



Department of Geology
Government College (Autonomous) Rajahmundry

Report on Induction Training (Deeksharambh), Bridge Course and Core Assessment Test (CAT) in Geology for First-Year Undergraduate Students in B.Sc. Geology (Hons)- 2024.

Introduction to the Student Induction Program (SIP)

The Student Induction Program (SIP), also known as "*Deeksharambh*," is an initiative by the University Grants Commission (UGC) and is mandatory for all first-year students in higher education institutions. It is designed to help students transition seamlessly into their academic journey by familiarizing them with the institution's ethos, culture, and curriculum. The SIP provides students with a holistic orientation to their college life, including academic expectations, social responsibilities, and opportunities for personal growth. It includes sessions on communication skills, time management, stress management, and teamwork while emphasizing values such as discipline, ethics, and inclusivity. For disciplines like geology, the SIP is particularly valuable as it provides a foundational introduction to the subject, which may be entirely new for many students.

As per the general schedule given by the Academic cell of the college, the department of Geology has designed the Deeksharambh as given below. All the faculty of the department are involved in accomplishing the schedule given. Students are motivated to attend the program.

Schedule of Student Induction Program (Deeksharambh)

S.No	Date	1st Hour	2nd Hour	3rd Hour	No of Students
1	12 August 2024	Certificate Verification	Certificate Verification	Basic Data collection	18
2	13 August 2024	Data Collection	Department tour	College virtual tour	22
3	14 August 2024	Department webpage	Resources available on dept. page	Introduction to Online Resources	26
4	15 August 2024	Independence day celebrations			42



5	16 August 2024	Library Tour	Introduction to bridge course	Pre CAT Core Assessment Test	29
6	17 August 2024	Orientation Session About Department			35
7	18 August 2024	Human values and Professional Ethics	Introduction to Bridge course	Bridge Course	35
8	19 August 2024	Course Structure	CIE structure	Bridge Course	39
9	20 August 2024	Support Services NCC, NSS, YRC, RRC	Support Services NCC, NSS, YRC, RRC visit	Bridge Course	44
10	23 August 2024	Career Opportunities in Geology	Career Opportunities in Geology	Bridge Course	42
11	24 August 2024	Introduction to Community Service Project	Internship	Bridge Course	45
12	27 August 2024	Introduction to NEP 2020	Guest Lecture By Computer Science Department Faculty	Bridge Course	42
13	28 July 2024	Sports and games facilities	Sports tour	Bridge Course	43
14	29 August 2024	Familiarisation of ICT	Familiarisation of ICT	Bridge Course	43
15	30 August 2024	Bridge Course	Introduction to Online Courses Swayam, Edx etc	Gamification of Evaluation	44
16	31 August 2024	Closing remarks		Core Assessment Test	51

During the current Academic Year, i.e., 2024, a total number of 61 students have been admitted into B.Sc.Geology (Hons) through OAMDC. The list of students is provided at the end of this document. As all the admitted students have not studied Geology at their intermediate level, the Department of Geology has organized a



Bridge Course for 15 days for them during Deeksharambh (Student Induction Program) and conducted **Core Assessment Test** at the end.

Introduction about Bridge Course

The bridge course, introduced for first-year undergraduate students immediately after their admission, is designed to compensate for their limited prior exposure to geology. As a discipline, geology is integral to fields like environmental science, civil engineering, and natural resource management. Understanding its significance, this course equips students with fundamental knowledge and skills, providing a solid foundation for their academic journey in geology.

Objective

The primary objective of the bridge course is to familiarise first-year undergraduate students with the fundamental concepts, principles, and applications of geology. By the end of the course, students are expected to have a solid foundation in geology, enabling them to seamlessly integrate geological knowledge into their respective academic disciplines.

Course Structure:

- 1. Introduction to Geology:**
 - Definition and scope of geology
 - Branches of geology: physical geology, historical geology, and environmental geology
- 2. Rock Types and Formation:**
 - Identification of common rock types
 - Processes of rock formation (igneous, sedimentary, and metamorphic)
- 3. Mineralogy:**
 - Study of minerals and their properties
 - Classification of minerals
- 4. Earth's Structure:**
 - Layers of the Earth
 - Plate tectonics and their significance
- 5. Geological Time Scale:**
 - Understanding the concept of deep time
 - Major geological eras and periods
- 6. Structural Geology:**
 - Introduction to folds, faults, and joints
 - Stress and strain in the Earth's crust
- 7. Geomorphology:**
 - Landforms and their origin
 - Erosional and depositional landforms
- 8. Natural Resources:**



- Exploration and exploitation of geological resources
- Environmental implications of resource extraction

9. Future Prospects in Geology

- Employability opportunities in Geology
- Leading Employers in Geology
- Higher Studies/Research opportunities

Teaching Methodology

The course will employ a mix of lectures, laboratory sessions, and interactive discussions. Guest lectures by experienced geologists and hands-on activities in the laboratory will enhance the learning experience. Field visits to geological sites will provide students with practical insights and real-world applications of the concepts learned in the classroom.

