the session 2024-25 (in phased manner)

DEPARTMENT OF GEOLOGY
FACULTY OF SCIENCE

KURUKSHETRA UNIVERSITY, KURUKSHETRA -136119
HARYANA, INDIA


Chairman
Department of Geology,
Kurukshetra University,
Kurukshetra-136119.

49 (1146)

**Programme Learning Outcomes (PLOs) for PG Programmes in Applied
Geology as per NEP-2020**

PLOs	Master Degree in Applied Geology
	After the completion of Master degree in Applied Geology the student will be able to:
PLO-1: Knowledge and Understanding	Demonstrate the fundamental and advanced knowledge of the subject and understanding of recent developments and issues, including methods and techniques, related to the Applied Geology .
PLO-2: General Skills	Acquire the general skills required for performing and accomplishing the tasks as expected to be done by a skilled professional in the fields of Applied Geology .
PLO-3: Technical/ Professional Skills	Demonstrate the learning of advanced cognitive technical/professional skills required for completing the specialized tasks related to the profession and for conducting and analyzing the relevant research tasks indifferent domains of the Applied Geology .
PLO-4: Communication Skills	Effectively communicate the attained skills of the Applied Geology in well-structured and productive manner to the society at large.
PLO-5: Application of Knowledge and Skills	Apply the acquired knowledge and skills to the problems in the subject area, and to identify and analyze the issues where the attained knowledge and skills can be applied by carrying out research investigations to formulate evidence-based solutions to complex and unpredictable problems associated with the field of Applied Geology or otherwise.
PLO-6: Critical thinking and Research Aptitude	Attain the capability of critical thinking in intra/inter-disciplinary areas of the Applied Geology enabling to formulate, synthesize, and articulate issues for designing of research proposals, testing hypotheses, and drawing inferences based on the analysis.
PLO-7: Constitutional, Humanistic, Moral Values and Ethics	Know constitutional, humanistic, moral and ethical values, and intellectual property rights to become a scholar/professional with ingrained values in expanding knowledge for the society, and to avoid unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
PLO-8: Capabilities/qualities and mindset	To exercise personal responsibility for the outputs of own work as well as of group/team and for managing complex and challenging work(s) that requires new/strategic approaches.
PLO-9: Employability and job-ready skills	Attain the knowledge and skills required for increasing employment potential, adapting to the future work and responding to the rapidly changing demands of the employers/industry/society with time.



Chairman
Department of Geology,
Kurukshetra University,
Kurukshetra-136119.

Kurukshetra University, Kurukshetra
Scheme of Examination for Postgraduate Programme M.Sc. Applied Geology
 as per NEP 2020 Curriculum and Credit Framework for Postgraduate Programmes
 (CBCS-LOCF) with effect from the session 2024-25 (in phased manner)


Framework-2
Scheme-P

Semester	Course Type	Course Code	Nomenclature of course	Theory (T)/ Practical (P)/Seminar (S)	Credits		Contact hours per week L: Lecture P: Practical S: Seminar				Internal Assessment Marks	End Term Examination Marks	Total Marks	Examination hours
					Total	L	S	P	Total					
1	CC-1	M24-GGY-101	Fundamentals of Geology-I	T	4	26	4	0	0	4	30	70	100	3
	CC-2	M24-GGY-102	Fundamentals of Geology-II	T	4		4	0	0	4	30	70	100	3
	CC-3	M24-GGY-103	Physics and Chemistry of the Earth	T	4		4	0	0	4	30	70	100	3
	CC-4	M24-GGY-104	Mineralogy and Crystallography	T	4		4	0	0	4	30	70	100	3
	PC-1	M24-GGY-105	Geology Lab-I (Practical based on M24-GGY-101, M24-GGY-102 & Field Work)	P	4		0	0	8	8	30	70	100	4
	PC-2	M24-GGY-106	Geology Lab-II (Practical based on M24-GGY-103 & M24-GGY-104)	P	4		0	0	8	8	30	70	100	4
	SEMINAR	M24-GGY-107	Seminar	S	2		0	0	0	2	0	50	50	1
	CC-5	M24-GGY-201	Palaeontology and Stratigraphy	T	4		4	0	0	4	30	70	100	3
2	CC-6	M24-GGY-202	Structural Geology and Tectonics	T	4	26	4	0	0	4	30	70	100	3
	CC-7	M24-GGY-203	Environmental Geology	T	4		4	0	0	4	30	70	100	3
	CC-8	M24-GGY-204	Sedimentology and Geomorphology	T	4		4	0	0	4	30	70	100	3
	PC-3	M24-GGY-205	Geology Lab-III (Practical based on M24-GGY-201, M24-GGY-202 & Field Work)	P	4		0	0	8	8	30	70	100	4
	SEMINAR	M24-GGY-206	Seminar	S	2		0	0	0	2	0	50	50	1

