

IS 215 Autumn 2020

Analysis and Design Techniques

Section 401 (on-line) meets MW 15:10 – 16:40 in Zoom Virtual Room (URL TBA)

Dr. Steve Rubinow

Email: srubinow@depaul.edu (see email guidelines below)

Office hours: MW immediately before or after class or by appointment

Office location: Zoom

Course information can be found on D2L: <https://d2l.depaul.edu/>

SUMMARY OF THE COURSE

This course presents a structured approach to analysis and design of an information system for a business. The systems development life cycle will be defined and described. Process descriptions, user and task analysis for interface development, prototyping, data flow and entity relationship diagramming will be presented.

PREREQUISITES

No previous knowledge of computers is assumed, or necessary.

LEARNING OUTCOMES

Students will be able to:

1. Explain the software development life cycle (SDLC) and why it is important.
2. Explain project management in support of system analysis projects.
3. Develop a business case and system requirements.
4. Develop process models, such as data flow diagrams (DFDs) and context diagrams.
5. Explain object modeling.
6. Develop Entity-Relationship Diagrams (ERDs).

REQUIRED TEXTBOOKS

Tilley, Scott and Rosenblatt, Harry J., (2020). Systems Analysis and Design, 12th Edition, Cengage Learning.

CONTACT INFORMATION

Instructor Contact Info/Email Guidelines:

- Email is the primary mode of off-line communication with the class
- Please make certain that your preferred email address is correctly listed on Campus Connect
- When emailing, please write the subject of your email as follows: IS 215 – *purpose of email*

ASSIGNMENTS AND GRADING

All work must be submitted either in class, or on D2L, as specified.

Only exception to the rule: If you are having trouble submitting on D2L, you may email your work. This will indicate that you completed the work on time.

Grading: Detailed instructions for all assignments will be posted on D2L.

Value	Assignment	Comments
45%	Assignments (6 assignments, 7.5% each)	<p>There is a mandatory assignment for many chapters plus two mandatory hands-on Lab Assignments (6 assignments in total). Assignments include case-style questions from the content of the pertinent chapter to enable the students to apply their knowledge of the chapter to a more practical context. Assignments must be submitted as, <i>at the discretion of the instructor</i>:</p> <ol style="list-style-type: none"> PDF files to D2L by the deadlines as explained in the course schedule at the end of this document. <p>OR</p> <ol style="list-style-type: none"> Assignment Discussion Boards: Students are required to post at least two responses under each of the designated D2L discussion boards. The evaluation will consider both the quality of contributions and the frequency of participation. Posting on prior week's boards will not allow for stimulating discussions with your classmates. The faculty role is as an observer and facilitator. I will be reading all messages and I will participate in the discussion as appropriate. The deadlines are the same as for 1 above. <p>Each assignment is worth 7.5% credit (total of 45% credit for 6 assignments). All assignments are <i>Turnitin</i> submissions, which means that they are automatically checked for plagiarism.</p>
18%	Quizzes (4 mandatory quizzes, 4.5% each)	<p>There is a mandatory quiz for most chapters of the textbook on D2L (total of 4 quizzes). Quizzes can help you prepare for the closed book exams. The exam questions will be comparable with quiz questions in terms of format, level of difficulty, and focus. The credit for each mandatory quiz is 4.5% for on-campus students (total of 18%). Each quiz can be taken for a maximum of 2 times and the highest score will be considered for grading.</p>
12%	Closed Book Exam 1 (there will be no make-up exam)	<p>There are two closed book exams in this course: closed-book exam 1 (chapters 1, 2, 4, 5, and 6) and closed-book exam 2 (chapters 3, 7, 8, and 9), as explained in the course schedule. The exams will be administered online, via D2L. Note the date and time for the exams in the course schedule.</p>
16%	Closed Book Exam 2 (there will be no make-up exam)	<p>See above.</p>
9%	Class Participation (<i>Students will participate via the D2L discussion feature.</i>)	<p>Class Participation Discussion Boards: Students are required to post on relevant class topics. The evaluation will consider both the quality of contributions and the frequency of participation. Posting on prior week's topics will not allow for stimulating discussions with your classmates. The faculty role is as an observer and facilitator. I will be reading all messages and I will participate in the discussion as appropriate. This will be graded in two parts – at the end of the 5th week and the end of the 10th week.</p> <p>AND</p> <p>Virtual in-class work and professionalism:</p>

Value	Assignment	Comments
		<ul style="list-style-type: none"> • Do the reading/viewing before class. Please be prepared to engage in meaningful and respectful class discussion. The entire class will benefit greatly if all voices are heard. • Handle in-class assignments professionally and respectfully. • Do not use electronic devices in-class (see policy below). • Arrive on time and stay in the classroom until the class is over. • Group work and group evaluations. <p>Students are expected to attend each class and to remain for the duration. The overall grade for participation drops one-third after any absence. Three absences for any reason, whether excused or not, may constitute failure for the course.</p>

