

# *University College of the Cayman Islands*

## **ASSOCIATE DEGREE SYLLABUS**

**COURSE NAME: SYSTEMS ANALYSIS AND DESIGN**

**COURSE #: COM 261**

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### **COURSE DESCRIPTION**

The purpose of this course is to provide a basic understanding of systems theory, information systems, general systems solutions and systems analysis in relation to business information requirements. It provides the students with the tools and techniques to develop information systems.

**Credits: 3**

**Prerequisite: CO 100**

### **COURSE OBJECTIVES**

This course is intended to enable the student to:

1. Obtain an understanding of business information systems.
2. Appreciate general systems solutions and the discipline of systems analysis in the context to the information systems life cycle.
3. Apply tools, techniques and concepts of structured analysis.
4. Gather, analyze and report information effectively.
5. Critically examine the information systems requirements for a business organization.
6. Structured design techniques to build efficient and reliable computer-based information systems.

### **COURSE OUTLINE**

#### **I Business Information Systems**

Importance of information to an organization  
Systems control – control information, systems theory  
Information technology and management of change  
Economics of information  
Strategic role of information systems  
Organizational impact of information systems

#### **II Systems Planning**

Information systems resource planning  
Project management  
Structured techniques for business planning

### **III Systems Analysis**

Scope of systems analysis  
Techniques for gathering data  
-relevant research, sampling, interviewing  
-questionnaires and observation  
Analyzing survey findings  
-data flow diagrams, entity-relationship diagrams  
-structure charts  
Defining physical and logical systems requirements  
Documenting the systems requirements

### **IV Structured Systems Design**

Evaluation of design alternatives  
Design specifications for hardware, software  
Design specifications for inputs, outputs, user interface and processes

### **V Systems Justification and Selection**

Technical, economical and operational feasibility of an information system  
Select hardware and software  
Information systems proposal

### **VI Systems Implementation**

Systems testing  
Systems conversion  
Training, operation and production  
Systems documentation and maintenance

## **ASSESSMENT**

Course Assignments	-	5%
Major Project	-	20%
Mid-Semester Examination	-	15%
Final Examination	-	60%
<b>Total</b>		<b>100%</b>

## **REQUIRED TEXT**

The following textbook(s) will be used for this course:

1. **Dewitz, Sandra Donaldson**, *Systems Analysis and Design and Transition to Objects*, McGraw-Hill

## **References**

**Kendall and Kendall**, *Structured Systems Analysis and Design*, Prentice Hall Inc.

Jul-08