



Introduction to Geology

Welcome to the fascinating world of geology! Geology is the study of the Earth, its composition, structure, and processes. It explores everything from rocks and minerals to mountains and oceans.

The Meaning of Geology

The word "geology" is derived from the Greek words "geo," "geo," meaning "earth," and "logos," meaning "study."

Geology, therefore, is the scientific study of the Earth, its composition, structure, and the processes that shape it over over time.



What is Geology?



Geology is a broad and diverse field that encompasses many different areas of study. It investigates the history of the history of our planet, the forces that shape its surface, and the resources it provides.

Rocks

The solid materials that make up the Earth's crust are called rocks.

Minerals

Minerals are naturally occurring substances with a specific chemical composition and crystalline structure.

Earth Processes

Geological processes, such as weathering, erosion, and plate tectonics, shape the Earth's surface.

Earth's History

Geology helps us understand the Earth's history, from its formation to the present day.

Mission and Vision



Our **mission** is to reach out to society and solve geological issues such as natural resource management, natural disaster mitigation, and climate change adaptation. We strive to be leaders in the field of geology, contributing to building a knowledge-driven society.

Our **vision** is to be a pioneering force in the geological sciences, driving innovation and discovery that positively impacts communities across the globe. We are committed to advancing the understanding of our understanding of our Earth's complex systems and leveraging this knowledge to create sustainable solutions.

Branches of Geology



1 Petrology

2 Mineralogy

3 Sedimentology

4 Stratigraphy

5 Paleontology

6 Structural Geology

7 Geochemistry

8 Geophysics

9 Hydrogeology

10 Volcanology

11 Seismology

12 Glaciology

13 Geomorphology

14 Geochronology

15 Planetary Geology





Importance of Geology

Geology is essential for understanding our planet and its resources.

It plays a crucial role in many aspects of our lives, from finding natural resources to mitigating natural hazards.

1 Resource Exploration

Geology helps us discover and extract valuable resources like oil, gas, and minerals.

3 Natural Hazard Mitigation

Geology helps us understand and prepare for natural hazards like earthquakes, volcanic eruptions, and landslides.

2 Environmental Management

Geological knowledge is crucial for managing environmental issues like pollution and waste disposal.

4 Sustainable Development

Geological principles guide sustainable development by ensuring the responsible use of Earth's resources.



Institutions

- Geological Survey of India (GSI)
- Coal India limited (CIL)
- Oil and Natural Gas Corporation
- Mineral Exploration Authority
- National Centre for Polar and Ocean Research (ESSO-NCPOR)
- National Geophysical Research Institute (CSIR-NGRI)
- Birbal Sahni Institute of Palaeobotany (BSIP)
- Survey of India (SOI)
- Wadia Institute of Himalayan Geology (WIHG)
- Institute of Science, Banaras Hindu University (ISc-BHU)
- National Centre for Earth Science Studies
- Central Ground Water Board
- Different IITs



Fieldwork

Fieldwork is an integral part of a geologist's job. It involves collecting data and samples in the field, allowing for first-hand observation and analysis.



Compass

Geologists use a compass to determine direction and orientation.



Rock Samples

Geologists collect rock samples to study their composition and age.




Maps

Maps are essential for navigating and recording data in the field.



Field Notebook

Geologists keep detailed notes of their observations and data.

A vibrant landscape painting of a mountain range with a river and waterfall. The scene is set in a valley with green hills and a blue sky with white clouds. The mountains are covered in snow and have sharp peaks. A river flows through the valley, cascading over rocks and forming a waterfall. The water is a bright blue color, and the surrounding vegetation is lush and green.

Discover your future in Geology.

PROGRAMMES OFFERED

- *B.Sc. Geology Hons*

About the Department

- *Advanced Laboratories*
- *Digital Classrooms*
- *Field Study Opportunities*
- *Experienced Faculty*
- *Comprehensive Curriculum*
- *Career Development Workshops*
- *Internships and Certificate courses*
- *Competitive exam guidance*



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Program Highlights

1

Fieldwork and Research

Gain practical experience through field trips and research projects, applying your knowledge in real-world settings.

2

Hands-on Learning

Develop essential skills in fieldwork, data analysis, and scientific communication through laboratory exercises and workshops.

