

FACULTY OF AGRICULTURAL SCIENCES
UNIVERSITY OF THE PUNJAB, LAHORE

Programme	B.Sc. (Hons.)Agriculture	Course Code	FRW-201	Credit Hours	3(2-1)
Course Title	FUNDAMENTALS OF FORESTRY, RANGELAND AND WILDLIFE MANAGEMENT				
Course Introduction					
<p>The Fundamentals of Forestry, Range, and Wildlife covers the principles and practices of managing forests, rangelands, and wildlife habitats. This subject focuses on sustainable management techniques, conservation strategies, and the ecological importance of these natural resources. Students will learn about forest ecosystems, range management, wildlife biology, and the interrelationships between these environments. The course aims to equip students with the knowledge and skills necessary for responsible stewardship and conservation of natural resources.</p>					
Learning Outcomes					
<p>On the completion of the course, the students will:</p> <ol style="list-style-type: none"> 1. Importance of forests 2. Forests types of Pakistan 3. Rangeland and wildlife resources 4. Watersheds of Pakistan 					
Course Content				Assignments/Readings	
Week 1	1.1 Introduction to the course 1.1.1 introduction to forests and watersheds			General Discussion	
	Practical: Introduction				
Week 2	1.2 Forest types of Pakistan			Internet	
	Practical: Identification of species of different forest types				
Week 3	1.3 Importance of forestry and watershed resources of Pakistan			Internet	

	Practical: Identification of species of different forest types	
Week 4	1.4 Principles of sustainable forest management 1.4.1 principles of watershed management	Internet
	Practical: Study of land use patterns	
Week 5	1.5 Forestry practices 1.5.1 Role of forestry in environment and food security	Internet
	Practical: Study of land use patterns	
Week 6	1.6 Management problems and potential of various afforestation and watershed programmes	Internet
	Practical: Search on going programmes	
Week 7	1.7 hydrological cycle 1.7.1 watersheds as a source of power generation and irrigation	Internet
	Practical : Preparation of hydrological cycle models	
Week 8	1.8 research and education in forestry and watershed	Internet

	<p>Practical:</p> <p>Preparation of list of govt. and private organizations working</p>	
Week 9	MID TERMS	
Week 10	1.9 Introduction to rangelands	Internet
	<p>Practical:</p> <p>Basic terminologies</p>	
Week 11	1.10 Components of rangelands 1.10.1 constraints and problems of rangeland	
	<p>Practical:</p> <p>Identification of grasses of rangelands</p>	Internet
Week 12	1.11 rangeland resources of Pakistan	Internet
	<p>Practical:</p> <p>Identification of grasses</p>	
Week 13	1.12 grazing systems of the world 1.12.1 grazing systems of Pakistan	Internet
	Discussion	
Week 14	1.13 rangeland improvement techniques	Internet
	Quantitative analysis of range vegetation	
Week 15	1.14 introduction to wildlife 1.14.1 introduction to protected areas	Internet
	Practical :	

	Important wildlife species of pakistan	
Week 16	1.15 Non timber wood products 1.15.1 rangeland and wildlife products	Internet
	Practical : Data collection for forest , rangeland and wildlife products	
Textbooks and Reading Material		
<ol style="list-style-type: none"> 1. Grazing Management by Vallentine, F. John 2000. Academic Press (Elsevier Science and Technology Books). 2. Range Management: Principles and Practices (6th Edition) by Jerry L. Holechek, Rex D. Pieper and Carlton H. Herbel Deceased. (2010). 3. Prentice Hall, Inc. Newberry. USA. 4. Range Management in Pakistan by Quraishi M.A.A., G.S. Khan and M. S. Yaqoob. 1993. University of Agriculture, Faisalabad. 5. Rangeland Management in Pakistan by Mohammad N. 1989. NARC Published by ICIMOD. 6. Trees on the Farm by Franzel S. and S.J. Scherr. 2001. CAB International. 7. Manual of Silviculture for Pakistan by Champion H.G. et al. 1967. Pakistan Forest Institute, Peshawar. 8. Basics of Forestry and Allied Sciences by Quraishi M.A.A. 1999. A-One Publishers, Urdu Bazar, Lahore. 9. Introduction to Forestry by Sharpe G.W., C.W. Hendee and W. F. Sharpe. 1986. McGraw-Hill Book Co., New York. 10. Forests and Forestry in Pakistan by Sheikh M.I. 1999. A-One Publishers, Urdu Bazar, Lahore. 11. Watershed Management in Pakistan by Quraishi M.A.A. 2002. Department of Forestry. 		
Teaching Learning Strategies		
<ol style="list-style-type: none"> 1. Lectures, 2. Discussions 3. Presentations 4. Quiz 5. Assignment 		
Assignments: Types and Number with Calendar		
<ol style="list-style-type: none"> 1. Preparation of herbarium of trees 2. Range grasses herbarium 3. Report preparation of different oraganizations 		

Assessment

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.