

KANNUR UNIVERSITY
(Abstract)

MSc Geology programme - under Credit Based Semester System in Affiliated Colleges - Revised Scheme, Syllabus & Model Question Papers - implemented with effect from 2014 admission - Orders Issued.

ACADEMIC BRANCH

No. Acad/C2/ 8837/2014

Dated, Civil Station P.O, 31- 07-2014

- Read: 1.U.O No. Acad/C1/11460/2013 dated 12-03-2014
2. Minutes of the meeting of the Board of Studies in Geology (Cd) held on 26.09.2013
3. Minutes of the meeting of the Faculty of Science held on 25-03-2014
4. Letter dated 10/07/2014 from the Chairperson, BOS in Geology (Cd)

ORDER

1. The Revised Regulations for PG Programmes under Credit based Semester System (CBSS) were implemented in this University with effect from 2014 admission as per paper read (1) above.

2. As per paper read (2) above the Board of Studies in Geology (Cd) finalized the Scheme, Syllabus & model Question Papers of MSc Geology programme to be implemented with effect from 2014 admission.

3. As per read (3) above the Faculty of Science held on 25-03-2014 approved Scheme, syllabus & model question papers of MSc Geology programme to be implemented with effect from 2014 admission.

4. The Chairperson, Board of Studies in Geology (Cd) vide paper read (4) above has submitted the finalized copy of Scheme, syllabus & Model question papers of MSc Geology programme for implementation with effect from 2014 admission.

5. The Vice Chancellor, after examining the matter in detail, and in exercise of the powers of the Academic Council as per section 11(1) of Kannur University Act 1996 and all other enabling provisions read together with, has accorded sanction to implement the revised scheme, syllabus & model question papers of MSc Geology Programme with effect from 2014 admission.

6. Orders, are therefore issued implementing the revised scheme, syllabus & model question papers of MSc Geology programme under CBSS with effect from 2014 admission subject to report to Academic Council

7. Implemented revised Scheme, Syllabus & Model Question Papers are appended.

Sd/-
DEPUTY REGISTRAR (ACADEMIC)
FOR REGISTRAR

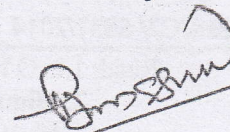
To:

1. The Principals of Affiliated Colleges offering M.Sc Geology Programme
2. The Examination Branch (through PA to CE)

Copy To:

1. The Chairperson, BOS Geology (Cd)
2. PS to VC/PA to PVC/PA to Registrar
3. DR/AR I Academic
4. Central Library
5. PA to FO
6. SF/DF/FC.

Forwarded/By Order



Section Officer



❖ For more details log on to www.kannur university.ac.in

Regm
01.03.14

KANNUR UNIVERSITY

POSTGRADUATE PROGRAMME

UNDER CREDIT BASED SEMESTER SYSTEM

(M.Sc. DEGREE COURSE)

in
GEOLOGY
2014 Admission onwards



SYLLABUS

Prepared by
BOARD OF STUDIES IN GEOLOGY (COMBINED)

2014

Under the financial support of
KERALA STATE HIGHER EDUCATION COUNCIL

KANNUR UNIVERSITY

MSc. GEOLOGY DEGREE PROGRAMME UNDER CREDIT BASED SEMESTER SYSTEM
(CBSS-PG)
(WITH EFFECT FROM 2014 ADMISSIONS)

PROGRAMME STRUCTURE AND SCHEME OF EXAMINATION

Sem	Course code	Title of the course	Ex am dur ati on	Hours /week	Total hours	credit	Marks		
							internal	external	total
I	GEO1C01	Geomorphology & remote sensing	3h	5	90	4	12	48	60
	GEO1C02	Crystallography & Mineralogy	3h	6	108	4	12	48	60
	GEO1C03	Geostatistics& Geoinformatics	3h	5	90	4	12	48	60
	GEO1C04	Marine Geology& atmospheric science	3h	5	90	4	12	48	60
	Practical @	Geomorphology Remote Sensing Crystallography and Mineralogy	0	4	72	0	0	0	0
II	GEO2C05	Structural Geology and Engineering Geology	3h	7	126	4	12	48	60
	GEO2C06	Quaternary Geology and Sedimentology	3h	7	126	4	12	48	60
	GEO2E01 or GEO2E02 or GEO2E03	Elective I	3h	7	126	4	12	48	60
	GEO2P01	Geomorphology Remote Sensing Crystallography and Mineralogy	4h	0	0	4	20	80	100
	GEO2P02	Sedimentology and Structural Geology	4h	4	72	4	20	80	100

