Information Systems
Undergraduate
Unit Descriptions

Core Introductory Units

Business Information Systems
This unit introduces the concepts of information systems in a business environment. It examines what is meant by information systems and why they are being used in business. The unit explores how information systems are being used and the issues involved in developing, managing and controlling business information systems.

Data Management
Students will be introduced to concepts and techniques necessary for the effective organisation, manipulation and analysis of shared data. Students will learn how to apply these concepts with an emphasis on relational databases. XML and SQL are introduced as commonly used languages to manage data.

Programming & Problem Solving
This is the first programming unit. You might think that you know how to program already but this unit teaches you to program in a systematic manner with a design that reflects the structure of the problem to be solved. Currently the programming language used is Java.

Accounting & Financial Decision Making
Students develop an understanding of the role that accounting plays in various aspects of financial decision making. Students develop a conceptual overview of the profit and wealth measurement process, and of the major financial statements which provide information about business performance and financial position.

Introduction to Management
Students receive an introduction to management concepts, functions and strategies. Students explore the context surrounding management functioning, including an analysis of the broad environment in which organisations operate, the internal dynamics of organisational life, and the ethical climate that underpins sound management.

Elective Introductory Units

Web Management
Students will gain an understanding of the management issues associated with designing and developing content for a website. In this unit you will learn the technologies used for web application development. The unit includes the introduction of web related protocols, advanced HTML/XHTML.

Computer Systems Fundamentals
This unit introduces you to foundation concepts of modern computer systems architectures and their operating systems.

Core Intermediate Units

Business and Information Analysis
This unit contains a number of organizational problem-solving methodologies pioneered in Europe and USA that are people-centred yet suitable for analyzing potential technology applications. Students will be able to combine an analysis of social, political and organisational factors with the potential of contemporary information and communication technology in order to improve problem situations.

Systems Acquisition and Implementation Management
Students will evaluate the pros and cons of differing approaches to acquiring systems, and demonstrate an ability to match particular approaches to particular organisational contexts. Students discuss the issues associated with vendor and package selection. Students are able to explain and manage the major issues and human concerns in IS-related organisational transformations.
ICT Project Management

The ICT profession is largely people centered rather than technology centered. You have to be able to communicate your expertise. Students will develop skills appropriate to professional computing employment, particularly written, verbal and interpersonal communication skills. Students will also experience the principles, techniques and tools of project management.

Requirements Analysis & Modelling

You will develop the ability to analyse and model the requirements and develop practical design solutions for an information system. You will also be able to argue effectively why some models or solutions are better than others given different evaluation criteria.

Elective Intermediate Units

Database Management Systems

The technical aspects of database management systems are investigated, including advanced SQL and PL/SQL querying.

Business Logistics

Students develop skills to model systems and processes for business applications, and learn the strategic role of information systems in business transformations.

Organisational Behaviour

Students are introduced to the management of human behaviour in organisational settings.

Computer Networks

The biggest growth area in computing is in networking. In order to make networks work you need to study how data can be transmitted and the various protocols that are used to achieve this. You will also gain practical experience in installing and administering a network.

Computer Security

The threats to computer systems are real. In this unit you will learn about the threats and the people that perpetrate attacks. You study the theoretical techniques that can be used to protect computer systems and networks before examining how some of these can be applied.

Advanced Dynamic Web Development

This unit is about the latest techniques used in web page development. Currently it focuses on the development of interactive sites.

Core Advanced Units

ICT Project A & B

Many students obtain their first job on the basis of the work that they have done on their project. Projects are undertaken as a team working together to produce a solution for a client generally from outside of the university.

Information Systems Management

You will develop a sound understanding of the business environment, business strategy and how to apply analytical tools and techniques to recommend IS strategies and solutions to business problems and opportunities. You will explore the issues and challenges of sourcing information systems and the issues involved in, and basic techniques for, evaluating and proactively managing the realisation of benefits from IS investments.

Enterprise Resource Planning

Students will be able to demonstrate understanding of transaction processing systems found in traditionally-structured organizations, and how these may be enhanced and enabled through appropriate application of Enterprise Resource Planning Systems.