

## Module: Information Systems 171

<b>Module name:</b>	Information Systems 171
<b>Code:</b>	INF171
<b>NQF level:</b>	5
<b>Type:</b>	Core – Bachelor of Information Technology
<b>Contact Time:</b>	48 hours
<b>Structured time:</b>	8 hours
<b>Self-directed time:</b>	64 hours
<b>Notional hours:</b>	120 hours
<b>Credits:</b>	12
<b>Prerequisites:</b>	None

### Purpose

The purpose of this course is to equip students with the knowledge and competencies to understand Information Technology (IT) as a key enabler of business transformation. This course is designed to introduce the key components of information systems and how these can be integrated and managed to support business decisions and create competitive advantage. At the end of the course, students will have an appreciation of the activities undertaken in acquiring and successful implementation of an information system in organisations and society.

### Outcomes

Upon successful completion of this module, the student will be able to:

- Demonstrate an informed understanding of the main areas of information systems including key terms, concepts, facts as they relate to current business examples.
- Select and apply specialised information systems effectively to assist in decision making and to plan and manage an implementation process across business disciplines within a well-defined, familiar and supported environment.
- Identify and evaluate different operating models from a problem-solving perspective based on how they relate to different types of information systems, with a sound understanding of each model's applicability and capability.
- Take account of, and act in accordance with ethical and professional codes of conduct such as privacy and ethical issues in IT.
- Present and communicate reliably, accurately and coherently complex information regarding the business benefits, difficulties and drawbacks of implementing applications on the internet.

### Assessment

Assessment is performed using the following instruments:

- Continuous evaluation of theoretical work through a written assignment, two formative tests, and a summative test.
- Continuous evaluation of project work, whereby the student report on the outcome of a chosen information system for a given scenario.

- Final assessment through a written examination.

## Teaching and Learning


### Learning materials

- Lecturer hand-outs and samples.

### Prescribed Book

- Information Systems: Specialised systems – IT without frontiers.

### Additional Material

-  Bocij. P., Greasley. A, and Hickie. S. (2015). *Business Information Systems: Technology, Development and Management for the E-Business*, 5<sup>th</sup> edition, Pearson. [ISBN-13: 978-0273736455].

### Learning activities

This course will be taught through presentation of theoretical concepts, exercises and discussions. It is dialogue-oriented with a practical approach, with mandatory assignment and project which must be completed during the course.

### Notional learning hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		40.0		28.0
Formative feedback		5.0		
Project	1	3.0		9.0
Assignment	1			3.0
Test	3		6.0	11.0
Exam	1		2.0	13.0
		<b>48.0</b>	<b>8.0</b>	<b>64.0</b>

### Syllabus

- Introduction to information systems and types of business information systems.
- Strategic uses of information technology.
- System software and application software.
- Database systems: organising data in the database, retrieving data from the database and business intelligence.
- Acquiring information systems, bespoke development, off the shelf software, end-user developed software, factors affecting software acquisition, information development and the systems development Life cycle.
- E- Business: e- commerce and m-commerce.
- Networks and networking components including the internet and the World Wide Web, web enabled business, intranets and extranets, the World Wide Web and web browsers and Servers.

- Information systems security: Security threat to information systems, reducing the threat to information systems, types of controls, techniques for controlling information systems and security threat to internet services.