

MONTGOMERY COLLEGE
Rockville Campus
Engineering, Physical and Computer Sciences Department
CMSC243 Systems Analysis and Design

Instructor Information

Name:
 Mailbox:
 Email:
 Office Hours:

Office Location:
 Office Phone:

Course Information

Semester:
 Class starts:
 Class Meetings:
 Midterm Exam:

Course CRN:
 Class ends:
 Classroom:
 Final Exam:

Check MyMC class schedule for your Specific Deadline to Drop without a grade W or to change from audit to credit or from credit to audit

Check MyMC class schedule for your Specific Refund Deadlines

Course Description

Exploration of the nature of systems work including studies, analysis, design, implementation, and evaluation. Introduction to the tools used in and techniques applied to systems development. A practical approach is emphasized and a systems study is expected of each student.

PREREQUISITE(S): CMSC 110 *or consent of department. Three hours each week. Formerly CS 136.*
3 semester hours

Course Outcomes

#	Upon completion of the course, the student will be able to:
1.	Define the phases and tasks of the system development life cycle (SDLC)
2.	Describe the responsibilities of a systems analyst in the system development life cycle
3.	Differentiate among the traditional, structured, and object oriented analysis/design methodologies
4.	Apply systems analysis and design techniques in system development life cycle
5.	Analyze task dependencies and durations using scheduling tools, including Gantt charts and PERT/CPM charts
6.	Document business requirements using team-oriented information gathering methods and techniques, such as JAD (Joint Application Development) and RAD (Rapid Application Development)
7.	Perform requirements modeling to assess business requirements and information needs using FDD (Functional Decomposition Diagram), UML (Unified Modeling Language), Use Case diagrams, and Sequence diagrams.
8.	Design systems utilizing techniques, including process modeling, data modeling, object modeling, data design, and user interface design
9.	Develop the system process model and data model using modeling tools and diagrams including data flow diagrams, entity-relationship diagrams, object/class diagrams, use case diagrams, sequence diagrams, state transition diagrams, and activity diagrams

Course Materials

Textbook: Systems Analysis and Design, 11th Edition
By Scott Tilley, Harry J. Rosenblatt
Course Technology, CENGAGE Learning (<http://www.cengage.com>)

Textbook and other materials may be purchased through the bookstore

Grade Basis

Final Project	25%
Quizzes on Reading Assignments	10%
Assignments	50%
Online Discussions	15%
Total:	100%

Grading Scale:

90 - 100%	A
80 - 89%	B
70 - 79%	C
60 - 69%	D
Below 60%	F

General Class Policies

- ❖ You are responsible for all work missed, and for meeting assignment due dates when absent. Please call or email your instructor if you are going to be late or absent.
- ❖ You are strongly encouraged to contact your instructor at home by phone or e-mail if you are having difficulties, or have any questions about assignments.
- ❖ Please include your name and the course information in the submitted assignments.
- ❖ There is always a means to submit your assignments on time. Be creative, be persistent, and keep your instructor informed!
- ❖ All assignments (Quizzes, Assignments, Projects, and Discussions) must be turned in on or before the due dates to receive full credits.
- ❖ Missed Tests, Quizzes, Assignments, and Discussions: NO MAKEUPS without a doctor's excuse. If the Final Project is not submitted, the student will receive a grade of F for the course.

Course Topics

Topics
Chapter 1 Introduction to Systems Analysis and Design
Chapter 2 Analyzing the Business Case
Chapter 3 Managing Systems Projects
Chapter 4 Requirements Modeling Chapter 5 Data and Process Modeling
Chapter 6 Object Modeling
Chapter 7 Development Strategies
Chapter 8 User Interface Design Chapter 9 Data Design
Chapter 10 System Architecture
Chapter 11 Managing Systems Implementation
Chapter 12 Managing Systems Support and Security