

**Management Science and Information Systems**  
**Course Number: 29:623:318**  
**Course Title: System Analysis & Design**

## **COURSE DESCRIPTION**

This course presents a practical approach for students to do the systems analysis and design where they are provided with an opportunity to design, implement, and document the system development life cycle. It provides an avenue for solutions in the system through the various tasks involved in doing the analysis.

- Define and describe in detail the five phases of systems development life cycle (SDLC): Systems Planning; Systems Analysis; Systems Design; System Implementation; and Systems Operations and Support.
- Provide the students with the tools for communications, economic analysis, and Project planning skills across all phases of the SDLC.
- Furnish students with an in-depth knowledge of how information systems support business requirements.
- Present real-world systems analysis and design skills in the context of solving realistic problems and practical guidelines for career success.
- Promote critical thinking skills and encourage student participation by providing case studies and lab projects.

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## **COURSE MATERIALS**

- Textbooks:

“Systems Analysis and Design” Eleventh Edition by Tilley | Rosenblatt  
ISBN: 9781305494602

- The Rutgers Canvas site for this course will contain lecture notes, reading materials, assignments, and late breaking news. It is accessible via: Canvas (<https://canvas.rutgers.edu/>) and your official Rutgers email account regularly.

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## **LEARNING GOALS AND OBJECTIVES**

This course is designed to help students develop skills and knowledge in the following area(s):

- Understand principles of systems analysis and design including the appropriate application of techniques to elicit and document user requirements of an information system.

- • Understand information technology (IT) project management principles in order to be able to apply these principles to a practical situation.
  - • Understand and use logic and logical processing.
- Students who complete this course will demonstrate the following:
- • Students will be able to translate business requirements into information systems that support a company's short- and long-term objectives.
  - • Case studies and assignments teach analytical and problem-solving skills.
  - • It helps students to prepare for different challenging roles like systems analysts, managers, etc.
- Students develop these skills and knowledge through the following course activities and assignments:
- • Lectures: Class lectures generally include an introduction to the 'system analysis and design' concepts and a slide presentation of the material. Lectures have interactive exercises to help ensure thorough comprehension of the material.
  - • Assignments: Assigned activity/assignment will be based on the course content which would help the students to reflect what is being taught and enhance their knowledge.
  - • Group project helps students to better coordinate with each other, explore managerial skills and teamwork.
  - • It will help to reinforce a practical approach.
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## ACADEMIC INTEGRITY

*I do NOT tolerate cheating.* Students are responsible for understanding the RU Academic Integrity Policy (<http://academicintegrity.rutgers.edu/>)

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, "On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment." I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don't let cheating destroy your hard-earned opportunity to learn. See [business.rutgers.edu/ai](http://business.rutgers.edu/ai) for more details.

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## ATTENDANCE AND PREPARATION POLICY

- Expect me to attend all class sessions. I expect the same of you. If I am to be absent, my department chair or I will send you notice via email and Canvas as far in advance as possible. If you are to be absent, report your absence in advance at <https://sims.rutgers.edu/ssra/>. If your absence is due to religious observance, a Rutgers-approved activity, illness, or family emergency/death and you seek makeup work, also send [me/TA] an email with full details and supporting documentation [within 3 days of your first absence].
- Expect me to arrive on time for each class session. I expect the same of you. [If you are going to be tardy, then you will be marked absent.]
- Expect me to remain for the entirety of each class session. I expect the same of you. [If you are going to leave early, then I would need valid reasons or else you will be marked absent.]

