University of Massachusetts Boston | College of Management	
Course Syllabus | SPRING 2025 | MSIS/IT 461: Systems Analysis and Design	
Instructor: Professor Banjo, T	**Phone: 857-919-9488**
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REQUIRED TEXTBOOK:

Introduction to Information Systems *by Rainer & Prince, Seventh Edition — Wiley, 2018*
ISBN: 9781119362968, Looseleaf ISBN: 9781119403500

COURSE DESCRIPTION

Introduces recent approaches to the analysis and design of computer information systems, including the hands-on use of computer aided software engineering (CASE) tools. The changing role of the systems analyst in both operations and systems applications in today's organizations is examined. The course critically analyzes systems development methodologies, including life cycle models and prototyping; reviews user-led developments and current approaches which facilitate user-developer collaboration; discusses effective diagramming and notational techniques now available to define and document functional requirements and operational business processes; and examines current methods used to test and evaluate the accuracy, completeness, and usability of documented requirements and convert them into efficient systems design or re-engineering processes. Topics include CASE tools, module and transaction design, human-computer interfaces, and system configuration. This course includes practical experience in analyzing and designing an organizational application. It discusses the concept of quality as applied to information systems and business process redesign as well as the role of information systems in managing quality within an organization.

PRE REQUISITES: IT 110 and 60 credits

OBJECTIVES: Successful contemporary information systems analysis, design, implementation, and evaluation are complex endeavors. It requires not only technical understanding, business acumen, and knowledge of systems analysis theory and methods but also the ability to be an effective change agent within multifaceted organizations.

At the end of this course, students will be able to demonstrate:

1. Understanding of the basic building blocks that encompass the systems analysis and design effort, including the systems development life cycle, systems planning techniques, and the precise modeling of data, processes, and networks.
2. Develop reasoning, problem-solving, and decision-making skills for information systems development.
3. Ability to evaluate and communicate technical information in the context of a formal presentation targeted to a management audience.

COURSE DELIVERY FORMAT

This course meets on campus according to the schedule posted above. The majority of the course content will be delivered through lectures and other activities conducted during class meetings. Online resources may be used to supplement the textbook or provide interaction with the content and/or assessment. The course will also have a portal page which contains the class syllabus, handouts, and important information (particularly in the event of a weather or emergency closing).

INSTRUCTIONAL METHODOLOGIES

Lecture, discussion, use of audio-visual materials and laboratory projects will be the techniques of instruction used in this course.

RESOURCES FOR ASSIGNMENTS:

Assigned readings, videos and tutorials are an important component of this course. Lectures, class and online forum discussions will correspond with assigned readings. Students are responsible for all material covered in the readings. Students are required to read and practice the example projects and exercises at the end of the textbook chapters as well as conduct research (both online and in the school library) to deepen knowledge and understanding of the lessons covered in the course. Individual research and practice before tackling each assignment or project is a proven method for gaining mastery of the course. Remember, practice makes perfect.

GRADING POLICY

- **60%** of the final grade is based on **assignments – including quizzes and labs.** Students MUST complete coursework as directed and by the indicated deadline to earn grades.
- **20%** of the final grade is based on **attendance/class discussion participation**. Students MUST attend classes as directed and participate in the class ONLINE discussion board to earn attendance credit.
- **10%** of the final grade is based on the **MIDTERM EXAM**. The final project will be based on all topics covered throughout the semester. An in-class review will be held prior to the finals.
- **10%** of the final grade is based on the **FINAL EXAM**. The final project will be based on all topics covered throughout the semester. An in-class review will be held prior to the finals.

A (> 93) A- (90-93)	Excellent to Very Good; comprehensive knowledge and understanding of subject matter; marked perception and/or originality
B+ (87-89.9) B (84-86) B- (80-83)	Good; moderately broad knowledge and understanding of subject matter; noticeable perception and/or originality
C+ (77-79.9) C (74-76) C- (70-73)	Satisfactory; reasonable knowledge and understanding of subject matter; some perception and/or originality

D+ (67-69.9) D (64-66) D- (60-63)	Marginal; minimum of knowledge and understanding of subject matter; limited perception and/or originality
F (< or equal 59.9)	Failing; unacceptable low level of knowledge and understanding of subject matter; severely limited perception and/or originality; absences in excess of allowable limit

LATE WORK: Assignments must be turned in on time and by the specified deadline. Except with prior permission and an extension granted by the class professor, **late submissions will not be graded**.

GRADES/SUPPORT SERVICES:

Generally, grades will be posted within 72 hours after the deadline of assignments. Students are encouraged to regular check their grades all through the semester – especially after grades have been posted and should immediately notify the instructor of errors in grading. The student should not wait until the end of semester before checking grades. In addition, this course instructor will gladly work with any student experiencing difficulty in the course to review materials and/or make suggestions regarding study techniques. Students may also find it helpful to seek assistance and guidance from their academic advisor or the College's tutoring center. It is in the student's best interest to take action as soon as he or she begins to experience any difficulty with the course material. The student should not wait until just before exams or projects to seek help.

