Information Systems Department
University of Maryland Baltimore County
Baltimore Maryland 21250

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IS 310 section 1 Software and Hardware Concepts
Spring 2017

Instructor: Tate O. Redding
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Course Delivery Site http://blackboard.umbc.edu
Office Hours: ITE 414, see posted schedule on corkboard for appointments

Meeting Times: Section 1 M/W 8:30-9:45 am Jan.30-May 15. Room: per schedule of classes.

Textbook: Systems Architecture, Hardware and Software in Business Information Systems, Seventh Edition By Stephen D. Burd, *Cengage,* 2016

Course Description: *(per catalog)* "A survey of technical topics related to computer systems with emphasis on the relationships between hardware architecture, systems software, and applications software. The architecture of processors and storage systems are explored and the implications for systems software design on the development of application programs in a business environment." 3 credits.

IS310 is part of the IS BS gateway and as such is a prerequisite for courses in Networking, Systems Analysis & Design, Decision Support, and Databases.

Prerequisites: Before attempting this course, students should have completed with grades of "C" or better; Math 155 and IS 147. IS 101 is also recommended.

Instructional Methods: Discussion, Lectures and Demonstrations

Attendance and Participation:

Regular and punctual attendance is expected of all students. In the case of absence due to emergency (illness, death in the family, accident), religious holiday, or participation in official College functions, it is the student's responsibility to confer with the instructor about the absence and missed course work.

Class Preparation: All of the reading assignments should be completed before the class in which the material is to be discussed.

Course Requirements:

Regular Punctual Attendance	Reports
Class Assignments & Homework	Exams

Grading

Grade Apportionment:	Reports	= 10%
	Classwork/Homework	= 10%
	Exams	= 80%

There will be no extra credit assignments available.

Reports: Communication is a vital part of business, school and personal life. This semester you will be required to write 2 reports.

An event report will be from your participation in an Information Systems related seminar, workshop, lecture, or research project outside of class. The report from your participation should chronicle the event, its relevance to the major and your reactions to it. Proof of attendance may be required. This will constitute 5% of your semester grade.

A research report will be based upon readings from a **current** periodical. The periodical used must be an **academic journal and it must have one of the UMBC IS professors as the main author.** (See IS Home page for links.) The topic for the report needs to relate to the course. The academic journal report should be 4-6 pages in length (including a title page.) Source material should be copied and attached to your report or there should be links to online sources provided if the report is submitted as a pdf file. You also need to cite your source as a footnote or endnote within the report. You must include some aspect of WordArt and or graphics on your title page. You also need to have each page numbered and vary text styles within the report body by using different type sizes as well as bold, underlined and italicized characters. I am interested in seeing what you think is important and exciting about computers. Opinion is welcome. Grading for the report will be 5% of your semester grade.

Classwork and Homework: Throughout the semester you will be given classwork and homework assignments which will count for 10% of your overall grade. Most of your homework will require you to present your answers in class as part of the topics under discussion.

Exams: There will be 4 Exams. The exams will result in a total of 80% of your semester grade. Each exam is 20 points. You may not use calculators or computers for exams. You must bring picture ID. Exams may include any type of question or exercise covering any aspect of the course currently under discussion or assignment. There is no cumulative Final.

Academic Integrity: By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabricating, plagiarism, and helping others to commit these acts are all forms of academic dishonesty and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. Full policies on academic integrity should be available in the UMBC Student Handbook, Faculty Handbook, or the UMBC Directory.

Due Dates: All assignments are to be handed in by the due date. If an assignment is not in on time it may possibly be accepted the following class with an accompanying reduction of 50% of the earned grade. Due to some scheduling issues some late assignments may not be accepted at all with a result in a total loss of points.

Make-up Policy: Exams: No make-up exams except through arrangement with the instructor: and then for reasons deemed valid enough to warrant the making of a new, and potentially harder, test.

Grading Standards: IS instructors are expected to have exams and evaluations, which result in a reasonable distribution of grades. With respect to final letter grades, the University's Undergraduate Catalogue states that, "A, indicates superior achievement; B, good performance; C, adequate performance; D, minimal performance; F, failure" There is specifically no mention of any numerical scores associated with these letter grades. Final letter grades in this course conform to the University's officially published definitions of the respective letter grades. In accordance with the published University grading policy, it is important to understand that final letter grades reflect academic achievement and not effort. While mistakes in the arithmetic computation of grades and grade recording errors will always be corrected, it is important to understand that in all other situations final letter grades are not negotiable and challenges to final letter grades are not entertained. Historical data suggest an "A" may be in the 90-100 range, "B"'s may be from 80-89 and "C" grades range from 70-79. All points from assignments and exams are additive for the semester. Each student starts at zero points which is an "F", any other grade must be earned. ***There will be no extra credit assignments available***.

Disability Statement: UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. Student Support Services (SSS) is the UMBC department designated to:

- receive and maintain **confidential** files of disability-related documentation,
- certify eligibility for services,
- determine reasonable accommodations,
- develop with each student plans for the provision of such accommodations, and
- serve as a liaison between faculty members and students regarding disability-related issues.

If you have a disability and want to request accommodations, contact SSS in the **Math/Psych Building, Room 213** or **Academic IV-B wing Room 345** (or call 410-455-2459 or 410-455-3250). SSS will require you to provide appropriate documentation of disability and complete a Request for Services form available at http://my.umbc.edu/groups/sss. If you require accommodations for this class, make an appointment to meet with me to discuss your SSS-approved accommodations.

COURSE SCHEDULE

Lecture Dates (approximate and subject to change)	Material Covered	Work Due
Unit I	***Introductions***	
Week 1- Jan 30	Intro to Course and Syllabus	Assignment 1
Feb 1	Chapter 1 – Why IS310	Assignment 2
Week 2- Feb 6	Chapter 2 – Introduction to Systems Architecture	Assignment 3
Feb 8/13	Chapter 3- Data representation	Assignment 4
	Exam 1 - bring picture ID	
Unit 2	***Processor Design***	
	Boolean Logic and Circuit Design	Assignment 5
	Chapter 4 Processor Technology	
	Exam 2	
Mar 20/22	***Spring Break – no classes***	
Unit 3	***Storage and Transport***	
Week 8	Chapter 5 – Data Storage	Assignment 6
Week 9	*Chapter 6 – Systems Integration*	
Week 10	Chapter 7 – I/O	Assignment 7
Week 10	Chapter 8- Data Communications	April 5 Research Report
Week 11	Chapter 9 - Networks	Assignment 8
Week 12	**Exam 3**	
Unit 4	***Software and System Management***	
Week 13	Chapter 10-Application development	Assignment 9
Week 13	Chapter 11 – Operating Systems	Event Report May 1
Week 14	Chapter 12 –Secondary Storage and File Management	Assignment 10
Week 15	Chapter 13 – Internet and Distributed Architecture	
Week 15	Chapter 14 – System Administration	
Week 16 May 15	**Exam 4**	
	FINAL EXAM Period used at instructor's discretion	

Inclement Weather: Any work or test due on a class date that has been canceled due to inclement weather will be due the next class meeting. (If the semester's last exam is postponed, it will be given during the time period assigned during the University's official Final Exam week.)