

Semester Lecture Plan

| Name of the college: Government College of Arts, Science & Commerce, Sanquelim, Goa-India | | | | | | | |
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| Name of Faculty: Ms. Magnolia Aurea Miranda | | | Subject: Geology | | | | |
| Paper code: GEO-241 | | Program/Course: SY B.Sc. | | Division: | | | |
| Academic year: 2024 - 2025 | | Semester: III | | Total Lectures: 15 | | | |
| Course Objectives: | | | | | | | |
| <ol style="list-style-type: none"> 1. Discuss the occurrence of minerals in rocks and the processes involved in their formation. CL2 2. Describe the natural, synthetic, and organic gemstones. CL2 3. Describe the physical and optical properties of crystals and gemstones. CL1 | | | | | | | |
| Course Learning Outcome: | | | | | | | |
| <ol style="list-style-type: none"> 1. Explain the Physical and optical properties of crystals/gemstones. CL2 2. Examine imperfections in crystals and gemstones. CL3 3. Identify crystals and gemstones. CL3 | | | | | | | |
| Month | Lectures | | No. of lectures allotted | Topic, Subtopic to be covered | Exercise/ Assignment | ICT Tools | Reference books |
| JUNE | From: 28/6/24 | To: 29/6/24 | 1 | Minerals and Mineraloids | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| JULY | 1/7/24 | 6/7/24 | 1 | Occurrence of Minerals in rocks | | Projector | Sinkankas, J., (1969) |

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| | | | | | | | <i>Mineralogy: A First Course</i> |
| | 08/7/24 | 13/7/24 | 1 | Occurrence of Minerals in rocks | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 15/7/24 | 20/7/24 | 1 | Occurrence of Minerals in rocks | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 22/7/24 | 27/7/24 | 1 | Crystals and their characteristics - Faces, Systems, Symmetry, Forms | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 29/7/24 | 31/7/24 | 1 | Crystals and their characteristics - Faces, Systems, Symmetry, Forms | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| August | 1/8/24 | 3/8/24 | 1 | Gemstones - natural, synthetic gemstones and organic products | Assignment | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 5/08/24 | 10/8/24 | 1 | Physical and optical properties of crystals/gemstones | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |

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| | 12/8/24 | 17/8/24 | 1 | Physical and optical properties of crystals/gemstones | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 19/8/24 | 24/8/24 | 1 | Imperfections in Crystals | | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| | 26/8/24 | 31/8/24 | 1 | Internal Imperfections: Internal (point defects, Inclusions), Chatoyancy, Asterism | Assignment | Projector | Sinkankas, J., (1969) <i>Mineralogy: A First Course</i> |
| September | 9/9/24 | 14/9/24 | 1 | Factors deciding the cost of a gemstone | | Projector | Read, P. G., (1991). <i>Gemmology</i> |
| | 16/9/24 | 21/9/24 | 1 | Enhancement and Treatments of gemstones | Assignment | Projector | Read, P. G., (1991). <i>Gemmology</i> |
| | 23/9/24 | 28/9/24 | 1 | Synthesis of gemstones | Assignment | Projector | Read, P. G., (1991). <i>Gemmology</i> |
| October | 1/10/24 | 5/10/24 | 1 | Need for Faceting. Styles of cut | Assignment | Projector | Read, P. G., (1991). <i>Gemmology</i> |

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| | 7/10/24 | 12/10/24 | 1 | Revision | | | |
| | 14/10/24 | 19/10/24 | 1 | Revision | | | |

Assessment Rubrics

| Component | | Max Marks |
|-------------------|-----------|-----------|
| Theory | ISA 1 | 5 |
| | ISA 2 | 5 |
| Practical | ISA 1 | 5 |
| | ISA 2 | 5 |
| | ISA 3 | 5 |
| Project | - | - |
| Semester End Exam | Theory | 20 |
| | Practical | 40 |