Module Title: Systems Analysis and Design
Module Code: CMM2323
Module Value: 1.0
Duration: 30 weeks
Class-Contact Hours: Lecture 30 hours.
Laboratory/Tutorial 30 hours.
Assessment Scheme: Continuous Assessment 30%
Examination 70%

Module Rationale/Aims:
- to further develop and enhance the concepts of systems analysis and design;
- to provide students with in-depth knowledge of systems development;
- to understand the common techniques used in systems analysis and design;
- to provide practical approach to systems development through the use of development tool in the laboratory.

Learning Objectives:
Students will be able to:
- demonstrate the concepts and skills related to systems development;
- apply the common techniques used in systems analysis and design;
- solve practical problems related to systems development.

Syllabus Keywords:
System, Documentation, Specification, Data Flow Diagram, Data analysis, File, Data Structure, Data dictionary, Structured English, Decision tables, Input, Output, Control, Security, Systems development life cycle, Analysis, Design, Implementation, , Investigation, Requirements,Walkthrough, CASE tool.

Recommended Textbooks/References:
Shelly, Cashman and Rosenblatt, Systems Analysis and Design, 3rdedition, International ThompsonPublishing, 1998. Senn, J., Analysis and Design of Information Systems, McGraw Hill, 1989. Yourdon, E., Modern Structured Analysis, Prentice Hall, 1989. Kendall, K E. , Kendall, J E., Systems Analysis and Design, 4thedition, Prentice Hall, 1998. Edwards, P., Systems Analysis and Design, McGraw-Hill International, 1993.
Whitten and Bentley, Systems Analysis and Design, 4thedition, McGraw-Hill International, 1998. Hoffer, George and Valacich, Modern Systems Analysis and Design, 2ndedition, Addison-Wesley, 1998Chai Wan Computing Course Board Page 2 – 40

Content Lecture Tut/Lab

1 Systems development Process

a Phases of Systems development

b Feasibility Study

c Investigation Techniques

2 Systems Modelling

a Process modelling: Data Flow Diagrams, Decomposition, Balancing, Levelling, Structure Charts, Decision Tables, Decision Trees, Data Dictionary

b Conceptual Data Modelling

c Prototyping

d Using CASE tools

3 Logical Design

a Design Forms and Reports

b Design Interfaces and Dialogues

c Design Files and Databases

4 Physical Design

a Physical files and Databases

b Process and procedure design

5 Evaluation and Validation of Design

a Structured walkthroughs

b Evaluation criteria