Assessment

Assessment will be conducted through periodic quizzes, assignments, laboratory reports, and a final examination. The evaluation process is designed to gauge the students' understanding of both theoretical concepts and practical applications.

Core Assessment Test (CAT) in Geology

As part of the SIP, the Department of Geology conducts a specialized **Core Assessment Test (CAT)** to assess the understanding levels of newly joined B.Sc. (Geology) students. Prior to the CAT, a comprehensive **bridge course** is offered, introducing essential concepts in geology, such as the basics of rock types, Earth's structure, and natural resources. The detailed syllabus of the Bridge Course is given below. The CAT serves as a diagnostic tool to evaluate how well students have grasped these introductory concepts.

The primary goal of the CAT is to classify students into two categories: **slow learners**, who may need additional academic support, and **advanced learners**, who can be encouraged to take on more challenging topics. This classification allows the department to tailor subsequent teaching strategies to meet the diverse needs of the students effectively. By fostering an inclusive and supportive learning environment, the CAT ensures that every student is equipped to succeed in their academic journey, regardless of their starting point. This process reflects the core objectives of the SIP by promoting equity, adaptability, and academic excellence.

Expected Outcomes

1. **Foundational Knowledge:** Students will acquire a solid foundation in geology, enabling them to comprehend geological principles and phenomena.
2. **Application Skills:** The course will equip students with the skills to apply geological knowledge to real-world scenarios relevant to their respective academic disciplines.



3. **Interdisciplinary Integration:** Students will be able to integrate geological concepts into their chosen fields of study, fostering interdisciplinary perspectives.

Conclusion

The introduction of a bridge course in geology for first-year undergraduate students is a proactive step towards ensuring a well-rounded education. By addressing the gap in their geologic background, students will be better prepared to navigate their academic journey and contribute meaningfully to their chosen professions. This course lays the foundation for a holistic and interdisciplinary approach to education, aligning with the evolving needs of today's academic landscape. Further, the CAT made it possible to identify the understanding levels of the students and plan the future course of action in terms of teaching methodologies.

M.R. Goutham

Lecturer-in Charge

Department of Geology

Bridge Course (CAT) Instructors

1. Dr. M.R. Goutham, Lecturer in Geology
2. Dr. N. Srinivasa Rao, Lecturer in Geology
3. Mr. S. Venkatesh Lecturer in Geology
4. Dr. R. Anil Kumar, Lecturer in Geology
5. Mr. CH. Abhishek, Lecturer in Geology
6. Mr. B. Saikrishna, Lecturer in Geology



Photo Gallery









Geology - Core Assessment Test (CAT)

Total Marks: 20

Time: 30 minutes

Instructions:

- Answer All question
 - Each question carries 1 mark.
 - Choose the correct answer for each question.
-

- 1. What is the study of Earth and its processes called?** []
a) Biology b) Chemistry c) Geology d) Astronomy
- 2. Which of the following is a type of rock?** []
a) Mercury b) Marble c) Quartz d) Carbon dioxide
- 3. Which rock is formed from solidification of molten magma?** []
a) Sedimentary rock b) Metamorphic rock
c) Igneous rock d) Fossil rock
- 4. What is the main mineral in granite?** []
a) Quartz b) Diamond c) Copper d) Limestone
- 5. What is the Earth's outermost layer called?** []
a) Mantle b) Core c) Crust d) Inner core
- 6. Which of these layers is solid and composed mainly of iron and nickel?** []
a) Outer core b) Mantle c) Inner core d) Crust
- 7. Which of the following is the correct order of Earth's layers from surface to center?** []
a) Crust, Mantle, Outer core, Inner core
b) Crust, Outer core, Mantle, Inner core
c) Mantle, Crust, Outer core, Inner core
d) Inner core, Outer core, Mantle, Crust
- 8. How long is a geological time scale divided?** []
a) Decades b) Centuries c) Eons, Eras, Periods d) Days, Months, Years
- 9. Which type of rock is formed by the compression of layers of sediment over time?** []
a) Igneous b) Sedimentary c) Metamorphic d) Magmatic
- 10. Which of the following minerals is most commonly found in the Earth's crust?** []
a) Gold b) Quartz c) Diamond d) Salt



