# SUNY Polytechnic Institute

Systems Analysis & Design, IS 320, section: 01, CRN: 2276

Spring 2025 Semester

4 Credit Hours

On Campus; Rm: A133; Mondays and Wednesdays, 2:00pm-3:50pm

# Instructor

Dr. Amir Manzour. You can address me by: Dr. Manzour, Professor, or Amir.

# Office Hours and Contact Information:

Office Hours: C129. Tuesdays 10:00am-12:00pm and 2:00pm-4:00pm

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# Course (Catalog) Description:

System Analysis and Design describes how to understand and analyze the systems development life cycle, system modeling, system implementation, and systems security.

# Introduction:

This course covers the study of theory, concepts, tools, and practice-oriented applications. Students will be introduced to the real-world environment which a system analyst/designer typically encounters. In addition, students will be aware of the variety of stakeholders who function in the workplace, and how to deal with a wide-ranging and frequently disparate set of needs.

# Course Objectives:

* Define systems analysis and explain why it's important; describe the systems development life cycle (SDLC) at a high level.
* Assess methods and tools that are used in SDLC; compare and contrast varying methodologies within SDLC.
* Outline the process of project planning; describe various scheduling tools, monitoring methods and reporting techniques.
* Describe JAD, RAD and agile methods; describe UML tools and techniques; recognize symbols that are used in data flow diagrams.
* Describe the design phase of the system development life cycle; explain how to design an effective user interface.
* Discuss quality assurance, application development and the coding process; compare types of software testing and describe the purpose of post-implementation.
* Evaluate the basics of system support and security; describe backup and disaster recovery; develop a strategic plan.

# Student Outcomes:

By the end of this course, you will be able to …

# Explain the phases of System Development Life Cycle

# Plan information systems project

# Analyze pertinent processes using a variety of systems and models

# Develop project requirements

# Design an information technology solution

# Implement an information technology solution

# Required Text and Materials:

**Textbook:** Systems analysis and design (8th edition) by Alan Dennis, Barbara Wixom, and Roberta M Roth

**Software:** Microsoft Project 2013; Microsoft Visio 2013

Course materials are available through the [SUNY Poly Online Bookstore](https://sunypoly.textbookx.com/).

# Tentative Course Schedule:

|  |  |  |  |
| --- | --- | --- | --- |
| ***Week No*** | ***Quizzes (multiple choice, T/F)***  ***and Exams (problems, essays)*** | ***Textbook Lectures*** | ***Topics*** |
| WEEK 1 |  | Chapter 1 | System Analysis and Information Systems Development |
| WEEK 2 |  | Chapter 2 | Project Selection and Management |
| WEEK 3 |  | Chapter 3 | Requirements Determination |
| WEEK 4 |  | Chapter 4 | Use Case Analysis |
| WEEK 5 | **Midterm 1**  (Textbook Chapters 1-4) |  |  |
| WEEK 6 |  | Chapter 5 | Data Modeling |
| WEEK 7 |  | Chapter 6/Review | Moving into Design Class activity |
| WEEK 8 | Project Mid-Semester Deliverable | Chapter 7 | Architecture Design |
| WEEK 9 |  | Chapter 8 | Use Interface Design |
| WEEK 10 | **Midterm 2**  (Textbook Chapters 5-8) |  |  |
| WEEK 11 |  | Chapter 9 | Program Design |
| WEEK 12 |  | Chapter 10 | Data Storage Design |
| WEEK 13 |  | Chapter 11-12 | Moving into Implementation/Transition |
| WEEK 14 |  | Chapter 13 | Agile Development Methods |
| WEEK 15 | **Final Exam**  (Textbook Chapter 9-13) |  |  |
| Project Final Paper due | | | |

# Method of Evaluation:

|  |  |
| --- | --- |
| **Activity** | **Point Values** |
| Quizzes and In-class participation\* | 40% |
| Exams | 30% |
| Term Project | 30% |
| **Total Points** | 100% |

* The course is heavily geared towards class participation, discussions, and teamwork efforts

The final grade for this course will be based upon the following percentages:

|  |  |
| --- | --- |
| **Grade** | **Percent** |
| A+ | \* |
| A | 93-99 |
| A- | 90-92 |
| B+ | 87-89 |
| B | 83-86 |
| B- | 80-82 |
| C+ | 77-79 |
| C | 73-76 |
| C- | 70-72 |
| D+ | 67-69 |
| D | 60-66 |
| F | <60 |

**Please note that all core courses in the Information Systems department require a “C” or better to meet requirements.**

