

NET-478 (NET-378)

Information Storage and Management

Autumn 2023

Instructor: Joe Cannici
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Class Hours: Tuesday's 5:45 – 9:00

Course Overview:

This course is designed to provide a comprehensive introduction to storage technology and networking issues as they relate to the information storage infrastructure. It builds a strong understanding of underlying storage technologies and prepares students to learn advanced concepts and technologies. Major topics covered include the architectures, features, and benefits of Intelligent Storage Systems; networked storage technologies such as FC-SAN, NAS, and IP-SAN; as well as the increasingly critical area of information security and the emerging field of storage virtualization technologies.

Course Breakdown:

- 15% - Exercises (3 – 5% each)
- 15% - Homework (3 – 5% each)
- 10% - Topic Discussions (2 – 5% each)
- 10% - Quizzes
- 10% - Participation
- 20% - Midterm Exam
- 20% - Final Exam

Prerequisites:

None

Textbook:

Infrastructure Building Blocks and Concepts, Sjaak Laan's, Lulu Press, 2017. ISBN: 978-1-326-91297-0.

Reading Assignments:

Reading assignments are intended to be completed *prior* to the next class lecture. By reading the assigned material first students will have an opportunity to process the information and ask appropriate questions during the next class lecture. Reading assignments are mandatory and an integral part of the learning process. Students should not expect to perform at their best by simply listening to class lectures and will be expected to gain a fair amount of knowledge from the reading assignments.

Class Notes:

All of the slides used during lecture are available on the course web site. A hard copy of the first lecture will be handed out in class. All future hard copies are your responsibility. To print them, I suggest printing three slides to a page (to save paper). To do this in PowerPoint, click on File/Print/Print what: Handouts/Slides per page: 6.

Exercises:

Several practical exercises will be required during the quarter. Late exercise submissions will not be accepted...**no exceptions.**

Homework:

Several homework assignments based on the textbook reading will be given during the term. Homework must be submitted via COL. Late homework submissions will not be accepted...**no exceptions.**

Topic Discussions:

Two 5-10 minute topic discussion presentations will be required of each student. Students will be expected to perform additional research on a related topic covered in the class and submit a brief presentation of their findings.

Quizzes:

A quiz will be given at the beginning of most classes throughout the quarter in order to ensure that students performing the required reading assignments obtain credit for their effort and reinforce their knowledge and confidence in the subject matter. Questions will cover material from reading assignments as well as from material discussed in previous classes. There will be no opportunities for making up missed quizzes. If quizzes are missed, a grade of 0 will be assigned for that quiz.

Cell Phones:

As a courtesy to the other students and the instructor: If you must keep your cell phone on, *please* turn the ringer off and set the phone in front of you, or place cell phone on vibrate mode.

Grading Scale:

92 – 100	A	72 – 77	C
90 – 91	A-	70 – 71	C-
88 – 89	B+	68 – 69	D+
82 – 87	B	62 – 67	D
80 – 81	B-	60 – 61	D-
78 – 79	C+	0 – 59	F

Changes to Syllabus:

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Online Course Evaluations:

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism:

This course will be subject to the university's academic integrity policy. More information can be found at <https://resources.depaul.edu/teaching-commons/teaching/academic-integrity/Pages/default.aspx>.

Academic Policies:

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: <http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>.

Incomplete Grades:

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval. Information about the Incomplete Grades policy can be found at <http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

Students with Disabilities:

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling them to access accommodations and support services to assist with their success. There are two office locations:

- Loop Campus – Lewis Center #1420 – (312) 362-8002
- Lincoln Park Campus – Student Center #370 – (773) 325-1677

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gergory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations to be used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible.

Please see <https://offices.depaul.edu/student-affairs/about/departments/Pages/csd.aspx> for Services and Contact Information.

Proctored exams for OL courses

If you are an online learning student living in the Chicagoland area (within 30 miles of Chicago), you will need to come to the Loop campus to take an exam. Online learning students outside of the Chicagoland area are required to locate a proctor at a local library, college or university. You will need to take the exam within the window your instructor gives. Students should examine the course syllabus to find exam dates and the instructor's policy on make-up exams. Detailed information on proctored exams for online learning students can be found at <http://www.cdm.depaul.edu/onlinelearning/Pages/Exams.aspx>

COVID-19

COVID-19 Health and Safety Precautions: Keeping our DePaul community safe is of utmost importance in the pandemic. Students, faculty and staff are expected to (1) wear a cloth face covering at all times while on campus, both inside buildings and outside on the grounds; (2) maintain physical distance (at least six feet) in all DePaul spaces (including classrooms, meeting rooms, hallways, rest rooms, offices, and outdoor spaces); (3) conduct a daily self-screening process for the symptoms of COVID-19 using the #CampusClear app before coming to campus; (4) complete the online Health and Safety Guidelines for Returning to Campus training; and (5) abide by the City of Chicago Emergency Travel Order. By doing these things, we are Taking Care of DePaul, Together. The recommendations may change as local, state, and federal guidelines evolve. Students who have a medical reason for not complying should register with DePaul's Center for Student with Disabilities (CSD).

Academic Integrity:

Violations of academic integrity, particularly plagiarism, are not tolerated. Plagiarism is defined by the university as:

"..a major form of academic dishonesty involving the presentation of the work of another as one's own. Plagiarism includes but is not limited to the following:

- a. The direct copying of any source, such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or part, without proper acknowledgement that it is someone else's.*
- b. Copying of any source in whole or part with only minor changes in wording or syntax, even with acknowledgement.*
- c. Submitting as one's own work a report, examination paper, computer file, lab report or other assignment that has been prepared by someone else. This includes research papers purchased from any other person or agency.*
- d. The paraphrasing of another's work or ideas without proper acknowledgement.*

Plagiarism, like other forms of academic dishonesty, is always a serious matter. If an instructor finds that a student has plagiarized, the appropriate penalty is at the instructor's discretion. Actions taken by the instructor do not preclude the college or the university from taking further punitive action including dismissal from the university" (DePaul Student Handbook).

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu>. If you have any questions be sure to consult with your professor.

Approximate outline:

Week	Date	Topics	Chapters
1	9/12	Introduction to Infrastructure Availability Concepts	1-3 4
2	9/19	Performance Concepts Security Concepts Week 1 Quiz Due Week 2 Quiz Due	5 6
3	9/26	Datacenters Week 3 Quiz Due Homework #1 Due	7
4	10/3	Networking Week 4 Quiz Due Exercise #1 Due	8
5	10/10	Storage Week 5 Quiz Due Homework #2 Due	9
6	10/17	Midterm Exam Video Presentation #1 Due	
7	10/24	Compute Week 7 Quiz Due	10
8	10/31	Operating Systems Week 8 Quiz Due Homework #3 Due	11
9	11/7	End User Devices Hosting and Deployment Options Week 9 Quiz Due Exercise #2 Due	12 13-14
10	11/14	Infrastructure Lifecycle Week 10 Quiz Due Exercise #3 Due Video Presentation #2 Due	15-19
11	11/21	Final Exam	