- 11. What does “mineral” refer to?** []
a) A type of soil b) A naturally occurring inorganic substance
c) A type of rock d) A man-made substance
- 12. What is the main element in the Earth’s crust?** []
a) Oxygen b) Carbon c) Hydrogen d) Nitrogen
- 13. Which geological feature is formed by the movement of tectonic plates?** []
a) Mountains b) Volcanoes c) Earthquakes d) All of the above
- 14. What is the process of rock formation through heat and pressure called?** []
a) Sedimentation b) Metamorphism
c) Erosion d) Crystallization
- 15. Which of the following is an example of a natural resource?** []
a) Oil b) Gold c) Water d) All of the above
- 16. What is the shape of the Earth?** []
a) Flat b) Spherical c) Oval d) Rectangular
- 17. What is the scientific study of landforms called?** []
a) Geomorphology b) Geography
c) Meteorology d) Hydrology
- 18. Which of these is a renewable resource?** []
a) Coal b) Natural gas c) Solar energy d) Gold
- 19. What is the process by which rocks break down into smaller pieces called?** []
a) Erosion b) Sedimentation c) Weathering d) Metamorphism
- 20. What is the primary focus of future geology studies?** []
a) Exploring other planets b) Understanding the Earth's future
c) Studying stars d) Exploring deep oceans



Answer Key:

1. c) Geology
2. b) Marble
3. c) Igneous rock
4. a) Quartz
5. c) Crust
6. c) Inner core
7. a) Crust, Mantle, Outer core, Inner core
8. c) Eons, Eras, Periods
9. b) Sedimentary
10. b) Quartz
11. b) A naturally occurring inorganic substance
12. a) Oxygen
13. d) All of the above
14. b) Metamorphism
15. d) All of the above
16. b) Spherical
17. a) Geomorphology
18. c) Solar energy
19. c) Weathering
20. b) Understanding the Earth's future



Government College (Autonomous) Rajahmundry Final List of Students After Phase I and Phase II								
S N o	OAMID	InterHall Tick etNo	CANDIDATE NAME	mobile_ no	GEND ER	Pha se	Progra mme	CAS TE
1	20240000 0832	24092119 95	TEDLAPU RAKESH	738645 8366	Male	I	Geology	OC
2	20240000 1264	23091418 20	MAHANTI DILEEP	903011 9758	Male	II	Geology	OC
3	20240000 2123	24092195 37	KARRI BALU	944165 7736	Male	II	Geology	OC
4	20240000 4880	24092122 69	VASAADI MANOHAR	970427 7023	Male	I	Geology	BC_ B
5	20240000 5387	24102219 57	BOINA SANTHOSH	949438 8628	Male	I	Geology	SC
6	20240000 5507	24093115 46	SAKILAY SUMITH	939233 0729	Male	I	Geology	SC
7	20240000 7819	23032364 41	KETHAMALL A VEERA DURGA	949132 3905	Male	I	Geology	OC
8	20240001 0454	23091429 75	SUNDARANE EDI SATISH	918226 2293	Male	I	Geology	OC
9	20240001 0666	24093121 60	KARAM CHAKRISH	831767 5552	Male	II	Geology	ST
10	20240001 3223	23091413 84	KOMARAM ABHISHEK KUMAR DORA	934625 6781	Male	I	Geology	ST
11	20240001 4059	24092107 47	KAKADA NAVYASRI	818590 4229	Female	I	Geology	SC
12	20240001 4370	24052157 07	MADI SURESH KUMAR DORA	630228 8935	Male	II	Geology	ST
13	20240001 5961	24092204 56	KARRI YATESWARI VEERA NAGA LAKSHMI	964249 0583	Female	I	Geology	OC
14	20240001 6555	24092232 10	IJJINA GOVINDAM MA	961857 5668	Female	I	Geology	SC
15	20240001 6583	24093106 12	KARAM SRI LOKESH	630471 5746	Male	II	Geology	ST
16	20240001 7244	24012262 45	BONGU CHARAN	879049 3682	Male	I	Geology	BC_ A



