Central University of Kerala

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Kasaragod, Kerala, India, 671123

DEPARTMENT OF GEOLOGY

No. CUK/GEO/BOS/MIN/2021/01 Dtd: 17/08/2021

Minutes of the 2nd Meeting of the 2th Board of Studies in Geology held online at 10.00 a.m. on 17/08/2021

The Department of Geology, Central University of Kerala conducted the Board of Studies (BoS) meeting on 17th August, 2021. It was the Second BoS meeting of the second Board of Studies. Due to the COVID-19 pandemic situation the meeting was conducted through online via Google Meet platform. The panel members included invited subject experts, Head of the Department, internal members and department faculties as special invitee. The attendees of the meeting were as follows: -

BoS Attendees:

Invited subject experts

- Prof. (Dr.) Rajneesh Bhutani, Professor, Department of Earth Sciences, Pondicherry University
- Prof. (Dr.) Rajesh Raghunath, Professor, Dept .of Geology, University of Kerala,
- Prof. (Dr.) Prakash Narasimha, K.N., Professor, Department of studies in Earth science, University of Mysore, Manasagangotri
- Dr. A. Anil Kumar, Director, Marine & Coastal Survey Division, Geological Survey of India, Manglaluru.

Internal members from the Central University of Kerala

- Dr. Pratheesh P., Assistant Professor and HOD (i/c), Dept. of Geology.
- Dr. Sijinkumar A.V., Assistant Professor, Dept. of Geology.
- Dr. S. Anbazhagi, Assistant Professor, Dept. of Environmental Science.

Special invitee from the Central University of Kerala

- Dr. Sandeep K., Assistant Professor, Dept. of Geology.
- Dr. Chandan Kumar B., Assistant Professor, Dept. of Geology.

The BoS meeting started with the welcome address by Dr. Pratheesh P., Head of the Department (i/c). Dr. Pratheesh P. gave a brief introduction on the objectives of the BoS meeting. Thereafter, he welcomed all experts and faculty to the meeting, and briefed the agenda of BoS meeting.

The agenda for discussion in the BoS meeting was proposed by the Head of the Department. The main items discussed in the BoS are given below:

(a) The inclusion of programme outcome and course outcomes in the syllabus of department of geology, central university of Kerala thereof.

(b) Consider the revised syllabus for 2021 admission

c) Inclusion of employment oriented courses in syllabus

The details of agenda-wise discussion and the final recommendation by the BoS are given below.

Agenda 1: The inclusion of programme outcome and course outcomes in the syllabus of department of geology, central university of Kerala thereof.

Dr. Pratheesh P. has explained the Faculty Council discussion regarding inclusion of programme outcome and course outcomes in the syllabus. Then Dr. Pratheesh P. invited the Board of Studies opinion. BoS members have accepted the proposed programme outcome and course outcome. Prof. Rajneesh Bhutani opined that there should be some integration of thinking skills in the programme outcome.

Recommendation: Following a detailed discussion on the contents, the members approved the inclusion of programme outcome and course outcomes in the Department of Geology, Central University of Kerala curriculum.

Agenda 2: Consider the revised syllabus for 2021 admission.

Dr. Pratheesh P. has presented the revised syllabus for 2021 along with proposed programme structure. BoS members have accepted the proposed programme structure with some small suggestions.

Prof. Rajneesh Bhutani pointed that Geochemistry was missing from the curriculum, which is very much essential for an earth science. After a long discussion, BoS has decided to incorporate Geochemistry as a compulsory elective paper. Prof. Prakash Narasimha has suggested the usage of 'Planetary Sciences' instead of 'planetary Geosciences'. Dr. A. Anil Kumar has suggested a title change for Oceanography as 'Oceanography and Marine Geology'. Prof. (Dr.) Rajesh Raghunath has recommended some modifications in sequence stratigraphy. Apart from this BoS has recommended a number of additions in the core course discussion.

Recommendation: After a detailed discussion on the revised syllabus, the members unanimously approved the new syllabus for MSc Geology programme in Department of Geology Central University of Kerala. All the recommendations from the experts have incorporated in the revised syllabus.

