Module Code	SS-4302			
Module Title	Artificial Intelligence			
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
Pre-requisite	SS-1203 Programming Fundamentals 2			
Anti-requisite	SS-2207 Introduction to Artificial Intelligence and Soft Computing			

Aims

This module exposes the student to basic artificial intelligence techniques, with a focus on how different problem-specific heuristics play an important role in making these techniques time and resource efficient. In addition, the student will learn to program simple software using these techniques.

Learning Outcomes
On successful completion of this module, a student will be expected to be able to:

Lower order:	20%	- describe the different heuristics and search strategies
Middle order:	60%	- apply various search strategies and knowledge representation schemes - apply various reasoning techniques
Higher order:	20%	- build expert systems - write programs using declarative languages

Module Content

- History of artificial intelligence; Heuristics; Search techniques; Game playing; Constraint satisfaction problem; Propositional and predicate logic;
- Expert systems; Knowledge representation; Decision trees;
- Reasoning: Probabilistic reasoning, non-monotonic reasoning, reasoning on action and change, reasoning under uncertainty, temporal and spatial reasoning, inductive reasoning;
- Fuzzy sets; Logic programming; Expert systems; Agents and agent-based systems;
- Planning systems; Sub-symbolic systems; Learning techniques.

Assessment	Formative assessment	Interactive Quizzes and Feedback
	Summative assessment	Examination: 50%
		Coursework: 50% - 2 class tests (20%) - 2 written assignments (30%)