17	20240001 7618	24072192 95	YANAPU SEETHA RAMUDU	770248 5911	Male	II	Geology	BC_ A
18	20240002 3680	24053119 79	PANDAVULA BHEEMIRE DY	739665 4071	Male	II	Geology	ST
19	20240002 3730	24052143 31	UAIKA CHANDANA	955041 8616	Female	II	Geology	ST
20	20240002 4724	24093124 23	KARRI ASHOK KUMAR	798122 9579	Male	I	Geology	OC
21	20240003 1813	24053120 65	YATLA DIVAKARA REDDY	938195 7134	Male	I	Geology	ST
22	20240003 3079	24092204 23	ANDIBOYIN A VEERA VENKATA SATYA SAI PRASAD	630484 9997	Male	II	Geology	BC_ B
23	20240003 3538	24092200 76	BODIREDDY SYAM KUMAR	917722 5122	Male	I	Geology	BC_ D
24	20240003 3962	24072119 35	SIRAPARAPU V S S ANILTEJA	630234 2887	Male	I	Geology	BC_ D
25	20240003 4594	23081340 44	THUMMURI CHAITANYA	630344 1741	Male	II	Geology	BC_ B
26	20240003 6461	24092196 33	RAPAKA MERCY	630983 4954	Female	II	Geology	BC_ C
27	20240004 5873	23081329 73	PALLAPU TEJA SRI PHANI RAMA SUBRAHMA NYAM	810678 9527	Male	I	Geology	OC
28	20240004 6384	23091421 43	PAATAMSHE TTY VENKATA RAVI	630241 4050	Male	II	Geology	OC
29	20240004 7397	23081329 85	KADIYALA RAVI KISHORE	630573 1369	Male	I	Geology	BC_ B
30	20240004 8466	24092204 90	BHIMADOLU PRASANNA PAUL	918287 7303	Male	II	Geology	SC
31	20240004 9124	23081337 55	Devara Puri Jagannadh	891983 3147	Male	I	Geology	BC_ D



32	20240005 0801	24092109 19	BOTSA BHANU PRAKASH	778038 9388	Male	I	Geology	BC_ D
33	20240005 4769	23081334 6	ELLA SUJANA	779496 0174	Female	I	Geology	BC_ B
34	20240005 5924	23091429 68	SUNDARANI DI DURGA PRASAD	934620 9088	Male	I	Geology	OC
35	20240005 9406	23081359 69	UPPADA BHAVANI PRASAD	868879 2379	Male	I	Geology	BC_ D
36	20240005 9418	24092191 83	GUDA REVANTH	799330 7723	Male	I	Geology	SC
37	20240005 9522	24093103 80	VANAM VENKATA DURGA PRASAD	967674 8896	Male	I	Geology	OC
38	20240006 1183	23081345 70	BAIRISETTI RAMA VEERA NAGENDRA PRASAD	988590 9293	Male	II	Geology	OC
39	20240006 3194	KYG- DA/21- 20	JONNAKUTI RAJESH	958112 7599	Male	I	Geology	SC
40	20240006 6047	24073134 71	ANNAMRED DY PRASAD	939846 6952	Male	I	Geology	BC_ D
41	20240007 5013	24073107 09	BOMBOTHU LA ASHALATHA	779908 8223	Female	I	Geology	SC
42	20240008 0517	24093133 84	KOTHAPALL I DURGAPRAS AD	849895 4989	Male	II	Geology	OC
43	20240008 1450	22032590 07	TURRAM KESAVACHA NDRA VAMSI NARAYANA DORA	949274 0321	Male	I	Geology	ST
44	20240008 2316	24092165 35	PADALA CHANDRA VEERA SATYA SUBRAMAN YAM	949384 5668	Male	I	Geology	BC_ D
45	20240008 8196	23073218 19	DUTTARTHI ANAND	800898 8474	Male	I	Geology	SC



