

**BOROUGH OF MANHATTAN COMMUNITY COLLEGE**

City University of New York

**Department of Computer Information Systems**

Office S150/Phone: 212-220-1476

**Title of Course: Systems Analysis**

**CIS 325**

**Spring 2008**

**Credits: 3**

**Class hours: 2**

**Lab hours: 2**

**Course Description:**

This course teaches the student how to analyze systems of programs and how to document these analyses. The student will learn CASE [Computer Assisted Systems Engineering] tools that are currently used in the field of systems analysis.

Students are required to complete a semester project to analyze a complex computer system. This project will require the use of CASE tools to document the input and output requirements, data dictionaries, database design and normalization, ERD [Entity Relationship Diagrams], DFD [Data Flow Diagrams], systems flowcharts, run charts, and PERT [Program Evaluation Review Technique] charts.

**Prerequisites/Co-requisites:** CSC 210 Programming II

**Student Learning Outcomes:**

After completing this course, students will be able to:

- Demonstrate knowledge of the System Development Life Cycle [SDLC]
- Write the systems requirements and objectives
- Design databases structures and Normalize databases [1NF, 2NF, 3NF]
- Perform data modeling using Data Flow Diagrams [DFD's]
- Perform data modeling with Entity Relationship Diagrams [ERD's]
- Design input forms and screens
- Design output reports and screens
- Use techniques for Graphical User Interface (GUI) design
- Perform interviews for systems analysis
- Manage and Coordinate projects using Gantt and PERT charts
- Create Object Relationship Diagrams using Unified Modeling Language (UML) including:
  - use cases and activity diagrams.

**Required Text & Readings:**

Textbook: **System Analysis and Design, 7<sup>th</sup> Edition**

Author: **Shelly, Cashman & Rosenblatt**

Publisher: **Course Technology**

ISBN: **1-4239-1222-5**

**Other Resources:** [bundled with text] **Visible Analyst Software V7.6 CD.** 6 HD diskettes; Flash drives are recommended.

**Use of Technology (if applicable):**

### Evaluation & Requirements of Students:

1. Exam #1 Concepts & Terms	15%
2. Exam #2 Data Flow Diagrams [DFD's]	20%
3. Exam #3 DB Design & ERD's	20%
4. Exam #4 PERT / Gantt Charts	10%
5. Term Project	15%
6. Final Exam	<u>20%</u>
	100%

### Outline of Topics:

1. Introduction to Systems Analysis & Design	Ch 1	
2. Preliminary Investigation	Ch 2	
3. Communication Tools	TK 1	
4. Requirement modeling	Ch 3	Exam #1
5. Data & Process Modeling [DFD's]	Ch 4	
6. Object Modeling	Ch 5	Exam #2
7. User Interface, Input & Output design	Ch 7	
8. DB Design & Normalization	Ch 8	
9. Entity Relationship Diagrams	Ch 8	Exam #3
10. PERT / Gantt Charts	TK 3	Exam #4
11. Presentation of Course Project		
12. Review		Final Exam

### College Attendance Policy:

At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For example, you may be enrolled in a three-hour class. In that class, you would be allowed 4 hours of absence (not 4 days). In the case of excessive absences, the instructor has the option to lower the grade or assign an F or WU grade.

### Academic Adjustments for Students with Disabilities:

Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities. BMCC is committed to providing equal access to all programs and curricula to all students.

### BMCC Policy on Plagiarism and Academic Integrity Statement:

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's web side, [www.bmcc.cuny.edu](http://www.bmcc.cuny.edu). For further information on integrity and behavior, please consult the college bulletin (also available online).