Systems Analysis and Design
BUS 444
Syllabus – Fall 2018

Contact Information
Professor: Sarah S. Khan
Email: sskhan@ncsu.edu
Office: 4132 Nelson Hall
Phone: (Email is strongly preferred). Please put "BUS 444" in the subject line of emails sent to me, so I can respond to them at the earliest.

Course Website and Online Tools
Moodle: https://wolfware.ncsu.edu/

Office Hours
Times are specified on the course homepage.

Required Course Materials

Pearson Learning Solutions. (2018). Systems Analysis and Design, Custom Text - Second Edition, NC State University
ISBN-9781323882795

Class Time/ Location
M W 1:30 PM - 2:45 PM / Nelson B410

Prerequisite
BUS 340 Information Systems Management
Helpful to have completed BUS 440 and BUS 442

COURSE DESCRIPTION
This course provides an overview of methodical approaches to developing Information Systems through systems analysis and design. Principles and techniques of systems analysis and design are introduced so that students can successfully cope with the complexities of developing information systems. Topics to be covered include software development processes, project management, requirements analysis, systems analysis, and systems design. Emphasis is placed on the analysis phase and the role of the analyst and end users in the process within the realm of the organizational structure, politics, and culture. Systems analysis and design methods covered include agile software engineering, structured analysis and design, and object-oriented analysis and design techniques.

GOALS OF THE COURSE

After this course, the student should be able to:

1. Understand the role of the systems analyst in modern organizations and how the analyst functions in each of the major systems-development activities.
2. Describe the concepts of a system and what it means to develop and implement an Information System in an organization.
3. Describe and understand the major system development processes.
4. Identify the information and processing needs of the organization by eliciting, identifying, recognizing, and capturing requirements for Information Systems.
5. Clearly represent the system analysis and design by using basic modeling tools such as use cases, data flow diagrams, and various UML diagrams.
6. Understand how to plan, schedule, execute, and control a systems project using modern project management techniques and tools.

Attendance Policy

For complete attendance and excused absence policies, please see
http://policies.ncsu.edu/regulation/reg-02-20-03
Acceptable reasons for missing class are generally limited to:

- Medical
  (Documentation from a medical professional is required)
- Legal
  (Documentation from the Clerk of Court is required)
- Death of family member
  (Documentation from the funeral home or a copy of the obituary is required)
- University sanctioned events
  (Proof of sanctioning and attendance is required)
- Religious observances
  (Notification within the first week of class is mandatory)

All other excuses may be accepted or rejected at the discretion of the professor. Generally, the sooner I know about something, the better. Students who exhibit poor attendance typically earn at least one letter grade below the class average for the course. The professor (and TAs) reserve the right to refuse to answer questions regarding course content from students who, in the sole opinion of the professor and/or TAs, have a poor attendance record.

Class Participation and Quizzes

Students are expected to come to class prepared by reading and studying the assigned material. In-class exercises and quizzes are given throughout the semester. There will be plenty of quizzes and in class exercises. **These exercises and quizzes will reward those preparing for and attending class**. You will be responsible for all class material, even if it is not covered in the textbook or on the Powerpoint slides. There will be no make-up in-class activities.

While quizzes will be graded, in-class exercises will be recorded as 100% (for any reasonable attempt) or 0% (if absent or no attempt). You either participate in them or not; that is why they are called participation exercises. I may view some of these assignments in class. Students whose work I don't

see must be ready to hand in their work (printed) before they leave class for the day. If completed correctly, a grade of 100% will be assigned. I will assign graduated grades for incomplete or obviously incorrect work (e.g., 75%, 50%, or 25%). **In class exercises' grades will go towards "class participation".**

Homework Assignments and the Projects

Students will be required to use the computer to complete the homework assignments and the projects, unless specified otherwise. No late assignments or projects will be accepted. This means that if you are having a problem getting the assignment completed, you need to talk to the instructor about it before the due date. ***All assignments and projects will be graded on content, grammar, and professionalism*.** Points will be taken off for poor writing. Many students go beyond what is asked to make their assignments more professional and have better quality. These efforts will be reflected in grades. Assignments must be presented in a professional format. **An assignment not completed and handed in by the due date will be recorded as a zero.** Homework assignments grades will go towards "class participation".

Exams

There will be three exams during the semester and an optional final exam**.** You must take the final exam at the scheduled time. Please plan accordingly! Note the date and time scheduled for the final exam in this course. Per university policy, students with more than three consecutively scheduled final examinations within a 24-hour period must obtain approval to request a change of exam time/date through the Department of Registration and Records (not the instructor; see R&R regulations) prior to the scheduled examination.

