

<b>Semester</b>	<b>4</b>		
<b>Course code</b>	<b>ZOOL 22552</b>		
<b>Course Name:</b>	<b>Applied Ecology Laboratory</b>		
<b>Credit Value:</b>	2		
<b>Core/Optional</b>	Core		
<b>Pre requisites</b>	<b>ZOOL 12531</b>		
<b>Co-requisites</b>	<b>ZOOL 22543</b>		
<b>Hourly Breakdown</b>	Theory	Practical	Independent Learning
	--	70	30
<b>Course Aim/Intended Learning Outcomes:</b>			
After completion of the course unit, the student will be able to;			
<ul style="list-style-type: none"> <li>➤ sample terrestrial and aquatic habitats using appropriate techniques,</li> <li>➤ use basic ecological techniques for understanding ecosystem functioning,</li> <li>➤ apply ecological indices to assess communities,</li> <li>➤ assess the ecological adaptations of animals in relation to their habitats, and</li> <li>➤ analyse, interpret and present ecological data in scientific manner.</li> </ul>			
<b>Course Content:</b>			
Sampling techniques for terrestrial, aerial, soil and aquatic animals; Study of soil ecosystems; Diversity indices; Estimation of the size of animal populations; Measurement of water quality; Limiting factors and their effect on animals; Identification of animals in the brackish water, freshwater and marine ecosystems and their ecological adaptations; Construction of life tables and key factor analysis, Climatic diagrams, Demography in terrestrial habitats Field studies on terrestrial, freshwater, brackish water and marine ecosystems.			
<b>Teaching /Learning Methods:</b> A combination of laboratory and field studies and computer based learning.			
<b>Assessment Strategy:</b> Continuous assessment and end of course examination.			
Continuous Assessment 20%		Final Assessment 80%	
Details: Field reports 20%		Theory (%) NA	Practical (%) 80%
		Other (%) (specify) NA	
<b>Recommended reading:</b>			
<ol style="list-style-type: none"> <li>1. Brower, J. E., J. H. Zar, C. N. Von Ende (1997). Field and Laboratory methods for General Ecology. 4<sup>th</sup> Edition. McGraw-Hill, Boston.</li> <li>2. Chalmers, N. &amp; P. Parker (1996). Fieldwork and Statistics for Ecological Projects: The OU Project Guide, London.</li> <li>3. Enger, E. D. &amp; B. F. Smith (2012). Field laboratory exercises in environmental science, 7th edition. McGraw-Hill, New Jersey.</li> <li>4. Krebs, C.J. (1999). Ecological Methodology, Addison-Welsey Educational Publishers, New York.</li> <li>5. Magurran A. (2004). Measuring biological diversity, Wiley.</li> <li>6. Southwood, T. R. E. &amp; P. A. Henderson (2000). Ecological Methods, 3rd Edition, Wiley-Blackwell.</li> </ol>			