Liverpool John Moores University

Title:	EVOLUTION OF INFORMATION SYSTEMS IN BUSINESS
Status:	Definitive
Code:	**4034BUSIS** (108206)
Version Start Date:	01-08-2011

Owning School/Faculty:	Liverpool Business School
Teaching School/Faculty:	Liverpool Business School

Team	emplid	Leader
Jonathan Read		Y

Academic Level:	FHEQ4	**Credit Value:**	12.00	**Total Delivered Hours:**	25.00
Total Learning Hours:	120	**Private Study:**	95		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Workshop	24.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	100.0	1.00

Aims

To introduce the history of business information systems from the initial use of 'general purpose computers' through to development of service oriented architectures.
To introduce the breadth of analysis approaches used over time.
To introduce the concept of abstraction in business use of computers.

Learning Outcomes

After completing the module the student should be able to:

1   Understand the ways in which computer technology has been used in business.
2   Understand and be able to describe the phases of development of systems.
3   Understand the concept of Abstraction and it's basic application in different kind of system.
4   List the various tools used at different levels of abstraction and relate them to the type of system them apply to.
5   Understand that a large business will have artifacts of a number of era's in operation today.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM   1   2   3   4   5

Outline Syllabus

The history of Business use of information system will be explored examining the increasing levels of abstraction demonstrated over time.
Introduction of the Computer:
Understanding what a general purpose computer is introducing the key components, CPU, memory, disk and user interface. Abstraction includes the representation of numbers as floats, binary coded decimals, integers etc.
The Operating System:
History of operating systems, what they do and what their capabilities are. History of proprietary operating systems (VMS, VME etc.). Abstraction includes file system, high level programming languages. Abstraction includes the representation of different data types (for example the string).
The Algorithm:
Discussion of the use of algorithms to both encapsulate standard computing operations (sort, find) and to describe business problems such as taking a booking. Abstraction includes flow charts and structured English.
Batch Operations:
Introduction to batch processing, it's modeling techniques and approach to data gathering and production of results. Introduce dataflow diagrams to illustrate flow of batch operations and process diagrams.
Review of IT Artifacts:
Break down software systems to Systems Software (Operating Systems, Utility Programs, Development Programs) and Application Software (General purpose software, application specific software).
Database Systems:
History of databases includes, file access, hierarchical databases, network databases leading to relational databases and theory in the 1980's. Theory of the RDBMS abstraction of data into 'normalization theories' and Codd's database theories introduced.
Client Server Systems:
Development of client server architecture and systems building 'code behind' systems using new relational databases. And data level integration. Abstraction includes the code behind and 'Transaction Script' approach to development.

Computer to Computer Interactions:
EDI through to web services, building from definitions of data types (for invoices)
through to definitions of services offered through web services.
Object Oriented Development:
Abstraction of the domain model to represent both data and process. Abstraction,
the class and object.

Learning Activities

The module will be delivered via a series of lectures and workshops. Each 'era' of system development will be delivered in one or two lectures.
The workshop activities will be gaining familiarization with the type of abstraction and modeling used in the different points in system evolution.

References

Course Material	Book
Author	Lucey, T
Publishing Year	0
Title	Management Information Systems
Subtitle	
Edition	(various editions)
Publisher	
ISBN	

Course Material	Book
Author	Curtis, G and Cobham, D
Publishing Year	0
Title	Business Information Systems
Subtitle	
Edition	(various editions)
Publisher	
ISBN	

Notes

Course material will be placed on Blackboard