ACADEMIC INTEGRITY: Note that academic dishonesty includes not only cheating, fabrication, and plagiarism, but also includes helping other students commit acts of academic dishonesty by allowing them to obtain copies of your work. In short, **all submitted work must be your own original**.

ATTENDANCE POLICY

Students are expected to attend all classes. Regular attendance is critical to success as a student. The following attendance policy has been established after careful consideration of input from students and faculty.

- Attendance is taken each class meeting.
- Each day that a student misses all scheduled classes counts as an absence; there is no distinguishing between excused and unexcused absences.
- Policy and procedure for late/missed assignments is documented in this syllabus

CLASS CANCELLATION POLICY

If the need ever arises that the instructor will not be able to attend the class every attempt will be made to contact students in ample time prior to the class meeting time. Class work will be made up at a time that is convenient to all students.

COMMUNICATION WITH INSTRUCTOR

The best means of communication is by email. Use your college-issued email. If you do not have a working College email account, please contact Information Technology.

SPECIAL ACCOMODATIONS:

The College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student who is seeking accommodations based on your disability, please contact the appropriate Disability Support Services Coordinator to discuss reasonable accommodations:

CLASSROOM POLICIES: ETIQUETTE AND PROFESSIONALISM

Students are expected to:

1. **VERY IMPORTANT: Turn off cell phones while in class except with prior permission. Using cell phones in class is distracting to the instructor and disrupts teaching.**
   Students who violate this policy may drop attendance points. This means you may NOT earn credit for class attendance.
2. Be on time for class.
3. Raise your hand to ask a question.
4. Treat others the way THEY wish to be treated.
5. Refrain from talking over others or the instructor, disturbing the class with electronic devices etc.
6. Audio (not video) taping of lectures is allowed if permission is granted by the instructor.

COURSE CONTENT

Lessons	Class Topic & Objectives	Assignments
Lesson 1	Intro to the course, Introduction to Information Systems: ➢ Computer-Based Information Systems ➢ How Does IT Impact Organizations? ➢ Importance of Information Systems to Society	Lesson 1 assignment /hands-on project/ discussions/group project
Lesson 2	Organizational Strategy, Competitive Advantage, and Information Systems: ➢ Business Process Management ➢ Business Pressures, Organizational Responses, and Information Technology Support ➢ Competitive Advantage and Strategic Information Systems	Lesson 3 assignment /hands-on project/ discussions/group project
Lesson 3	Ethics and Privacy: ➢ Ethical Issues: Threats to the privacy of stored data o *Responsibility, accountability, and liability*	Lesson 4 assignment /hands-on project/ discussions/group project

	➢ Privacy: Potential threats to the privacy of personal data.	
Lesson 4	Information Security: ➢ Threats to Information Systems: *Identifying factors that contribute to the increasing vulnerability of information resources* ➢ Information Security Controls: *Exploring types of deliberate attacks*	Lesson 5 assignment /hands-on project/ discussions/group project
Lesson 5	Data and Knowledge Management: ➢ Managing Data: *Addressing common challenges in managing data using data governance* ➢ The Database Approach ➢ Big Data: *High-volume, high-velocity, and high-variety*	Lesson 6 assignment /hands-on project/ discussions/group project
Lesson 6	Telecommunications and Networking: ➢ Network Fundamentals: *Comparing and contrasting the two major types of networks and media* ➢ Wireless ➢ The Internet and the World Wide Web	Lesson 7 assignment /hands-on project/ discussions/group project
Lesson 7	Social Computing ➢ Web 2.0 ➢ Social Computing in Business, Shopping & Marketing ➢ Customer Relationship Management (CRM)	Lesson 8 assignment /hands-on project/ discussions/group project
Midterm Exam		
Lesson 8	Information Systems within the Organization: ➢ Transaction Processing Systems (TPS) ➢ Functional Area Information Systems (FAIS) ➢ Enterprise Resource Planning Systems (ERPs)	Lesson 9 assignment /hands-on project/ discussions/group project
Lesson 9	Customer Relationship Management and Supply Chain Management: ➢ CRM, SCM ➢ Supply Chains ➢ Information Technology Support	Lesson 10 assignment /hands-on project/ discussions/group project
Lesson 10	Business Analytics/Business Intelligence: ➢ Descriptive Analytics ➢ Predictive Analytics ➢ Prescriptive Analytics ➢ Presentation Tools	Lesson 11 assignment /hands-on project/ discussions/group project

Lesson 11	Acquiring Information Systems and Applications: ➢ Planning for and Justifying IT Applications ➢ Strategies for Acquiring IT Applications ➢ Traditional Systems Development Life Cycle (SDLC) ➢ Computer-aided software engineering (CASE) ➢ Alternative Methods and Tools for Systems Development	Lesson 12 assignment /hands-on project/ discussions/group project
Final Exam		

This syllabus information and schedule may change at the discretion of the instructor based on the determination that such changes would better meet the learning objectives of the course.