		201 & M24- GGY-202)												
PC-4	M24- GGY- 206	Geology Lab-IV (Practical based on M24- GGY- 203 & M24- GGY-204)	P	4		0	0	8	8	30	70	100	4	
CHM	M24- CHM- 201	Constitutional, Human and Moral values, and IPR	T	2		2	0	0	2	15	35	50	3	
Internship	M24- INT- 200	An internship course of 4 Credits of 4-6 weeks duration during summer vacation after IInd semester is to be completed by every student. Internship can be either for enhancing the employability or for developing the research aptitude.								50	50	100	-	
CC-9	M24- GGY- 301	Advanced Igneous and Metamorphic Petrology	T	4		4	0	0	4	30	70	100	3	
CC-10	M24- GGY- 302	Geohydrology	T	4		4	0	0	4	30	70	100	3	
DEC-1 (Any one from M24- GGY- 303/304/3 05/306)	M24- GGY- 303	Coal and Petroleum Geology	T	4		4	0	0	4	30	70	100	3	
	M24- GGY- 304	Geoscientific Instrumentation and Analytical Techniques	T	4		4	0	0	4	30	70	100	3	
	M24- GGY- 305	Isotope Geochemistry	T	4		4	0	0	4	30	70	100	3	
	M24- GGY- 306	Sequence Stratigraphy	T	4		4	0	0	4	30	70	100	3	
DEC-2 (Any one from M24- GGY- 307/308/3 09/310)	M24- GGY- 307	Engineering Geology	T	4	26	4	0	0	4	30	70	100	3	
	M24- GGY- 308	Computational Geology	T	4		4	0	0	4	30	70	100	3	
	M24- GGY- 309	Gemology	T	4		4	0	0	4	30	70	100	3	
	M24- GGY- 310	Geoexploration	T	4		4	0	0	4	30	70	100	3	
PC-5	M24- GGY- 311	Geology Lab-V (Practical based on M24- GGY- 301, M24- GGY-302 & Field Work)	P	4		0	0	8	8	30	70	100	4	
PC-6	M24- GGY- 312	Geology Lab-VI (Practical based on DEC-1 & DEC-2)	P	4		0	0	8	8	30	70	100	4	

	OEC (To be offered to the students of other departments)	M24-OEC-318	Geoscience and Society	T	2	2	0	0	2	15	35	50	3
	CC-11	M24-GGY-401	Geoinformatics	T	4	4	0	0	4	30	70	100	3
	CC-12	M24-GGY-402	Palaeoecology, Palaeoclimatology and Palaeogeography	T	4	4	0	0	4	30	70	100	3
	DEC-3 (Any one from M24-GGY-403/404/405/406)	M24-GGY-403	Applied Geochemistry	T	4	4	0	0	4	30	70	100	3
M24-GGY-404		Oceanography and Marine Geology	T	4	4	0	0	4	30	70	100	3	
M24-GGY-405		Surveying	T	4	4	0	0	4	30	70	100	3	
M24-GGY-406		Ore Geology and Mineral Economics	T	4	4	0	0	4	30	70	100	3	
4	DEC-4 (Any one from M24-GGY-407/408/409/410)	M24-GGY-407	Mining Geology	T	4	4	0	0	4	30	70	100	3
		M24-GGY-408	Disaster Management	T	4	4	0	0	4	30	70	100	3
		M24-GGY-409	Geomechanics	T	4	4	0	0	4	30	70	100	3
		M24-GGY-410	Field Geology	T	4	4	0	0	4	30	70	100	3
	PC-7	M24-GGY-411	Geology Lab-VII (Practical based on M24-GGY-401 & M24-GGY-402)	P	4	0	0	8	8	30	70	100	4
	PC-8	M24-GGY-412	Geology Lab-VIII (Practical based on DEC-3 & DEC-4)	P	4	0	0	8	8	30	70	100	4
	EEC	M24-GGY-413	Entrepreneurship Approaches in Geology	T	2	2	0	0	2	15	35	50	3
Or (Scheme of Semester IV when a student opts for Dissertation or Project Work)													
4	CC-11	M24-GGY-401	Geoinformatics	T	4	4	0	0	4	30	70	100	3

DEC-3 (Any one from M24-GGY-403/404/405/406)	M24-GGY-403	Applied Geochemistry	T	4	4	0	0	4	30	70	100	3
	M24-GGY-404	Oceanography and Marine Geology	T	4	4	0	0	4	30	70	100	3
	M24-GGY-405	Surveying	T	4	4	0	0	4	30	70	100	3
	M24-GGY-406	Ore Geology and Mineral Economics	T	4	4	0	0	4	30	70	100	3
DEC-4 (Any one from M24-GGY-407/408/409/410)	M24-GGY-407	Mining Geology	T	4	4	0	0	4	30	70	100	3
	M24-GGY-408	Disaster Management	T	4	4	0	0	4	30	70	100	3
	M24-GGY-409	Geomechanics	T	4	4	0	0	4	30	70	100	3
	M24-GGY-410	Field Geology	T	4	4	0	0	4	30	70	100	3
EEC	M24-GGY-413	Entrepreneurship Approaches in Geology	T	2	2	0	0	2	15	35	50	3
Dissertation/Project work	M24-GGY-414	Dissertation	D	12	0	0	0	-	0	300	300	-
TOTAL CREDITS				108	TOTAL MARKS						2700	


 Chairman
 Department of Geology,
 Kurukshetra University,
 Kurukshetra-136119.