# Accommodations for Students with Accessibility Needs at SUNY Polytechnic Institute:

Your access in this course is important to me. In compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973, SUNY Polytechnic Institute is committed to ensuring comprehensive educational access and accommodations for all registered students seeking access to meet course requirements and fully participate in programs and activities. Students with documented disabilities, temporary, or medical conditions are encouraged to request services by contacting Student Accessibility Services (SAS) or filling out the [Request for Accommodations form](https://docs.google.com/forms/d/e/1FAIpQLSeKy_Wpp8H6p97nipJdwImXHgRJnKBDERDQ0goHCpBynjD-Rg/viewform). Please note, requesting accommodations is only the first step. You must provide documentation to SAS and meet with staff *before* receiving accommodations. Please do this as early as possible 1) because accommodations are never retroactive and 2) so that we have adequate time to arrange your approved academic accommodation/s. Once SAS creates your accommodation plan, it is your responsibility to provide me a copy of the accommodation plan.

If you experience any access barriers in this course, such as with printed content, graphics, online materials, etc., reach out to me or Accessibility Services right away. For information related to these services or to schedule an appointment, please contact the SAS using the information provided below.

[**Office of Student Accessibility Services**](https://sunypoly.edu/student-life/diversity-equity-inclusion/student-accessibility-services.html)[SAS@sunypoly.edu](mailto:SAS@sunypoly.edu)(315) 792-7170  
Peter J. Cayan Library, L112

# Technical Assistance for Students:

The [SUNY Poly Help Desk](https://helpdesk.sunypoly.edu) is in the Cayan Library on the first floor. You can contact them by phone at 315-792-7440, by email at [helpdesk@sunypoly.edu](mailto:helpdesk@sunypoly.edu), or by submitting an online help ticket on their website.

If the SUNY Poly Help Desk is closed, you can obtain assistance from the [Open SUNY Help Desk](https://online.suny.edu/help/) by calling 1-844-OPENSUNY (673-6786). The Open SUNY email is [OpenSUNYHelp@suny.edu](mailto:OpenSUNYHelp@suny.edu) or you can [submit an online help ticket](https://sunyonline.teamdynamix.com/TDClient/1985/Portal/Home/).

The SUNY Poly ITS website has [information about software and hardware](https://sunypoly.edu/its/hardware-software/student-software.html) that you can access as a student, as well as links to software you may need in your classes. Students are encouraged to save all work in multiple locations. MS Office OneDrive is available for use. For assistance, please contact the ITS Help Desk, [helpdesk@sunypoly.edu](mailto:helpdesk@sunypoly.edu) or 315-792-7440.

Academic Integrity and Code of Conduct:

SUNY Poly is committed to academic excellence in a climate of honesty, respect, and trust. The mutually respectful exchange of honest ideas is foundational to the intellectual vigor of the SUNY Poly community. The University seeks to maintain and enhance its educational environment through the development, promotion, and enforcement of standards for academic integrity. Please take a few minutes to become familiar with [SUNY Poly’s Community Standards](https://sunypoly.edu/student-life/community-standards.html), including the Student Handbook and Student Code of Conduct. SUNY Poly’s Academic Integrity Policy, which describes SUNY Poly’s policies regarding plagiarism and other inappropriate academic activities, can be found in the Student Handbook.

# Plagiarism Warning:

Any form of copying assignments from other classmates or cheating in the exam may result in failing the course and other negative academic consequences.

Policy on Submission of Assignments:

Submissions must be made by before 11:59pm EST of the due date. Please abide by http://www.time.gov/.

# Policy on Missed Classes, Make-up Work, and/or Extra Credit:

Inform the instructor of possibility of missing a class at least two weeks in advance.

# Cancellation of Classes Due to Inclement Weather or Other Emergency:

SUNY Poly has a 24-hour hotline, called Snowline, to inform students, faculty, and staff when severe weather prompts the cancellation of all classes. Snowline can be reached by calling 315-792-7385. In the event of severe weather, Snowline will announce only the cancellation of ALL classes. The cancellation of all classes will also be posted online and broadcast on radio and television stations in the Utica-Rome and Syracuse areas. The SUNY Poly website also maintains a list of [individual class cancellations](https://webapp.sunypoly.edu/forms/cancelled-classes/).

In addition, all SUNY Poly students and employees are enrolled in the Rave Alert emergency alert service. You can visit the [SUNY Poly Rave Alert website](https://sunypoly.edu/university-police/emergency-information.html) to learn more and to adjust your notification preferences.