

Module code	SS-4310		
Module Title	Computer Security		
Degree/Diploma	Bachelor of Science (Computer Science)		
Type of Module	Major Option		
Modular Credits	4	Total student Workload	10 hours/week
		Contact hours	4 hours/week
Prerequisite	SS-2205 Computer Networks		
Anti-requisite	None		
Aims			
This module gives an overview of different aspects of computer security and introduces techniques to address security related issues.			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	20%	- explain the various aspects of computer security	
Middle order :	60%	- use formal models to assess the strength of particular system configurations - formulate protection plan against various vulnerabilities and attacks - use cracking tools to locate security holes	
Higher order:	20%	- analyse program source for security problems - apply security tools to protect computer systems	
Module Contents			
<ul style="list-style-type: none"> - Theoretical and practical aspects of computer security - Theoretical aspects: information theory, cryptography and formal models of belief and trust practical aspects: encryptions, digital certificates, authentications, access controls, - security protocols, firewalls and filtering - Non-technical aspects: security policy and recovery management - Security concern: understanding attacks like memory corruption, code injection password cracking and session hijacking 			
Assessment	Formative assessment	Interactive Quizzes and Feedback	
	Summative assessment	Examination: 50% Coursework: 50% - 2 class tests (10%) - 2 written assignments (40%)	