
# Analysis and Logical Design

## COSC 3375

## Fall 2022

**Course Description**

Prerequisites: COSC 1337. This course introduces the systems development process. Topics covered include structured and object-oriented analysis and design, the use of modeling tools, the methodological lifecycle and project management. It includes the study of interpersonal skill development with clients, users, team members and others associated with the development, operation and maintenance of systems.

**Class Time**

Tues/Thurs 8:00am – 9:20am COB 255

**Instructor Information**

Dr. Robert P. Schumaker
Professor, Computer Science Dept.
rschumaker@uttyler.edu

**Office Hours**

DM through Slack (preferred), Zoom, email
If your inquiry is grade-related, please make a Zoom or physical appointment
No appointment needed for Tuesdays and Thursdays 9:30am – 11:00am in COB 315.05

**Textbook Information**

Systems Analysis and Design (Dennis, Wixom and Roth) ISBN: 978-1-119-80378-2

**Software Information**

https://store.visiblesystemscorp.com/(S(tq2xr1cqjp0abh3tb3u5zfwl))/AnalystEduc.aspx

**Course Objective**

This course is designed to provide an understanding of Systems Analysis and Design and its function. By the end of this course students are expected to:

- Specify the starting point of systems analysis including strategic systems planning, review of systems requests, risk assessment, feasibility analysis and the steps in performing preliminary systems investigation
- Perform requirements modeling and fact-finding techniques
- Apply basic approaches to the development of application software
- Identify current IT issues and major trends in systems development
- Describe team-based modeling methods, including JAD and RAD
- Carry out enterprise modeling using entity relationship and data flow diagrams
- Explain the transition from the analysis phase to the design phase
- Implement data modeling and database design
- Perform user interface, input and output design
- Describe systems implementation procedures including structure charts, system testing, user training, data conversion, changeover methods and post-implementation evaluation
- Explain systems operation, management and maintenance
- Discuss the role of ethics in the information systems profession

**Computer Account Access**

Students will need a Patriot account and password for computer access. This information can be found at http://www.uttyler.edu/ccs


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**Course Documents and Slides**

This class will use Canvas for course documents, slides, quizzes and other class-related materials. Students are encouraged to check the website frequently during the course of the semester to keep up to date about course changes.

**Course Grading**

Course evaluation will be based on the following:

| | |
|---|---|
| Quizzes (10 @ 5 pts) | 50 |
| Visible Analyst Exercises | 35 |
| Lifelong Learning | 5 |
| Class Participation | 10 |
| Total Points | 100 |

**Grading Scale**

| | |
|---|---|
| A | 90.0 points or more |
| B | 80.0 to 89.999 points |
| C | 70.0 to 79.999 points |
| D | 60.0 to 69.999 points |
| F | 59.999 points or less |

**Course Policies**

1. Quizzes – Quizzes will be administered on topics previously presented and can include lectures, cases or assigned readings. They are designed to measure the student's mastery of the material as well as their ability to use these skills in an efficient manner. Quiz questions may come in many different formats.

2. Visible Analyst Exercises – To master the material, students will be expected to create appropriate diagrams using the Visible Analyst tool.

3. Lifelong Learning – It is imperative for successful individuals to continue learning throughout their lifetime. Professional organizations are a wonderful opportunity to reinvent, retool and build connections with industry leaders. Students that attend a professional technology organization meeting (and bring proof of attendance) will receive credit. Upcoming meetings and events can be found on Canvas. Online webinars will be accepted.

4. Class Participation – Class Participation points will be scored by the quantity of quality discussion a student contributes regarding relevant technology-related articles. The maximum points that can be earned is ten.

5. Missed Classes, Tests/Quizzes and Assignments – Students who miss class are responsible for getting missed materials and lecture information on their own time from their peers. Any tests/quizzes and/or assignments due during the student's documented absence will be due by 5pm of the day of their return with no penalty.

6. Time Outside of Class: This course is a computer application course that requires students to complete computer application exercises and projects**.** It is the responsibility of the student to make a **backup** of all assignments or application projects. *If your work is not saved and accessible by the instructor, then it cannot be evaluated and a grade of F will be given for that particular project or assignment.* BACKUPS of projects and tests are imperative in order to avoid lost or damaged data.

7. Classroom Lab Rules
   - Please do not surf the Web during class unless instructed to access the Internet.
   - Do not access inappropriate Web sites during class. This will lead to dismissal from the class.
   - Please do not work on other computer assignments during class.
   - Please do not talk to your neighbor during class.
   - Please do not bring food or an uncovered drink into the computer classroom lab.
   - Please do not order food to be delivered to the classroom.
   - Do not use your phone during class.

8. Memes. Create a custom meme about taking this particular class (could be Systems Analysis and Design, Dr. Schumaker or UT Tyler related). Post your meme in the class Slack channel (#cosc3375) before August 26 at 5pm for a bonus point. Keep this to yourself and do not share it with classmates. Thanks for reading the syllabus.


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## ***Tentative Course Schedule and Assignments:***

Scheduled dates may vary depending on the pace of the class.

| Date | Concept | Readings |
|---|---|---|
| Aug 23 | Introduction | |
| Aug 25 | Overview and How it all fits together | |
| Aug 30 | The Systems Analyst and Information Systems | Chapter 1 |
| Sept 1 | | |
| Sept 6 | Project Selection and Management | Chapter 2 |
| Sept 8 | | |
| Sept 13 | Requirements Determination | Chapter 3 |
| Sept 15 | | |
| Sept 20 | Understanding Processes with Use Cases | Chapter 4 |
| Sept 22 | | |
| Sept 27 | Data Modeling | Chapter 5 |
| Sept 29 | | |
| Oct 4 | Moving into Design | Chapter 6 |
| Oct 6 | | |
| Oct 11 | Architecture Design | Chapter 7 |
| Oct 13 | | |
| Oct 18 | User Interface Design | Chapter 8 |
| Oct 20 | | |
| Oct 25 | Program Design | Chapter 9 |
| Oct 27 | | |
| Nov 1 | Data Storage Design | Chapter 10 |
| Nov 3 | | |
| Nov 8 | Project Work Day | |
| Nov 10 | Project Work Day | |
| Nov 15 | Moving into Implementation | Chapter 11 |
| Nov 17 | | |
| Nov 22 | No Classes – Thanksgiving | |
| Nov 24 | No Classes – Thanksgiving | |
| Nov 29 | Transition to the New System | Chapter 12 |
| Dec 1 | | |