Module specification

When printed this becomes an uncontrolled document. Please access the Module Directory for the most up to date version by clicking on the following link: Module directory

Refer to the module guidance notes for completion of each section of the specification.

Module code	COM396
Module title	Information Systems and Databases
Level	3
Credit value	20
Faculty	FAST
Module Leader	Julie Mayers
HECoS Code	100371
Cost Code	GACP

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc Computing (with Foundation Year)	Core
BSc Computer Science (with Foundation Year)	Core
BSc Cyber Security (with Foundation Year)	Core
BSc Networks and Security (with Foundation Year)	Core

Pre-requisites

No

Breakdown of module hours

Type of Module hours	Amount
Learning and teaching hours	20 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	20 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	40 hrs
Placement / work based learning	0 hrs
Guided independent study	160 hrs
Module duration (total hours)	200 hrs

For office use only	
Initial approval date	11/5/21
With effect from date	01/09/21

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Date and details of revision	
Version number	1

Module aims

This module will provide an introduction to DBMS (database management systems) and consider the underlying principles on how organisations use and design information systems. The students will look at the basic concepts, methods and terminology used during the design and development stages of information systems, including basic design principles, practical implementation and development skills.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Analyse the data structural requirements of a range of business information systems
2	Design, create and manage a simple database information system, comprising tables and fields
3	Enter, view, filter and sort data in tables and forms
4	Retrieve data selectively from tables using queries
5	Summarise, group and print data using reports

Assessment

Indicative Assessment Tasks:

The student will be given a variety of coursework in order to design and develop a database from a specified business problem, including the development of appropriate Entity Relationship models, and the implementation of a working database.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1-5	Coursework	100%

Derogations

None

Learning and Teaching Strategies

Using the Active Learning Framework, this module will be taught using a mixture of blended learning, including synchronous and asynchronous sessions which will incorporate lectures, practical learning, and self-study exercises.

The sessions will be used to introduce the various concepts and principles of the module's topics, and through synchronous and asynchronous learning the students will gain practical experience by applying information systems concepts on commercial DBMS(s). The students will use material that will encourage them to work independently at their own pace.

It is envisaged that practical components will allow students to explore in depth specific issues which arise in information systems development and maintenance. Online discussions will contribution to peer support, which will support individual learning.

For the self-study exercises and assessment, students are expected to spend time on unsupervised work in order to development and improve learning and knowledge.

Indicative Syllabus Outline

Introduction to Information Systems

- The nature of systems
- The nature of information
- Information systems and organisations

Types of Information Systems

- Transaction processing system
- Management information systems
- Executive information systems
- Intelligent information systems
- Decision support systems
- Expert systems

Business Application of Information Systems

- System Development process
- Traditional life cycle
- Systems development methodologies
- Information System Investigation
- Planning systems investigation
- Fact finding techniques

Databases

- Basic concepts of relational database systems
- Entity Relationship modelling
- Defining database and its objects: tables, queries, forms, reports.
- Designing and creating tables
- Entering and manipulating data in tables
- Queries
- Forms
- Reports
- Basic database maintenance tasks

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

None

Other indicative reading

Bocij, P., Greasley, A. and Hickie, S. (2019) Business Information Systems, Pearson (6th Ed)

Connolly, T and Begg, C. (2015) Database Systems: A Practical Approach to Design, Implementation, and Management, Pearson (6th Ed)

Shellman, M. and Zygiaris, S. (2018) *Database Management Systems*, Emerald Publishing Limited

Vodnik, S. (2017) New Perspectives Microsoft Office 365 and Access 2016, Pearson

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas. Click here to read more about the Glyndwr Graduate attributes

Guidance, from the following list, delete the attributes that are not covered by this module

Core Attributes
Engaged
Enterprising
Creative

Key Attitudes
Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets
Digital Fluency
Organisation
Critical Thinking
Emotional Intelligence
Communication