46	20240008 9012	22035160 10	PANDRUM PAVAN	784806 5336	Male	I	Geology	ST
47	20240009 4487	25609387	BALJI PAVANPRAK ASH	812558 5158	Male	I	Geology	OC
48	20240009 6976	22081316 05	Akula.Jitendra	630224 9363	Male	II	Geology	OC
49	20240009 7006	24072228 06	KOPPU CHINTU	954265 3010	Male	II	Geology	SC
50	20240009 8213	21035107 17	DEGALA MANIKANTA	810650 4174	Male	I	Geology	BC_ D
51	20240010 4056	24092201 56	DODDE PAUL BENSON	938145 1600	Male	I	Geology	BC_ C
52	20240010 6315	24095106 06	PALINGI ASHOK	995133 6949	Male	II	Geology	SC
53	20240010 7054	22081314 48	Pasupuleti.Vin ay Kumar	798901 5765	Male	I	Geology	OC
54	20240011 3014	20032118 69	MANGINA SATYA SAI RAMAKRISH NA	829769 0827	Male	I	Geology	OC
55	20240011 4677	24093124 36	KATIBOYINA NIKHITHA	901022 9334	Female	I	Geology	ST
56	20240012 2949	22045151 75	MAILE ANAND	818684 4526	Male	II	Geology	SC
57	20240012 9095	24092202 02	PILLI SUDARSAN	996310 7354	Male	II	Geology	BC_ B
58	20240016 8202	8386077	VEMAGIRI CHITRA	938197 5617	Female	I	Geology	SC
59	20240017 6235	24132434 62	BOKKILI PRIYANKA	812522 4851	Female	II	Geology	ST



Based on the performance in the CAT, students are identified as slow, moderate and advanced learners which is given below. Slow learners are given remedial coaching while moderate learners are given creative assignments and the advanced learners are given project based assignments and they are also encouraged to register for MOOC courses.

Student understanding levels based on CAT in B.Sc. (Geology) 2024-25

Sl.No.	Student_Name	Learning Level
1	Akula.Jitendra	Slow
2	Andiboyina Veera Venkata Satya Sai Prasad	Moderate
3	Annamreddy Prasad	Moderate
4	Balji Pavanprakash	Advanced
5	Bhimadolu Prasanna Paul	Slow
6	Bodireddy Syam Kumar	Moderate
7	Boina Santhosh	Slow
8	Bokkili Priyanka	Slow
9	Bombothula Ashalatha	Moderate
10	Bongu Charan	Moderate
11	Botsa Bhanu Prakash	Moderate
12	Degala Manikanta	Slow
13	Devara Puri Jagannadh	Moderate
14	Dodde Paul Benson	Slow
15	Duttarathi Anand	Advanced
16	Ella Sujana	Advanced
17	Gorle Sailatha	Advanced
18	Guda Revanth	Moderate
19	Gummalla Balaji	Moderate
20	Guttikonda Sai Manikanta Durga Venkat	Moderate
21	Ijjina Govindamma	Advanced
22	Jonnakuti Rajesh	Moderate
23	Kadiyala Ravi Kishore	Moderate
24	Kadiyala Tejaswini	Moderate
25	Kakada Navyasri	Moderate
26	Karingi Santhi Kumari	Slow
27	Karri Ashok Kumar	Moderate
28	Karri Balu	Moderate
29	Katiboyina Nikhitha	Moderate
30	Kethamalla Veera Durga	Moderate
31	Komaram Abhishek Kumar Dora	Moderate
32	Kothapalli Durgaprasad	Moderate
33	Madi Suresh Kumar Dora	Moderate
34	Mahanti Dileep	Moderate



35	Maile Anand	Moderate
36	Mangina Satya Sai Ramakrishna	Moderate
37	Mannepalli Lakshmi Priya	Moderate
38	Murla Raja Rajeswari	Slow
39	Padala Chandra Veera Satya Subramanyam	Moderate
40	Palingi Ashok	Moderate
41	Pallapu Teja Sri Phani Rama Subrahmanyam	Advanced
42	Pandrum Pavan	Slow
43	Pasupuleti.Vinay Kumar	Moderate
44	Peruri Lakshmi Venkta Satya Durga	Moderate
45	Pilli Sudarsan	Moderate
46	Rapaka Mercy	Moderate
47	Sakilay Sumith	Moderate
48	Siraparapu V S S Anilteja	Moderate
49	Sundaraneedi Satish	Moderate
50	Sundaranidi Durga Prasad	Moderate
51	Tedlapu Rakesh	Moderate
52	Theegala Lakshmi Prasanna	Moderate
53	Thummuri Chaitanya	Moderate
54	Turram Kesavachandra Vamsi Narayanadora	Moderate
55	Uaika Chandana	Slow
56	Uppada Bhavani Prasad	Moderate
57	Vanam Venkata Durga Prasad	Advanced
58	Vasaadi Manohar	Moderate
59	Vemagiri Chitra	Advanced
60	Yanapu Seetha Ramudu	Slow
61	Pamarthi Saidurgaprasad	Moderate



Category	No
BC_A	2
BC_B	6
BC_C	2
BC_D	8
OC	17
SC	13
ST	11
Grand Total	59



