UNIVERSITY OF LOUISVILLE

COLLEGE OF BUSINESS

INFRASTRUCTURE TECHNOLOGIES CIS 350-01-4178 Fall 2017

I. Professor / Instructor	
Instructor	Dr. J. Zurada
Contact information	Office: 306 College of Business Telephone: 502-852-4681 Fax: 502-852-4799 Email: jozef.zurada@louisville.edu
Office hours	Tuesdays and Thursdays 10:00a.m. to 10:55a.m.; 2:30p.m. to 3:30p.m.; and by appointment

II. Course Information	
Class time / Room	Section 01 - Tuesdays and Thursdays 11:00a.m.-12:15p.m. Room 008, College of Business
Required text	• *The Architecture of Computer Hardware, Systems Software & Networking: An Information Technology Approach*, I. Englander, Wiley, 5th ed., 2014, ISBN: 978-1-118-32263-5. or • *The Architecture of Computer Hardware, Systems Software & Networking: An Information Technology Approach*, I. Englander, Wiley, 5th ed., December 2013, ISBN: 978-1-118-80312-7. (E-text) http://www.wiley.com/WileyCDA/WileyTitle/productCd-EHEP002899.html#purchase • Other materials will be posted on Blackboard.
Reference text	• *Systems Architecture*, S. D. Burd, Cengage Learning, 2016, 7the ed., ISBN-13: 978-1-305-38953-3.
Course description	This course provides an introduction to IT infrastructure issues and covers topics related to computer and systems architecture and communication networks, with an overall focus on the services and capabilities that IT infrastructure solutions enable in an organizational context. It gives students the knowledge and skills that they need for communicating effectively with professionals whose special focus is on hardware and systems software technology and

	for designing processes and solutions that require in-depth understanding of the IT infrastructure capabilities and limitations. It also prepares students for interaction with external vendors of IT infrastructure components and solutions.
Prerequisites	CIS 199
Learning objectives	• To provide the fundamental concepts relating data representation and data formats; computer hardware, architecture, and networks; operating systems; and data communications. • To provide some experience with different operating systems such as UNIX/Linux. • To introduce students to systems concepts as well as client/server and web-based computing and applications.
Teaching / Learning pedagogy	• Topics noted in the "Tentative Course Outline" section of the syllabus will be covered through a combination of lectures, homeworks, in-class activities, and labs. To earn credit for in-class activities you need to be present in class on the day when they are held and actually work the assigned problems with your group. In-class activities cannot be made-up. The lowest grade for in-class activities will be dropped. For example, if you miss one in-class activity and get a 0, it will not be included in the final grade determination. Due dates for homeworks, labs, and other assignments will be posted on Blackboard. The instructor reserves the rights to grade only selected randomly homework problems, say, 1 or 2 problems out of 5 or more assigned. • In class I will follow the lecture notes in Word/pdf posted on Blackboard, write on board, and/or use PowerPoint (PP) presentations. Though the instructor will provide you with summary notes of the text for most of the chapters, you should also take your own notes in class and read the textbook. Some empirical studies have shown that handwriting your notes is generally believed to be more effective than using word-processing software or just watching PP presentations for the understanding and retention of the material. • The vast majority of the class materials including the course syllabus and schedule, PP presentations of lectures, lecture notes, labs, homeworks, in-class activities, and the solutions will be posted on

	Blackboard at https://blackboard.louisville.edu/webapps/login. No hard copies of these materials will be given to the students. You need to come to class prepared, i.e., print and read the course materials before we cover them in class.
Final drop date	See: http://louisville.edu/calendars/academic/undergrad-grad
Expectations of outside time required for class	To be successful you should allow at least 7.5 hours for reading, homeworks and labs, research and study time each week.

