

SEMESTER PRACTICAL PLAN								
Name of the College: Government College of Arts, Science and Commerce Sanquelim - Goa								
Name of Faculty: Ms. MITHALI HALARNKAR					Subject: Zoology			
Course code: ZOO-141 Skills for Zoologists					Program: F.Y.BSc		Division: -	
Academic year: 2025-26					Semester: I		Total Lectures: 30 (28 available)	
Credits: 02								
Course Objectives: 1. Recognize skills of observation and data collection in field. 2. Develop fundamental skills required for zoological research and field work. 3. Understand taxonomic methods for identifying and classifying animal species. 4. Teach protocols of handling hazardous waste, biomedical waste, and biological specimens.								
Course Learning Outcome: At the end of the course, students will be able to: 1. Demonstrate skills for observations of specimen in the field. 2. Use the common/ basic field and laboratory equipment. 3. Develop strategies to work effectively in ‘field’ and biological laboratory. 4. Plan safety protocols for ‘field’ and laboratory work.								
Month	Practicals /Labs Scheduled Date	No. of Practical	Experiment/Lab Work /			Reference books		
JULY	04/07/2025	1	Safety and conduct in a laboratory (Interpretation of safety symbols)			A. Upadhyay, K. Upadhyay, and N. Nath, Biophysical Chemistry Principles & Techniques Handbook. Himalaya Publishing House, 2003.		
	11/07/2025	2	Sterilization and handling of laboratory glasswares /					

			fluids/ reagents/ media	D. M. Harmening, Laboratory Management, Principles and Processes, 3rd ed. D.H. Publishing & Consulting Inc., 2012. I. H. Segel, Biochemical Calculations, 2nd ed. New York: John Wiley and Sons, 1997. R. H. Linville, and H. A. Kelly, A Guide for Laboratory and Field Work in Zoology, Boston: Ginn & Co., 2019. S. S. Lal, Practical Zoology: Vertebrate. Rastogi Publication, 2019.
	18/07/2025	3	Sterilization and handling of laboratory glasswares / fluids/ reagents/ media	
	25/07/2025	4	Preparations of Solutions	
AUGUST	01/08/2025	5	Handling laboratory instruments	
	08/08/2025	6	Handling laboratory instruments	
	22/08/2025	7	Study of parts of microscope and their functions, types, handling and use	
SEPTEMBER	12/09/2025	8	Types of staining techniques	
	13/08/2025	9	Types of staining techniques	
	19/09/2025	10	Demonstration of microtomy	
	26/09/2025	11	Demonstration of microtomy	
OCTOBER	03/10/2025	12	Chromatography (Paper and TLC)	
	10/10/2025	13	Gel Electrophoresis	
	17/10/2025	14	Exam	