III	GEO3C 07	Igneous and Metamorphic Petrology	3h	5	90	4	12	48	60
	GEO3C 08	Stratigraphy and Palaeontology	3h	5	90	4	12	48	60
	GEO3C 09	Geochemistry and Isotope Geology	3h	5	90	4	12	48	60
	GEO3 E04 or GEO3E05 or GEO3E06	Elective II	3h	4	72	4	12	48	60
	GEO3C 10	Field Mapping *	0	2	36	2	60	0	60
	Practical @	Igneous Petrology and Metamorphic Petrology , Palaeontology and Geochemistry	0	4	72	0	0	0	0
IV	GEO4C 11	Economic Geology and Mining Geology	3h	6	108	4	12	48	60
	GEO4C 12	Hydrogeology	3h	5	90	4	12	48	60
	GEO4 E07 or GEO4E08 or GEO4E09	Elective III	3h	5	90	4	12	48	60
	GEO4P 03	Igneous and Metamorphic Petrology Palaeontology and Geochemistry	4h	0	0	4	20	80	100
	GEO4P 04	Economic Geology and Hydrogeology	4h	4	72	4	20	80	100
	GEO4 (Pr)	Project/dissertation **	0	5	90	4	30	120	150
	GEO4C 13	Viva Voce	-	0	0	2	0	50	50
Total						80	338	1162	1500

*Students will be on deputation for Field Mapping Programme continuously for 35 hours (ie, 7 working days) at the end of III Semester.

**Students will be on deputation for dissertation work continuously for 90 hours (ie, 18 working days) at the end of IV Semester.

Hours and credit distribution for MSc. Geology Programme

Semester	No. of theory courses	No of practicals	Theory		Practicals		Field mapping		Project		Viva		Total hours	Total credits
			Hrs	C	Hrs	C	Hrs	C	Hrs	C	Hrs	C		
I	4	1	21	16	4	0	0	0	0	0	0	0	25	16
II	3	2	21	12	4	4+4	0	0	0	0	0	0	25	20
III	4	1	19	16	4	0	2	2	0	0	0	0	25	18
IV	3	2	16	12	4	4+4	0	0	5	4	0	2	25	26



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Total credits: 80

GEO 3C 10 - FIELD MAPPING

Students should be exposed to field mapping in hard rock terrain continuously for 7 days during or at the end of 3rd semester classes. Geological field mapping can be carried out by selecting an area of interest and identifying all the geological aspects of that area with the purpose of preparing a detailed geological report which must include a map. It is to equip the students for accepting a career of the geologist. Certain parameters must be considered when mapping geology, geological landforms and structures- accuracy and precision. The resulting geological map should be compiled and interpreted. All the features observed in the field may be super imposed over a topographic map or a base map. With the development of technology combination of satellite imagery, aerial photographs, high tech geological equipment and Geographic Information Systems (GIS) etc . can be combined to prepare the report. Exploitation of all natural resources requires the understanding of basic geology. Geological mapping is usually the first task in any reconnaissance study.

Phases of geological mapping

Field mapping projects are carried out in three phases which have a stepwise relationship.

1. Planning/research
2. Observing/mapping/collecting .The data may be collected in the form of photographs, measurements, notes and physical samples. It is advisable to plan for field studies during the dry seasons. It is in the best interest of everyone to commence mapping work very early in the morning so as to accomplish a substantial amount of work before the temperatures rise too high. Teamwork should be encouraged. A mapping project must be qualitative as well as quantitative.
3. Reporting -When all possible available data has been collected it is taken back to the laboratory for sorting, interpretation and analysis.

Tools and equipment used in geological field mapping

Toposheets , Aerial photographs and stereoscope , Brunton Compass/Clinometer: GPS(Geographic Positioning System) Geological hammer ,Hand held lens, Sample bags, Measuring tape, Field notebook, marker pens: Field camera etc.

Summary

The following can be said to summarize geological field mapping:

- For geological field mapping to be carried out efficiently, it is essential that proper planning is executed.
- Once in the field, it is also important to be as detailed as possible in all descriptions, to be keen and observant.
- Measurements must be performed meticulously and, if necessary, more than once for confirmation purposes.
- Team work must be adhered to, throughout the entire process.



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Marks: External (ESE): 120
Internal (CE): 30

Hrs/week: 5; Total Hrs: 90; Credits: 4

GEO 4 (Pr) - PROJECT / DISSERTATION

There shall be a project work with Dissertation to be undertaken by all students. The Dissertation entails field work, lab work, report, presentation and viva voce. Project work shall be carried out under the supervision of a teacher in the parent department. The candidate may be permitted to work on the project in an industrial / research organization on the recommendation of supervising teacher and the Head of the Department. In such cases, one of the teachers from the department concerned would be the supervisor/ internal guide and an expert from the industry/ research organization concerned shall act as co- supervisor/ external guide.

The project report shall be prepared according to the guidelines approved by the university. Two typed copies of the project report shall be submitted to the Head of the Department, two weeks before the commencement of the ESE of the final semester.

Every student has to do the project work independently. The project should be unique with respect to title, project content and project layout. Project report of students should not be identical.



A handwritten signature in green ink above a rectangular purple ink stamp. The stamp contains the text "PRINCIPAL" on the top line, "GOVERNMENT COLLEGE" on the middle line, and "KASARAGOD" on the bottom line.