**BASIC COURSE OUTLINE MODEL**

**SCHOOL OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**Course Code**:ITEC102 **Credit Hour(s)**:**3** **Webpage: Any** relevant site

**Course Title**: **Introduction to Information System**

**Course Lecturer: Daniel Obuobi Room: G319-G320**

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**Office Hours:Mondays, Tuesdays and Thursdays**

# Course Objective

This course is designed to introduce students to Information Systems. The aim is to provide in-depth understanding of the concepts, principles and the practice of Information System and why they are integrated in the organisation.

# Course Description

This course is an introduction to information systems from a business perspective.

It provides in-depth understanding of the concepts, principles and the practice of information system. Topics to be discussed are information systems, System Theory& concept, systems development lifecycle, modelling techniques (rich picture, data flow modelling, object-oriented analysis etc), Organisation, Management & Information, Types of IS, Redesigning Organisation with IS, functions and levels of management and Object-oriented methodologies. Other topics are Management and decision making, managing knowledge, Decision Support Systems, developing business/ IT solution, IT outsourcing and IT user policies.

# Learning Outcomes

At the end of this course, students should be able to:

* Appreciate the system theory and concept and how they apply to Information System
* Describe the basic information system concept and terminology
* Identify the range and importance of information system application in modern organisation
* Distinguished between the various management levels in the organisation and systems
* Identify the System Development life cycle and explain their importance
* Translate business need into information flow and stores
* Use the various modelling techniques such as rich picture, DFD, Flowchart, decision tables etc during the system development
* Establish the organisation information requirements using the CSF and enterprise Analysis
* Identify the alternative approaches to system development and their usefulness
* Select appropriate techniques for information system design and provide useful documentation.
* Identify factors which are critical to the success or failure of the IS projects
* Appreciate the role of AI in decision making process in business

# Instructional Methods

Instructional approaches to be used during the course (e.g., lectures, presentations and assign readings). **Note that attendance is also a requirement.**

# Required Course Materials and Readings

Curris, G. & Cobham, D. (2005).*Business information systems: Analysis, design and practice* (5th ed.). London: Pearson.

Filipe, J. (2000). *Enterprise information systems*. Netherlands: Springer.

Laudon, K. C. &Laudon, J. P. (2007).*Essentials of management information systems* (8th ed.). Upper Saddle River, NJ: Pearson Eduacation.

Traunmuller, R. (2002). *Information systems: The E-business challenge*. Glasgow: Springer.

# Evaluation

Quizzes, Mid-Semester, Assignments etc 40%

End of Semester Exams 60%

Total 100%

# CommitTo Academic Integrity

Students in the department are expected to maintain **high degrees of professionalism,commitment to active learning, participation andacademic integrity every time**.

# Academic Dishonesty

Please note that students involved in academic dishonesty will receive a **ZERO**mark on the particular component in which the infraction occurred and a notation of academic dishonesty in the departmental office. This may also reflect on references written by the department.

**It is the student’s responsibility to understand what constitutes academic dishonesty.**

# Missed Exams / Tests / Assignments

**Assignment Submission**: Assignments must be received on the due date specified for the assignment.

**Lateness Penalty: Assignments received later than the due date will be penalized.** Exceptions to the lateness penalty for valid reasons such as illness, etc., may be entertained by the Lecturer but will require supporting documentation (e.g., a doctor’s letter).

**Missed Tests:** Students with a documented reason for missing a course test, such as illness, which is confirmed by supporting documentation (e.g., doctor’s letter),will be handled by the Lecturer.

