Module Descriptor: BAM 243 IT Infrastructures

Module Name:	IT Infrastructures
Level/Credits:	Level 2, 15 Credits
Module Aim:	This module is the second part of the theme running through the course considering the application and impact of information systems (BAM106), and technology on organisations leading to Information Systems Strategy (BAM 318). It also aligns with the technical modules that consider PC focused computer architectures and website implementation and design. The aim of this module is to: • Enable students to appreciate the importance and implications of the multi-user IT approaches that are more prevalent in the world of work. • Develop an understanding of the technology and design of enterprise systems and architectures that have capacity beyond the desktop. The emphasis of the course will be on approaching these aims from a general management perspective rather than a detailed technical evaluation.
Learning Outcomes:	On successful completion of this module students will: • Have developed an understanding of the difference between the demands of desktop and multi-user computing and recognise the need for developing a holistic approach to an organisations information systems infrastructure. • Recognise developments in systems architectures from simple one to one integration up to present day thinking in enterprise architectures, grid computing and 'agile' computing. • Understand the principles of systems development and management including the need for data management, reliability and security in a multi-user system. • Be able to articulate basic principles of data based network communications, the different types of network topologies and the associated business benefits and apply them to the design of simple systems. • Recognise the different characteristics of multi-user programming languages and operating systems. • Be able to assess the suitability of different systems in various contexts.

Curriculum Content:	This module will begin by introducing the need for an information systems infrastructure to support an organisation and develop the concept of an enterprise architecture. The constituent components will be explored and will include: • Systems architectures – their development and differences • Software architectures – to include a simple introduction to, and comparison of, different programming types and operating systems • Data management and storage • Network architectures • Service oriented architectures – including web services Within the context of the enterprise, students will further explore the issues of systems management, reliability and security and advanced agile architectural concepts.
Learning Strategy:	The theoretical content of the module will be presented through lectures, demonstrations and workshops. Students will also be expected to use suitable reference sources, and especially the Internet to extend their understanding of the issues covered. Practical work will complement theoretical learning and will focus on (practical) skills that will be relevant and useful beyond the end of the course. Simulation tools will also be used to support learning. A case study will be used during part of the course, with a view to evaluating the requirements for and issues associated with implementing a small system.
Assessment:	**Formative:** Formative assessment is through the students continuing demonstration of their skills in 'managing tasks and projects', 'self-motivation,' presentations and 'problem solving capability'. It will also occur through tutor feedback during workshop and study sessions.

	Summative: **Examination (50%)** Assessment will consist of a two-part assignment. The theoretical content of the module will be assessed through a one-and-a-half hour exam covering the concepts underlying information systems infrastructures including; principles of data communication, comparison of different programming languages and operating systems, various aspects of systems management and data management. (1750 words equivalent). **Report (50%)** This will be of equal weight and will consist of a report, to be targeted at the board of a business that presents the findings of the case study evaluation undertaken to define the requirements and issues associated with implementing a small business system. (1750 words equivalent).