Agenda 3: Inclusion of employment oriented courses in syllabus.

Dr. Pratheesh P. has explained the feedback received from the Alumni through the Alumni Coordinator, on the inclusion of employability oriented courses. He also pointed that the faculty council has discussed the same and incorporated a new core course 'Geospatial Technology and Engineering Geology' in the proposed syllabus. BoS had a fruitful discussion on the syllabus framework of the newly inducted course.

Recommendation: Following a detailed discussion on the contents, the members approved inclusion of 'Geospatial Technology and Engineering Geology' as core course in the proposed curriculum.

After this, overall agenda discussed in the BoS were summarised by Dr. Pratheesh P. Thereafter, Dr. Sijinkumar A.V. offered the vote of thanks, which conluded the BoS meeting.

Dr. Pratheesh P.

Head (i/c), Department of Geology

CENTRAL UNIVERSITY OF KERALA
DEPARTMENT OF GEOLOGY
M.Sc. GEOLOGY

Course Code	EGE 5103	Semester	I
Course Title	Stratigraphy		
Credits	3	Type	Core

This is an employability based Field geology skill development course for bio and lithostratigraphy in Geological mapping

Course Description

Stratigraphy is the science of understanding the variations in the successively layered character of rocks and their composition. These rocks may be sedimentary, volcanic, metamorphic or igneous This program aims to teach systematic stratigraphy with special reference to Indian geology with special case studies of world stratigraphy. The students are equipped with different correlation methods and stratigraphic nomenclature.

Course Outcome

By the end of the course, students are expected to be able to:

- Define and apply the principles of stratigraphy in Geological problems, describe the evolution of Precambrian and Proterozoic stratigraphic units of India.
- Summarise the main environmental conditions that occurred in each geological period, illustrate the paleogeography, tectonic history of the Earth during the Precambrian and the Phanerozoic time, apply stratigraphic methods to analyse the evolution of past environments.
- To better understand the newer fields of stratigraphy, include Sequence stratigraphy, seismic stratigraphy, cyclostratigraphy, magnetostratigraphy and chemostratigraphy.
- Intellectual and practical skills in order to apply stratigraphic principles in order to understand the stratigraphy of an area. Compare between different methods of stratigraphic correlation and apply the suitable one in an area.

Course Structure

Module - 1

Development of Stratigraphy: Contributions of the pioneers of Stratigraphy, Code of stratigraphic nomenclature. Major incidents in the Earth's History. The concept of the Precambrian. Distinguishing features and classification of the Precambrian. Precambrian stromatolites, their status as time markers and classification of the Late Proterozoic.

Module - 2

Fundamental and newer classification of stratigraphy, Lithostratigraphy: Procedures for establishing, extending and naming of Lithostratigraphic units. Biostratigraphy: Nature of biostratigraphic units – Life communities and Death assemblages. Procedures for establishing and extending biostratigraphic units. Chronostratigraphy: Formal and Informal chronostratigraphic units, Procedures for establishing and naming of chronostratigraphic units. Concepts of Magnetostratigraphy, Chemostratigraphy, Event stratigraphy and Sequence stratigraphy.

Module - 3

Distribution of Precambrian rocks in India. Indian Standard stratigraphic column, hiatuses and breaks. Models for the evolution of Precambrian crust. Shields - cratons and mobile belts. Low-grade and high-grade terrains. Precambrian shield areas. Precambrian's of southern India. Palaeozoic stratigraphy: Palaeozoic formations of India with special reference to type localities, history of sedimentation and fossil content. Mesozoic stratigraphy: Mesozoic formations of India with special reference to type localities, history of sedimentation and fossil content. Gondwana Supergroup and Gondwanaland. Deccan Volcanics. Cenozoic stratigraphy: Cenozoic formations of India. Rise of the Himalayas and the evolution of Siwalik basin. Kerala and Cambay basins. Quaternary Stratigraphy – glacial and interglacial cycles. Paleogeography and major events during different periods. Age problems in stratigraphy.

Evaluation &Grading

Lab Assessment – 10%
Skill development (Analytical, Writing and Presentation) – 10%
Class Test – 20%

End Semester Assessment – 60%

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