

Semester Practical 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: 2026- 2027

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 22, 2026	June 27 2026	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 29, 2026	July 4, 2026	01	Introduction to QGIS software	Students will be able to know about EMR	Cambridge University Press.
	July 6, 2026	JULY 11, 2026	01	Creation of FCC & TCC using QGIS	Students will be able to know about elements of Remote sensing	
	JULY 13, 2026	JULY 18, 2026	01	Visual Interpretation of False Color Composite Satellite Images	Students will be able to know how radiations interact with the atmosphere	
	JULY 20, 2026	JULY 25, 2026	01	Downloading and processing of Satellite Data	Students will be able to know about different types of remote sensing	
	July 27, 2026	August 1, 2026	01	Case study on Remote sensing Applications		
	August 3, 2026	AUGUST 8, 2026	01	Introduction to Aerial Photographs	Students will be able to understand	

August	AUGUST 10, 2026	AUGUST 15, 2026	01	Use of Pocket stereoscopes to get stereoscopic 3D vision	different types of platforms Students will be able to understand types of Sensors		
	August 17 2026	August 22, 2026	01	Visual interpretation of Aerial photographs			
	August 24 2026	August 29 2026	01	Problems on scale of aerial photographs			
	August 31 2026	September 5, 2026	01	Problems on Radial displacement due to relief in aerial photographs			
	September 7 2026	September 12 2026	01	Drone and parts of Drones			
	September 21 2026	September 26 2026	01	Hands on on Drone Operation			
	September 28 2026	October 3 2026	01	Case study on use of Drones			

	October 5 2025	October 14 2026		Revision			
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	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