- Expect me to prepare properly for each class session. I expect the same of you. Complete all background reading and assignments. You cannot learn if you are not prepared. The minimum expectation is that for each 1 hour 20 minutes class session, you have prepared by studying for at least twice as many hours.
  - Expect me to participate fully in each class session. I expect the same of you. Stay focused and involved. You cannot learn if you are not paying attention.
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## **CLASSROOM CONDUCT**

- You are expected to be punctual, alert, and prepared for the class. You will be considerate of other students, which includes being quiet for the duration of the class period except when you have something to contribute to the class.
  - Please ask questions in class. If you are confused, more than likely several classmates are too. If you need extra help, please schedule an appointment in advance so the instructors can schedule their time efficiently.
  - Refrain from using cell phones, tablets, and laptops. You can use laptops when we discuss case studies in class.
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## **EXAM DATES AND POLICIES**

There are 3 exams in this course:

Midterm: 25%

Final Exam: 50%

Assignment: 25% (You will have total of 1 assignment)

### **During exams, the following rules apply:**

- If you have a disability that influences testing procedures, provide me an official letter from the Office of Disability Services at the start of the semester.
  - No cell phones are allowed in the testing area.
  - You must show a valid Rutgers photo ID to take and turn in the exam.
  - Use the bathroom prior to the exam start.
  - Your exam will not be accepted unless you sign the Honor Pledge.
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## **GRADING POLICY**

### **Course grades will be assigned as objectively as possible, according to the following scale:**

>90% = A

86 - 89% = B+

80 - 85 % = B

75 - 79 % = C+

70 - 74 % = C

60 - 69 % = D

<60% = F

### **Course grades are determined as follows:**

Assignments must be submitted before the beginning of the class on the specified due day. No late submissions will be accepted. No assignment will be accepted after class or late including the reasons of absence. Early submission will not be reviewed until the due date.

Your final grade is not subject to negotiation. If you feel I have made an error, submit your written argument to me within one week of receiving your final grade. Clarify the precise error I made and provide all due supporting documentation. If I have made an error, I will gladly correct it. But I will adjust grades only if I have made an error. I cannot and will not adjust grades based on consequences, such as hurt pride, lost scholarships, lost tuition reimbursement, lost job opportunities, or dismissals. Do not ask me to do so. It is dishonest to attempt to influence faculty to obtain a grade that you did not earn, and it will not work.

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**COURSE SCHEDULE (SUBJECT TO CHANGE)**

<b>Week</b>	<b>Topic</b>
1	Introduction to Systems Analysis & Design
2	System Planning: Analyzing the Business Case and Managing Systems Projects
2	Assignment Discussion
3	System Analysis: Requirements Modeling
4	System Analysis: Data and Process Modelling
5	System Analysis: Object Modeling & Development Strategies
6	Mid Term 1
7	Economic Feasibility
8	System Design: User Interface Design & Data Design
9	System Design: Data Design
10	System Implementation and Maintenance
11	System Support and Security
12	Presentation of Assignment
13	Final Exam

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**SUPPORT SERVICES**

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at [ods.rutgers.edu](http://ods.rutgers.edu).

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email [dsoffice@echo.rutgers.edu](mailto:dsoffice@echo.rutgers.edu)]

[Rutgers University-Newark ODS phone (973)353-5375 or email [ods@newark.rutgers.edu](mailto:ods@newark.rutgers.edu)]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email [jackie.moran@rutgers.edu](mailto:jackie.moran@rutgers.edu)]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu)]

If you seek *religious accommodations*, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email [DeanofStudents@newark.rutgers.edu](mailto:DeanofStudents@newark.rutgers.edu)]

If you have experienced any form of *gender or sex-based discrimination or harassment*, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: [https://cm.maxient.com/reportingform.php?RutgersUniv&layout\\_id=7](https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7) . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu). If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email [run.vpva@rutgers.edu](mailto:run.vpva@rutgers.edu)]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu>.

If you are a military **veteran** or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of **mental health** services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of **physical health** services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of **legal** services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to **English as a second language (ESL)** should contact the Program in American Language Studies for supports.

[Rutgers–Newark: [PALS@newark.rutgers.edu](mailto:PALS@newark.rutgers.edu)]

[Rutgers–New Brunswick: [eslpals@english.rutgers.edu](mailto:eslpals@english.rutgers.edu)]

If you are in need of additional **academic assistance**, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>]

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.

- Students must sign, date, and return a statement declaring that they understand this syllabus.]