**WEEK BY WEEK COURSE SCHEDULE / ORGANISER:**

| **Week** | **Topic** | **Activities** | **Activities - Student** |
| --- | --- | --- | --- |
| 1 | **Introduction**  Course Outline  Mode of delivery – lecture, assignments, quizzes, labs work, discussions, independent study, Q&As, interaction, problem solving  Activities, coverage  **Introduction to Information Sys**  What is Information System? What is Information Sys in Organisation?  Key activities and deliverables, wht IS matters, Data, Information and Knowledge, IT-IS-Organisation, Systems | Discussion of helpful Course Outline & Coverage  Lecturer Communicates subject matter, using various techniques as necessary | Week 1  Take Note of discussion on course outline.  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 2 | **System Concept**  Definition, features and examples; type of systems, purpose and objectives, the system approach, hard and soft properties | Lecturer  Deliver subject matter and engage students | Week 2  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 3 | **Diagram and Rich Picture**  Modeling techniques, System Architecture, why rich picture? What is it about? Key aspects / features, Drawing rich picture, diagramming work and processes in organization, Modeling, purpose of modeling, elements, processes and modeling techniques | Lecturer  Deliver subject matter and engage students | Week 3 – Quiz 1  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 4-5 | **Analysis through Modeling**  What are Models, overview, Using models, hierarchical modelling, Modeling physical processes -  rich picture & English narrative; Modeling messages - data flow modelling (Tom DeMarco, etc), flowchart, decision table);ER-diagrams, object-oriented analysisetc | Lecturer  Deliver subject matter and engage students | Week 4-5 – Ass1  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 6 | **Organisation, Management & Information**  Business perspective of IS, Info Sys more that Computers, Dimension of IS (org, mgt, tech), Information & Management, Classification of Information, Data vs Information, functions and value of information, Communication methods, channel and forms, understandability. | Lecturer  Deliver subject matter and engage students | Week 6  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture and **Functions and levels of Management** |
| 7 | **Types of Information System & their relationship**  Major Types of systems in organisation, functional areas, different kind of system, the four major types of systems and others, relationship between the major systems, IS application to business processes, overview of enterprise system. | Lecturer  Deliver subject matter and engage students | Week 7  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 8 | **Redesigning Organisation with Information System, OO methodologies**  Why build IS, establishing organization information requirements - CSFetc, structured organizational change enabled by IT – automation etc, System Development Process, Approaches to building IS, alternative approaches, IS project failure and successes | Lecturer  Deliver subject matter and engage students | Week 8 – Quiz 2  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 9 | **Object Oriented Development**  Overview, structured development vs object oriented development, Object – oriented development, classes and inheritance, Phases, Unified Modeling Language, | Lecturer  Deliver subject matter and engage students | Week 9  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 10 | **Management Decision Making**  What is management? Key concept and functions, What is organization? Models of management, system approach, behavioural approach, Management and key managerial role, fundamental management skills, today’s management, type of decisions, stages of decision making, organizational model for decision making. | Lecturer  Deliver subject matter and engage students | Week 10  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 11 | **Managing Knowledge**  Landscape, data-information-knowledge-wisdom, knowledge management, structured and semi-structured knowledge management system, knowledge repositories, knowledge work system, virtual reality system, Intelligent techniques, expert system, case-based reasoning, fuzzy logic and neural network | Lecturer  Deliver subject matter and engage students | Week 11- Quiz  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 12 | **Decision Support System**  E-business DSS applications, decision in e-business, MIS reports, Online Analytical processing, DSS, Enterprise Information portal and DSS, attributes of intelligent behavior and AI, AI applications, AI applications in business, Components of Expert systems, Expert system application. | Lecturer  Deliver subject matter and engage students | Week 12  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
| 13 | **Developing Business/ IT solutions, IT Outsourcing**  System investigation phase – feasibility study etc, System Analysis phase, System design phase, End-user development.  The challenges, IT outsourcing 5 R principles, the improvement loop etc | Lecturer  Deliver subject matter and engage students | Week 13  Listen, contribute & prepare a good summary of the lecture.  Independent study:  Read the next slide for the next lecture. |
|  |  | Revision Week | 22 Apr.,– 27 Apr., 2018 |
|  |  | Exams begin | 29 Apr.,- 11 May 2018 |
|  |  | Exams end / vacation | 13 May.,- 17 May 2018  Re-sit Exams iff |

**Delivery of Subject Matter / Content**

Precise information will be given on the subject matter; examples will be given where necessary, students’ prior knowledge, draw on your experience facilitates problem solving and critical thinking.

**Methodology**

Used of varied pedagogical methods / skills and students activities where necessary. Interacts with students, Use students ideas, encourage cooperative learning. Maintain attention during lecture (NO whatsup). Use power point presentation to organize teaching and learning activities sequentially, logically promote learning environment and critical thinking.

**Questioning and Feedback**

Mixture of factual, probing, higher order and divergent questions, distribute in the class to facilitates independent and cooperative learning; stimulates critical thinking in you (students)

**Teaching and learning Resources (TLRs)**

Appropriate TLRs will be used and linked to previous learning & learning objectives

**Communication / use of language**

Pay attention to the language you use in class. Use the right technical term / vocabulary. You will be engaged in the class to facilitates problem solving, cooperative learning and peer-tutoring

**Assessment** – will be marked and duly discuss before end of semester in all cases.