TENTATIVE COURSE SCHEDULE

Week	Date	Class Focus & Content	Deliverables	Due at 11:59 PM (CT) (See the Due Dates below)
1	9, 14 Sep	<ul style="list-style-type: none"> Introduction to the Course Introduction to Systems Analysis and Design – Chapter 1 	<ul style="list-style-type: none"> Chapter 1 Assignment 	20 Sep
2	16, 21 Sep	<ul style="list-style-type: none"> Analyzing the Business Case – Chapter 2 Requirements Engineering – Chapter 4 	<ul style="list-style-type: none"> Chapter 1, 2 Quiz 	27 Sep
3	23, 28 Sep*	<ul style="list-style-type: none"> Requirements Engineering – Chapter 4 (continued) Hands-on Lab Assignment 	<ul style="list-style-type: none"> Hands-on Lab Assignment: Chapter 1, 2, 4 	4 Oct
4	30 Sep 5 Oct	<ul style="list-style-type: none"> Data & Process Modeling – Chapter 5 	<ul style="list-style-type: none"> Chapter 4, 5 Quiz 	11 Oct
5	7, 12 Oct	<ul style="list-style-type: none"> Object Modeling – Chapter 6 	<ul style="list-style-type: none"> Chapter 6 Assignment 	18 Oct
6	14 Oct	<ul style="list-style-type: none"> Closed Book Exam 1 (via D2L) from Chapters 1, 2, 4, 5, and 6. 		
	19 Oct	<ul style="list-style-type: none"> Development Strategies – Chapter 7 		
7	21, 26 Oct	<ul style="list-style-type: none"> Development Strategies – Chapter 7 (continued) Data Design – Chapter 9 	<ul style="list-style-type: none"> Chapter 6, 7 Quiz 	1 Nov
8	28 Oct	<ul style="list-style-type: none"> Data Design – Chapter 9 (continued) 	<ul style="list-style-type: none"> Chapter 9 Assignment 	8 Nov
	2 Nov	<ul style="list-style-type: none"> Hands-on Lab Assignment 	<ul style="list-style-type: none"> Hands-on Lab Assignment: Chapter 5,9 	
9	4, 9 Nov	<ul style="list-style-type: none"> Managing Systems Projects – Chapter 3 	<ul style="list-style-type: none"> Chapter 9, 3 Quiz 	15 Nov
10	11, 16 Nov	<ul style="list-style-type: none"> User Interface Design – Chapter 8 	<ul style="list-style-type: none"> Chapter 3 Assignment 	22 Nov
11	23 Nov 14:30-16:45	<ul style="list-style-type: none"> Closed Book Exam 2 (via D2L) from Chapters 3, 7, 8, and 9. 		

*instructor will not be present

LATE WORK POLICY

- In order to maintain good performance in this course, it is crucial to submit the deliverables on time. Deliverables are due on a specified date and time, as stated in the course schedule, unless an extension/exception is announced.
- Late assignments will be subject to a 10% penalty for each day of late submission (i.e., from one second to 24 hours late). Assignments that are more than three (3) days late will not receive any credit; no work will be accepted after the last day our class meets.
 - This policy is strictly enforced, unless informed of a documented emergency at least 24 hours before the deadline (i.e., all health problems should be supported by a proper doctor's note).
 - The only exception is the Hands-On Lab Assignments, where NO late submission will be accepted.

- It is students' responsibility to know when the assignments are due (see the course schedule)
- The assignment submission folder on D2L will automatically close three (3) days after the submission deadline. Once a folder is closed, no submission will be accepted.

GRADING SCALE

A 93–100	B+ 87–89	C+ 77–79	D+ 67–69	F 0–59
A- 90–92	B 83–86	C 73–76	D 60–66	
	B- 80–82	C- 70–72		

GRADING OPTIONS

Undergraduate students

- Students in all undergraduate classes, with the exception of those in CEO cohort programs, may opt to change the grading basis for any or all of their courses to Pass/D/Fail. A grade of Pass (P) will indicate that the student's work met expectations for a grade of at least C-. Work that would merit a grade of D+ or D in the traditional grading basis would still earn a D+ or D. Work that does not merit a passing grade will earn a Fail (F). The Pass/D/Fail grading option may apply to any graduation requirement, including courses in the major, minor, Liberal Studies Program or open electives.

Graduate students

School of Computing

- Students in graduate classes in the school will use the A/B/C/D/F grading basis.

School of Cinematic Arts & School of Design

- Students in graduate classes in these two schools may opt to change the grading basis for any or all of their courses to Pass/D/Fail. A grade of Pass (P) will indicate that the student's work met expectations for a grade of at least C-. Work that would merit a grade of D+ or D in the traditional grading basis would still earn a D+ or D. Work that does not merit a passing grade will earn a Fail (F). The Pass/D/Fail grading option may apply to any graduation requirement.