Makeup Work & Makeup Exam Policy

All work is required to be turned in when due. Acceptable reasons for requesting permission to turn in late work or schedule a makeup exam are limited to those outlined in the Attendance Policy section. Makeup exams and quizzes are scheduled solely on the makeup day on the course schedule.

Moodle Grades:

Each grade for an exam or assignment is posted in Moodle before the assignment is returned. Each student is responsible for checking his/her grades in Moodle after a graded exam or assignment has been handed back. While great care is given to ensure grades are entered correctly, periodically mistakes can occur. You have up to one week to email with corrections after an assignment or grade is handed back. No grade changes will be made to assignments or exams after one week.

CLASSROOM CONDUCT

System Analysts are the front face of very important and expensive projects around the world. Hence, it is important to get trained professionally. I will make every effort to conduct this class in a business-like manner and I expect the same from you. Here are a few examples:

1. Electronic Devices: **TURN OFF CELL PHONES BEFORE CLASS STARTS**. No iPods, MP3 players, or headphones. No electronic devices may be powered on except laptops being used for taking notes pertaining to class discussions.

2. Reading the news, studying for classes, and doing homework are all things that I encourage you to do. However, do not do these things during class.
3. Speak up, and participate!
4. This is a tough class. You will need all the help you can get to learn from it. Get to know your classmates and work in teams whenever required.

POLICIES AND PROCEDURES

University Policies on Academic Honesty: North Carolina State University is above all an institution organized around and committed to the search for and dissemination of truth. Thus it becomes the responsibility of every member of the community to adhere to the highest standards of honesty in carrying out this commitment. If any member fails in this regard, the University has the obligation to take action to make sure that these standards are met. The NCSU Code of Student Conduct www.ncsu.edu/student_conduct is followed in this course. Copying and cheating will be severely punished. Honesty in your academic work will develop into professional integrity. Any suspected violation will be promptly reported. **Academic dishonesty may result in an automatic failing grade for the course.**

GRADES

- 3 Exams (45% total). Cumulative final exam is optional and replaces the lowest exam grade.
- Homework assignments and Class participation (20%)
- Projects (15%)
- Quizzes (20%)

GRADING SCALE

A+	97-100%	B+	87-89%
A	93-96%	B	83-86%
A-	90-92%	B-	80-82%
C+	77-79%	D+	67-69%
C	73-76%	D	63-66%
C-	70-72%	D-	60-62%
		F	< 60%

It is important to recognize that a grade (like an employee evaluation) reflects another's judgment of your work. Accordingly, grading is subjective and different reviewers may judge work differently. You are encouraged to meet with the instructor at any time to discuss your work or the assessment methods. However, re-grading is unlikely unless obvious grading errors have been made. This policy is intended to assure fairness and continuity in the grading process.

Tentative Course Outline (May Subject to Change)

Date	Topic
22-Aug	**No Class**
27-Aug	Course Introduction
29-Aug	Chapter 1: Systems Development Environment
3-Sep	**Labor Day - No Class**
5-Sep	Agile Methods - PM
10-Sep	Chapter 2: Managing the IS Projects
12-Sep	Project Scheduling
17-Sep	Chapter 3: Identifying and Selecting Systems Development Projects
19-Sep	Chapter 4: Initiating and Planning Systems Development Projects
24-Sep	**Exam 1**
26-Sep	Chapter 5: Determining Systems Requirements
1-Oct	Analyzing Requirements Data
3-Oct	Chapter 6: Structuring Process Requirements
8-Oct	Advance Dataflow diagrams
10-Oct	Introduction to Process Logic
15-Oct	Chapter 6: Appendix A Use Case Diagrams
17-Oct	Chapter 6: Appendix B Activity Diagrams
22-Oct	Chapter 6: Appendix D Business Process Modelling
24-Oct	Chapter 7: Structuring System Data Requirements
29-Oct	Chapter 7 Appendix - Class Diagrams
31-Oct	**Exam 2**
5-Nov	Product Prototyping
7-Nov	Chapter 8: Designing Databases
12-Nov	Chapter 9: Usability of Interactive Systems
14-Nov	Chapter 9: Usability of Interactive Systems- Advance Topics
19-Nov	Chapter 10: Guidelines, Principles and Theories
21-Nov	**Thanksgiving Holiday-No Class**
26-Nov	Chapter 11: Designing Interfaces and Dialogues
28-Nov	Chapter 11: Designing Interfaces and Dialogues
3-Dec	**Exam 3**
5-Dec	**Make up Day**
14-Dec	**End Semester Exam (1-4 PM)**