3

Well equipped labs

State-of-the-art labs with advanced tools for comprehensive geological study.

4

Certificate courses

Enhance skills with specialized certificate courses in advanced geology topics.



A Glimpse of our Department



Petrology lab for advanced rock and mineral analysis.

FIELD WORKS DIARIES



- Field visits across diverse regions of India provide hands-on geological exploration, enhancing practical knowledge and real-world experience in geology.

Duration – 5 to 15 days.

National Fossil Wood Park, Sathannur, Tamil Nadu



Magnesite mines, Karya, Karnataka



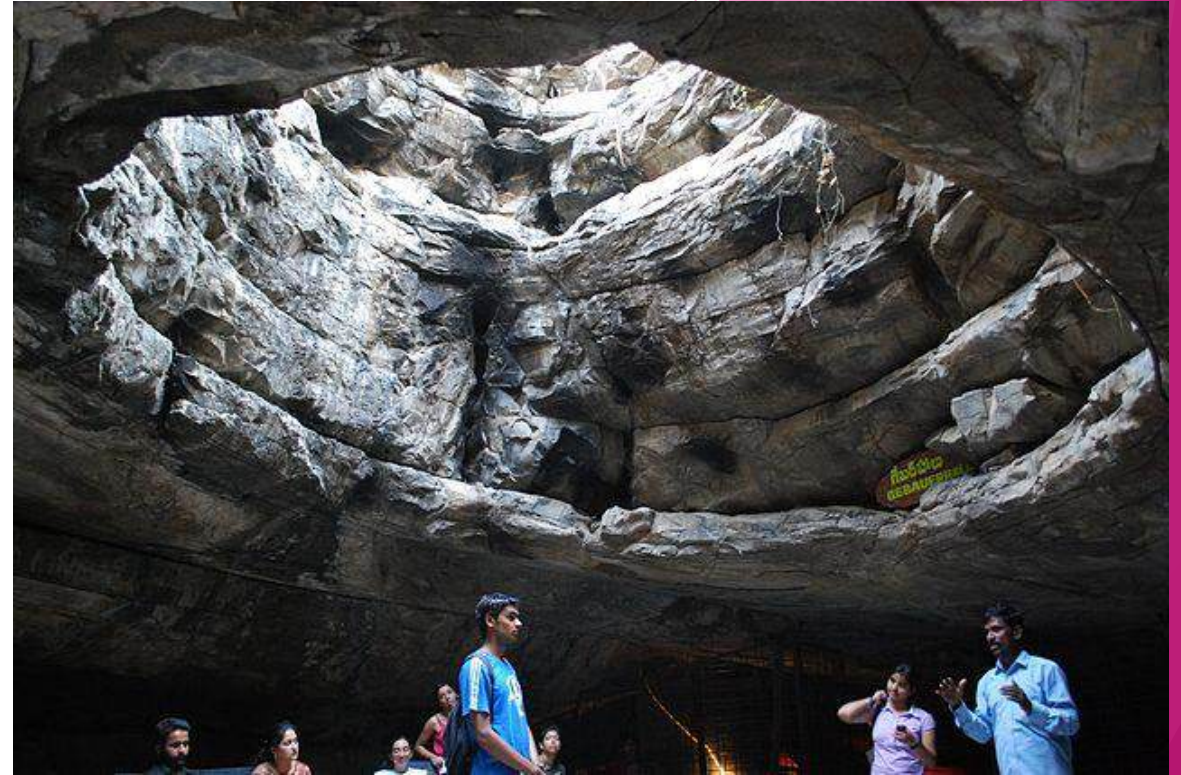
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In search of fossils at Ariyallur, Tamil Nadu



Mary Matha Granite mine, Dhoni, Kerala



Belum Caves, Karnataka



Admission Requirements

Eligibility Criteria: Candidates who have studied science subjects at Plus two level are eligible for admissions to B.Sc programme in Geology, since Geology is taught as a subject at plus two level in both Science and Humanities stream, those candidates who have studied Geology at Plus two level are also eligible for admission.

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How to Apply

Visit the website of Calicut University for detailed information about the application process, deadlines, and requirements. You can also contact our admissions office for any questions.





Conclusion and Q&A

Thank you for joining us today!

We hope this presentation has sparked your curiosity about geology. Now, let's open the floor for questions!



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