



## SYSTEMS ANALYSIS AND DESIGN

COSC-2810  
3 Credits  
26/08/2013 to 20/12/2013

Section 01  
FA 2013  
Modified 19/07/2013

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### MEETING TIMES

#### Lecture

Monday, Wednesday, Friday, 11:00 to 11:50

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### CONTACT INFORMATION

#### John Aleshunas

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### DESCRIPTION

Covers the basic concepts involved in systems analysis, including effective communication, analysis tools, and phases of the systems development life cycle.

#### Requisites

None

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### OBJECTIVES

Having a working knowledge of computer concepts and terminology is required. It is helpful that the student have knowledge of at least one current programming language and has written, tested, debugged, and modified at least one program.

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### OUTCOMES

At the completion of this course this student will be able to:

1. Identify various technologies used in the information systems area.
2. Identify phases of system development life cycle.
3. Identify components of a business information system
4. Name and define different types of information systems
5. Identify the importance of documenting, modeling, and prototyping in a classical system development life cycle
6. Identify the components of an Entity Relationship Diagram and Data Flow Diagram.
7. Recognize errors in a ERD and DFD
8. Define the problem solving process conducted in a system development life cycle
9. Identify activities in a information system project system development life cycle

10. Identify tools and techniques used in a classical systems development life cycle.
11. Develop simple documentation for the basic activities conducted in a systems development life cycle.

## REQUIRED TEXTBOOK

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### Systems Analysis & Design

Author: Kendall and Kendall  
Publisher: Prentice Hall  
Edition: 9th  
ISBN: 978-0-13-302344-2

## MATERIALS

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### Additional Supporting Content

The instructor will provide additional materials to augment the course texts with current published research.

## DELIVERABLES

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**The course assessment deliverables will consist of:**

- Three exams
- Two analysis mini-projects
- Weekly assignments

## EVALUATION

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### Criteria

**The UNDERGRADUATE catalog provides these guidelines and grading options:**

- **A, A-** superior work in the opinion of the instructor
- **B+, B, B-** good work in the opinion of the instructor
- **C+, C, C-** satisfactory work in the opinion of the instructor
- **D+, D** passing, but less than satisfactory work in the opinion of the instructor
- **I** incomplete work in the opinion of the instructor
- **ZF** An incomplete which was not completed within one year of the end of the course
- **F** unsatisfactory work in the opinion of the instructor; no credit is granted
- **W** withdrawn from the course
- **IP** course in progress
- **NR** not reported for the course
- **Z** a temporary designation given by the registrar indicating that the final grade has not been submitted by the instructor. When the final grade is filed in the Office of the Registrar, that grade will replace the Z.

### Breakdown

Your grade will be compiled from each of the class evaluation components in the following proportions:

Exams	45%
Homework	15%
Mini- Projects	30%
<u>Class Participation</u>	10%
Total	100%

The course grading requirements are:

93 to 100%	A
90 to 92%	A-
87 to 89%	B+
83 to 86%	B
80 to 82%	B-
77 to 79%	C+
73 to 76%	C
70 to 72%	C-
60 to 69%	D
Below 60%	F

## COURSE POLICIES

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### Attendance

Attendance will be taken at each class meeting. Attendance is required. Please notify me in advance of schedule problems. You will be responsible for all material covered in class as well as in the textbook. If you are absent, you should make arrangements with another student for class notes and with me for any class handouts.

**Excessive absences will reduce a student's grade for the course.**

### Assignments

Assignments are due at the beginning of class. Reading assignments should be completed **before** class on the related topic to enable you to bring questions to class and gain more from the class discussions.

### Accommodations

If you have a disability that may have some impact on your work in this class and for which you may require accommodations, please contact me or the [Director of the Academic Resource Center](#), so that such accommodations may be arranged.

## INSTITUTIONAL POLICIES

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University policies are provided in the current course catalog and course schedules. They are also available on the university website. This class is governed by the university's published policies. The following policies are of particular interest:

### **Academic Honesty**

The university is committed to high standards of academic honesty. Students will be held responsible for violations of these standards. Please refer to the university's academic honesty policies for a definition of academic dishonesty and potential disciplinary actions associated with it.

### **Drops and Withdrawals**

Please be aware that, should you choose to drop or withdraw from this course, the date on which you notify the university of your decision will determine the amount of tuition refund you receive. Please refer to the Add/Drop/Withdraw section of the academic catalog for further information and to find the deadlines for dropping a course with a full refund and for withdrawing from a course with a partial refund.

### **Special Services**

If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this class so that these can be provided.

### **Disturbances**

Since every student is entitled to full participation in class without interruption, disruption of class by inconsiderate behavior is not acceptable. Students are expected to treat the instructor and other students with dignity and respect, especially in cases where a diversity of opinion arises. Students who engage in disruptive behavior are subject to disciplinary action, including removal from the course.

### **Grading**

Please refer to the most recent academic catalog for information on the Webster University grading policy.

### **Student Assignments Retained**

From time to time, student assignments or projects will be retained by The Department for the purpose of academic assessment. In every case, should the assignment or project be shared outside the academic Department, the student's name and all identifying information about that student will be redacted from the assignment or project.

### **Contact Hours for this Course**

It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length. If a class session is cancelled for any reason, the content must be covered at another time.

## **SCHEDULE**

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**When**

**Topic**

**Notes**

<b>When</b>	<b>Topic</b>	<b>Notes</b>
Week 1	Introduction to Systems Analysis and Design	
Week 2	Understanding and Modeling Organizational Systems	
Week 3	Structured Modeling: Data Flow Diagrams	
Week 4	Structured Modeling: Process Specifications	Tasks: Start mini-project #1
Week 5	Exam #1	Supplement: Structured Modeling Exercise
Week 6	Information Gathering Techniques	Tasks: First draft submission of mini-project #1
Week 7	Project Management	Tasks: Revision of mini-project #1
Week 8	Agile Modeling and Prototyping	
Week 9	Designing and Using Databases	Tasks: Final submission of mini-project #1
Week 10	Object-Oriented Systems Analysis and Design Using UML	Tasks: Start mini-project #2
Week 11	Exam #2	Supplement: Systems and Development Tools
Week 12	Designing Effective Input and Output	Tasks: First draft submission of mini-project #2
Week 13	Human-Computer Interaction	Tasks: Revision of mini-project #2
Week 14	Quality Assurance and Implementation	
Week 15	Future Directions in Systems Analysis and Design	Tasks: Final submission of mini-project #2
Week 16	Exam #3	