III. Evaluation			
Grading scale	A+ = 97 to 100% B+ = 87 to 89.99% C+ = 77 to 79.99% D+ = 67 to 69.99% Below 60% = F	A = 92 to 96.99% B = 82 to 86.99% C = 72 to 76.99% D = 62 to 66.99%	A- = 90 to 91.99% B- = 80 to 81.99% C- = 70 to 71.99% D- = 60 to 61.99%

Grading scheme	Grading component	Weighted grading percentage
	4 Tests	65%*****
	Assignments: (Labs, Homeworks, and In-class Activities)	35%
	Total	100%

***You must get at least 60% total average (a D- grade) on the 4 tests to pass the course.**

IV. Schedule			
Week	**Date**	**Topic**	**Readings**
1	Tue: 8/22	Syllabus and Course Schedule, Course Administration, The Course Topics and Instructor's Profile Computers and Systems	Read the materials posted on Blackboard in the Course Information folder, and pp. 2-3. Chapter 1 (Sections 1.0-1.6), pp. 4-37.
	Thu: 8/24	An Introduction to Systems Concepts and Systems Architecture Number Systems	Chapter 2 (Sections 2.0-2.2), pp. 38-69. The lecture will be based on LN only. Do not need to read Chapter 3 (pp. 70-99).

2	Tue: 8/29	Number Systems	The lecture will be based on LN only. Do not need to read Chapter 3 (pp. 70-99).
	Thu: 8/31	Representing Numerical Data	The lecture will be based on LN only. Do not need to read Chapter 5 (pp. 136-175).
3	Tue: 9/5	Data Formats	Chapter 4 (Sections 4.0-4.7), pp. 100-135.
	Thu: 9/7	The Little Man Computer	Chapter 6 (Sections 6.0-6.6), pp. 176-193.
4	Tue: 9/12	The Little Man Computer	Chapter 6 (Sections 6.0-6.6), pp. 176-193.
	Thu: 9/14	The CPU and Memory	Chapter 7 (Sections 7.0-7.6), pp. 194-224. Sections 7.7-7.8 on pp. 224-233 will be covered very superficially.
5	Tue: 9/19	The CPU and Memory	Chapter 7 (Sections 7.0-7.6), pp. 194-224. Sections 7.7-7.8 on pp. 224-233 will be covered very superficially.
	Thu: 9/21	**Test 1**: Chapters 1-6, and LN (to the extent it was covered in class), in-class activities, and homeworks. Also, any materials assigned for reading. Work Sample Test 1 posted on BB.	
6	Tue: 9/26	CPU and Memory: Design, Enhancements and Implementation	Chapter 8 (Sections 8.0-8.6), pp. 234-265.
	Thu: 9/28	Input/Output	Chapter 9 (Sections 9.0-9.5), pp. 266-293.
7	Tue: 10/3	Computer Peripherals	Chapter 10 (Sections 10.0-10.9), pp. 294-331.

		Modern Computer Systems – Read on your own	Chapter 11
	Thu: 10/5	Operating Systems: An Overview	Chapter 15 (Sections 15.0-15.5), pp. 474-509.
8	Tue: 10/10	Fall Break – No class	
	Thu: 10/12	The User View of Operating Systems Windows Command Prompt	Chapter 16 (Sections 16.0-16.6), pp. 510-543. Labs 1 & 2
9	Tue: 10/17	**Test 2** – Chapters 7-11 and LN (to the extent it was covered in class and/or assigned for reading), in-class activities, and homeworks. Work Sample Test 2 posted on BB.	
	Thu: 10/19	Unix/Linux	LN
10	Tue: 10/24	Unix/Linux Command Prompt	Labs 3, 4, and 5
	Thu: 10/26	File Management The Internal Operating System	Chapter 17 (Sections 17.0-17.10), pp. 544-585. Chapter 18 (Sections 18.0-18.11), pp. 586-657.
11	Tue: 10/31	The Internal Operating System	Chapter 18 (Sections 18.0-18.11), pp. 586-657.
	Thu: 11/2	Networks and Data Communications	Chapter 12 (Sections 12.0-12.5), pp. 358-399.
12	Tue: 11/7	Networks and Data Communications	Chapter 12 (Sections 12.0-12.5), pp. 358-399.
	Thu: 11/9	**Test 3** – Chapters 15-18 and LN (to the extent it was covered in class and/or assigned for reading), in-class activities, and labs. Work Sample Test 3 posted on BB.	
13	Tue: 11/14	Ethernet and TCP/IP Networking	Chapter 13 (Sections 13.0-

