

Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim, Goa-India

Name of Faculty: Brahmanand Narahari Sawant

Subject: Geology

Paper code: GEO-141, Space & Drone Based Remote Sensing

Program/Course: FY B.Sc.

Division:

Academic year: 2025- 2026

Semester: I

Total Practicals: 15

Course Objectives:

1. To describe remote sensing process.
2. To explain the applications of remote sensing in various fields.

Course Learning Outcome:

1. 1. Students will be able to explain the applications of remote sensing in various fields.

Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Learning outcome	ICT Tools	Reference books
June/July	June 19, 2025	June 28 2025	01	Introduction to Remote sensing instruments	Students will be able to know the definition of remote sensing		Reed, B. (2019). Physical principles of remote sensing.

JULY/AUGUST	June 30, 2025	July 5, 2025	01	Introduction to QGIS software	Students will be able to know about EMR	Cambridge University Press.
	July 7, 2025	JULY 12, 2025	01	Creation of FCC & TCC using QGIS	Students will be able to know about elements of Remote sensing	
	JULY 14, 2024	JULY 19, 2025	01	Visual Interpretation of False Color Composite Satellite Images	Students will be able to know how radiations interact with the atmosphere	
	JULY 21, 2025	JULY 26, 2025	01	Downloading and processing of Satellite Data	Students will be able to know about different types of remote sensing	
	July 28, 2025	August 2, 2025	01	Case study on Remote sensing Applications		
	August 4, 2025	AUGUST 9, 2025	01	Introduction to Aerial Photographs	Students will be able to	

August	AUGUST 11, 2025	AUGUST 16, 2025	01	Use of Pocket stereoscopes to get stereoscopic 3D vision	understand different types of platforms Students will be able to understand types of Sensors		
	August 18 2025	August 23, 2025	01	Visual interpretation of Aerial photographs			
	September 2 2025	September 6 2025	01	Problems on scale of aerial photographs			
	September 8 2025	September 13, 2025	01	Problems on Radial displacement due to relief in aerial photographs			
	September 15 2025	September 20 2025	01	Drone and parts of Drones			
	September 22 2025	September 27 2025	01	Hands on on Drone Operation			
	September 29	October 4 2025	01	Case study on use of			

	2025			Drones			
	October 6 2025	October 11 2025		Revision			
	October 13 2025	October 18 2025		Revision			

	Component	Max Marks
Assessment Rubrics	Practical ISA 1	05
	Practical ISA II	05
	Practical ISA III	05(Best 2 is considered)
	Theory ISA 1	05
	Theory ISA II	05 (Best 1 is considered)
	SEE Practical	40
	SEE Theory	20

