

<b>Faculty</b>	Natural Sciences		
<b>Home Department</b>	Statistics and Population Studies		
<b>Module Topic</b>	Inference and Regression		
<b>Generic Module Name</b>	Statistics 221		
<b>Alpha-numeric Code</b>	<b>STA221</b>		
<b>NQF Level</b>	6		
<b>NQF Credit Value</b>	20		
<b>Duration</b>	Semester		
<b>Proposed semester to be offered</b>	Second Semester		
<b>Programmes in which the module will be offered</b>	BSc (Computer Science) (3221,3023); BSc (Mathematics and Statistical Sciences) (3227,3031)		
<b>Year level</b>	2		
<b>Main Outcomes</b>	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> <li>• Perform statistical inference with the use of estimation and hypothesis tests.</li> <li>• Explore linear models in more detail.</li> <li>• Perform analysis of variance and categorical data analysis.</li> </ul>		
<b>Main Content</b>	<ul style="list-style-type: none"> <li>• Inference and Regression</li> <li>• Central Limit Theorem</li> <li>• Transformations;</li> <li>• Point and interval estimation;</li> <li>• Hypothesis tests</li> <li>• Regression analyses using matrices</li> <li>• ANOVA</li> <li>• Categorical data analyses</li> </ul>		
<b>Pre-requisite modules</b>	STA211 (at least qualified to write the exam for STA211)		
<b>Co-requisite modules</b>	None		
<b>Prohibited module Combination</b>	None		
<b>Breakdown of Learning Time</b>	<b>Hours</b>	<b>Timetable Requirement per week</b>	<b>Other teaching modes that does not require time-table</b>
<i>Contact with lecturer / tutor:</i>	60	<i>Lectures p.w.</i>	3
<i>Assignments &amp; tasks:</i>	40	<i>Practicals p.w.</i>	2
<i>Practicals:</i>	30	<i>Tutorials p.w.</i>	0
<i>Tutorials:</i>	0		
<i>Tests &amp; Examinations:</i>	5		
<i>Selfstudy:</i>	65		
<i>Other:</i>	0		
<b>Total Learning Time</b>	<b>200</b>		
<b>Methods of Student Assessment</b>	Continuous Assessment (CA): 50% Final Assessment (FA): 50%		
<b>Assessment Module type</b>	Continuous and Final Assessment (CFA)		