ISCG7444:   Cloud Application Design and Development

Course number:	ISCG7444 Level: 7	Credits:	15
Main programme:	BCS	Delivery:	One Semester (Full-time)
Endorsement:	Elective	Hours directed:	39
Other programmes:	GDCMP	Hours self-directed:	111
Prerequisites:	For BCS: ISCG5421 or ISCG6420	Total hours:	150
	For GDCMP: ISCG6420 or as approved by the Programme Leader		
Co-requisites:	N/a	Number of weeks:	16 weeks (full-time)
Restrictions:	N/a		
Entry requirements:	N/a		

Students are expected to adhere to Unitec's policy on conduct in respect of staff, fellow students, and in the use of resources and facilities.

NZQA Level Descriptor:

	Knowledge	Skills	Application
7	*knowledge of a major discipline with areas of specialization in depth* *the analysis, transformation and evaluation of abstract data and concepts* *the creation of appropriate responses to resolve given or contextual abstract problems*	*require a command of highly specialised technical or scholastic and basic research skills across a major discipline* *involve the full range of procedures in a major discipline* *are applied in complex, variable and specialised contexts*	*in planning, resourcing and managing processes* *within broad parameters and functions with complete accountability for determining, achieving and evaluating personal and/or group outcomes.*

Course aim: This course explores the best practices and emerging principles for the design & development of cloud-based applications.

Learning outcomes:
1.   Develop specialist knowledge and critical understanding of Cloud computing concepts and technologies in order to solve real-world problems.
2.   Analyse software engineering methods used for designing, developing, and implementing Cloud-based software solutions.
3.   Investigate cloud-based software development techniques, including types of cloud infrastructure, providers, and cloud-based services in response to requirements specifications.
4.   Develop a cloud-based application using industry standard tools and techniques.

Topics/Content outline:
Introduction to Cloud computing

Foundations of Cloud Technologies
• Distributed Computing
• Virtualisation
• Service Oriented Computing

Cloud Computing Core Concepts
• Definition of Cloud Computing
• Types of Cloud