			13.10), pp. 400-441.
	Thu: 11/16	Ethernet and TCP/IP Networking	Chapter 13 (Sections 13.0-13.10), pp. 400-441.
14	Tue: 11/21	Communication Channel Technology	Chapter 14 (Sections 14.0-14.4), pp. 442-473.
	Thu: 11/23	Thanksgiving – No class	
15	Tue: 11/28	**IT Tour** - The tour of UofL Computing Hardware and Software Facilities: Miller Technology Hall, Belknap Campus. **Attendance is mandatory**. **Be on time**. **The date of event may change.** We meet in the classroom at 11a.m. and leave for the tour at 11:05a.m. The tour starts at 11:15a.m. and ends approximately at 12:15p.m.	Also, see the Course Documents folder on BB for the exact date and time.
	Thu: 11/30	**Guest Speaking Event**. Speaker to be announced. **Attendance is mandatory**. **Be on time. The date of event may change.**	Also, see the Course Documents folder on BB for the exact date and time.
	Thu, 12/7, 11:30a.m. - 2:00p.m.	**Test 4 –** Chapters 12-14 and LN (to the extent it was covered in class and/or assigned for reading), in-class activities, and homeworks. See: http://louisville.edu/registrar/registration-information/final-exam-schedules	Test 4 will be a take home test, either on-line on Blackboard or hard copy.

V. Additional Work Details	
Blackboard	Posting and correction of grades. Grades will be posted on the course website (Blackboard) and students need to check them periodically. If a posted grade(s) is incorrect, please dispute within 1 week after it is posted by coming to my office, calling me or sending e-mail. No grades will be changed 1 week after the posting.
Participation and class contribution	• I strongly encourage you to participate in classes. The material from the textbook will be covered very selectively. Not every section in every chapter will be covered. The student will be fully responsible for all the material covered in class and the work assigned, whether present in class or

	not. Missing the class discussion may hurt the understanding of the material. • It is your responsibility to attend every class and turn assignments on time. If you choose to miss class, come late or leave earlier, ask your colleagues what was covered in class. If you have questions, which require longer answers, about any assigned problems (homeworks, labs, in-class activities, tests, etc.) or material covered in class, please come to my office. Face to face interaction is much more educational, more effective, and less time consuming than my replying to your e-mails.
Changes in the syllabus	Any changes to the syllabus and course schedule will be announced in class and posted on Blackboard.

V1. Student Responsibilities / College and University Issues	
University of Louisville student conduct and responsibilities	This course will abide by University of Louisville student conduct and responsibilities with regards to ethics and related issues: http://louisville.edu/dos/students/studentrightsandrespsonsibilities
College of Business student conduct and responsibilities	This course will abide by College of Business student conduct and responsibilities with regards to ethics and related issues: http://business.louisville.edu/students/college-of-business-academic-dishonesty-policy
Religious holiday conflict policy	http://louisville.edu/diversity/diversity-resources-for-students
University policy on equal access	http://louisville.edu/disability
Title IX/Clery Act Notification concerning sexual misconduct	http://louisville.edu/delphi/resources/syllabus/samples
Classroom policy	• Student conduct. Students are not forced to come to class. If students come to class, they chose to stay for the entire class period. Accidental leaving and returning to class, whenever you desire, is not allowed and will not be tolerated. Such behavior is considered Bad Conduct and shows bad manners. Furthermore, such behavior disturbs your classmates and instructor. Cell phones and pagers must be turned off. The use of laptop computers is restricted to this class only. No food or drink in COB classrooms and all computer labs. The only exception is a bottle or cup of water.

	• Everything submitted for grading must reflect your own work. Labs and homeworks should be handed in before class starts. All late assignments will be penalized 10% per calendar day. No assignments will be accepted after solutions are handed in, posted on Blackboard or discussed in class. Prior permission is needed for make-up examinations. "No shows" on test day will automatically receive a "zero" for that test.

VII. Other Notes
Please keep in mind that I have a **hearing disability** which severely impairs the hearing in my right ear and reduces the hearing in my left ear. This is a condition that cannot be easily remedied with the hearing aids I am wearing. To allow me to answer your questions please remain quiet during lectures and ask your questions loudly and clearly. If necessary, I will ask you to repeat the question and approach you.