More information: <https://resources.depaul.edu/coronavirus/faqs/Pages/classes-academics-students.aspx>

CHANGES TO SYLLABUS

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

ELECTRONICS/BEHAVIOR POLICY IN THE CLASSROOM

- Out of respect for others in the class, please remember to turn off all electronic devices (except computer for class) during class. Failing to follow this policy results in penalties toward class participation credit.
- The class is discussion based. Thus, students are expected to prepare for class, arrive on time and remain in the classroom until the class is over, attend every class to progress satisfactorily towards course objectives, and behave in a respectful manner. Students are accountable for material covered and assignments/announcements made in any class sessions that they miss. Students are

expected to be active learners, coming to class prepared to participate in discussion of the topics under consideration, asking good questions and making valuable observations.

- Failure to comply will affect your class participation grade.

RELIGIOUS OBSERVATIONS

Accommodations will be made to allow students to fully express their faith. Please provide notice in advance by email if you will be absent, or need extensions on assignments, due to religious observations.

SCHOOL ACTIVITIES

Every effort to accommodate student participation in school activities, such as athletic competitions, will be made. Please provide notice in advance by email if you will be absent, or need extensions on assignments, due to school activities.

CIVIL DISCOURSE

DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be socially responsible leaders. It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course. The professor will collaborate with the Dean of Students Office to assist in managing such issues.

RESOURCES FOR STUDENTS WITH DISABILITIES

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately, during office hours, to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: Student Center, LPC, Suite #370 Phone number: (773)325.1677; Fax: (773)325.3720; TTY: (773)325.7296.

ACADEMIC POLICIES/ABSENCES

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:

<https://www.cdm.depaul.edu/Current%20Students/Pages/Enrollment-Policies.aspx>

In the case of illness, or other excused absences, a student may contact the Dean of Students to request a formally approved absence. Upon receipt of documentation, the dean's office will notify all instructors of the student that an approved absence has occurred. The notification will maintain student privacy by not including the reasons for the absence. Contact information may be found at:

<http://studentaffairs.depaul.edu/dos/contactus.html>

UNIVERSITY POLICIES

Incomplete Grades

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final and approved by the Dean of the College of Computing and Digital Media. Any

consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

Academic Integrity Policy

This course will be subject to the faculty council rules on the [Academic Integrity Policy web site](#).

Plagiarism

The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

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 providing 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 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 Campus Connect.

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 (312) 362-8002
- Lincoln Park Campus (773) 325-1677
- Email: csd@depaul.edu

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gregory 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.

Online Exam Accommodations for Spring Quarter

While CSD staff will work remotely from home, the CSD campus office locations will be closed. This means that when students have been approved for extended time for their exams, instructors will need to adjust the amount of time allotted for the student. Please contact your instructor to verify the extra time allotted for your exams. If students have additional or other exam accommodations and you are not certain how to proceed, please contact the CSD directly.

MAY BE REQUIRED FOR ONLINE EXAMS: RESPONDUS MONITOR (RESPONDUS LOCKDOWN BROWSER AND A WEBCAM)

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch this short video (<https://web.respondus.com/lockdownbrowser-student-video/>) to get a basic understanding of LockDown Browser and the webcam feature. A student Quick Start Guide (<https://web.respondus.com/wp-content/uploads/2019/08/RLDB-Quick-Start-Guide-D2L-Student.pdf>) is also available.

The privacy policies of both LockDown Browser and Monitor can be found at the links below:

Monitor: <https://web.respondus.com/privacy/privacy-additional-monitor/>

LockDown: <https://web.respondus.com/privacy/privacy-additional-lockdown-browser/>

If you have not downloaded and installed the LockDown Browser, you will be prompted to do so when you take a locked quiz.

Please take the Respondus Monitor Practice Exam in your D2L course to download the LockDown Browser and ensure that the required technology works before taking your midterm and/or final exams.

To ensure LockDown Browser and the webcam are set up properly, do the following:

- Start **LockDown Browser**, log into <https://D2L.depaul.edu> and select this course.
- Locate and select the **Help Center** button on the **LockDown Browser toolbar**.
- Run the **Webcam Check** and, if necessary, resolve any issues.
- Run the **System & Network Check**. If a problem is indicated, see if a solution is provided in the **Knowledge Base**. Troubleshooting information can also be sent to our help desk (<https://helpdesk.depaul.edu>).
- Exit the **Help Center** and locate the **Respondus Monitor Practice Exam** in **Quizzes**.
- Upon completing and submitting the practice quiz, exit **LockDown Browser**.

When taking an online exam that requires LockDown Browser and a webcam, remember the following guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Clear your desk of all external materials not permitted — books, papers, other devices
- Before starting the test, know how much time is available for it, and that you've allotted sufficient time to complete it
- Remain at your computer for the duration of the test
- If the computer or networking environment is different than what was used previously with the Webcam Check and System & Network Check in LockDown Browser, run the checks again prior to starting the test
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims
 - Ensure your computer or tablet is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
 - If using a built-in webcam, avoid tilting the screen after the webcam setup is complete
 - Take the exam in a well-lit room and avoid back lighting, such as sitting with your back to a window or lamp

Remember that LockDown Browser will prevent you from accessing other websites or applications unless specifically allowed by your instructor within the exam environment.