COURSE INFORMATION

COURSE TITLE
CIS268: Systems Analysis and Design I

COURSE DESCRIPTION
Introduces the student to the materials, techniques, procedures, and human interrelations involved in developing computer information systems. Includes the systems approach, fact gathering techniques, forms design, input/output, file design, file organization, various charting techniques, system audits on controls, project management, implementation, and evaluation.

CREDIT HOURS
3

CCCOnline Course Policies

The CCCOnline Course Policies page contains information about the student's role in the classroom, grading policies, and rights and responsibilities.
**COURSE MATERIALS**

Since this course utilizes Open Educational Resources (OER), there is no textbook. All course reading material is available online and linked within the course site. You do not need to purchase any additional materials.

**Minimum Computer Requirements**

To complete this course, you will need *regular* access to a computer from which you can get to the internet and use email. In order to ensure that your course functions properly, you must run the System Check. This is a CRITICAL STEP, and taking the time to do it now will eliminate a tremendous amount of frustration for you later. To run the System Check, click Tools in the course NavBar and then click System Check.
COURSE COMPETENCIES AND OUTCOMES

STUDENT COMPETENCIES

The competencies you will demonstrate in this course are as follows:

A. Explain the key role of a systems analyst in business
B. Explain the purpose and phases of the system development life cycle (SDLC)
C. Describe the three approaches used to develop information systems
D. Describe the types of models used for systems analysis and design
E. Describe the differences and similarities between relational and object-oriented database management systems
F. Describe rapid development, prototyping, and spiral development approaches
G. Describe implementation and post-implementation activities

The module outcomes that will permit you to demonstrate course competencies are:

MODULE 1

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Define Systems Analysis &amp; Design, SAD</td>
<td>A</td>
</tr>
<tr>
<td>2  Explain the key role of a systems analyst in business enterprises.</td>
<td>A</td>
</tr>
<tr>
<td>3  Define basic terms related to IS and SAD</td>
<td>A-E</td>
</tr>
<tr>
<td>4  Identify an aspect of SAD in terms of an actual company</td>
<td>A, D</td>
</tr>
</tbody>
</table>

MODULE 2

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Explore the System Development Lifecycle</td>
<td>B</td>
</tr>
<tr>
<td>2  Analyze the similarities between the SDLC and the approaches used in Systems Analysis</td>
<td>B, C, D</td>
</tr>
<tr>
<td>3  Define the Project Management Knowledge Areas</td>
<td>B</td>
</tr>
</tbody>
</table>

MODULE 3

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Determine the value in alternate development approaches.</td>
<td>C, F</td>
</tr>
<tr>
<td>Explore Unified Modeling Language and it uses.</td>
<td></td>
</tr>
<tr>
<td>2  Explore the SCRUM, AGILE, Waterfall approaches to systems design.</td>
<td>D, F</td>
</tr>
<tr>
<td>3  Explore Unified Modeling Language and its uses</td>
<td>B, C</td>
</tr>
</tbody>
</table>

MODULE 4

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Demonstrate an understanding of relational vs. object-oriented databases</td>
<td>E</td>
</tr>
<tr>
<td>2  Analyze the key aspects which lead to project success</td>
<td>A, B, F, G</td>
</tr>
<tr>
<td>3  Explore and differentiate types of project risk</td>
<td>B</td>
</tr>
</tbody>
</table>
Module 5

Outcomes
1. Explain the activities which occur during each phase of a project implementation
2. Assess the importance of stakeholder engagement in post implementation activities

Competencies
C, G
A, G

Grading and Evaluation

Methods
Evaluation includes a combination of discussion participation, assignments, and other evaluations. Rubrics are provided for assignments and discussions.

Grading Policies
Mark all Module due dates on your calendar for this class. You may submit assignments AHEAD of schedule.

Late assignments will not be accepted without prior approval. It is up to the student to obtain prior approval for any assignments which will be submitted after the posted due dates. No late work is accepted after the end of the semester.

If a student experiences a technical problem, it is the student’s responsibility to contact their instructor and Tech Support immediately.

Summary of Grading

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions (5 @ 75 points each and 1 @ 10 points)</td>
<td>385</td>
<td>28%</td>
</tr>
<tr>
<td>Quizzes (1 @ 50 points)</td>
<td>50</td>
<td>4%</td>
</tr>
<tr>
<td>Online Classroom (5 @ 25 points each)</td>
<td>125</td>
<td>9%</td>
</tr>
<tr>
<td>Student Presentations (3 @ 50 points each)</td>
<td>150</td>
<td>11%</td>
</tr>
<tr>
<td>Assignments (4 @ 100 points each)</td>
<td>400</td>
<td>30%</td>
</tr>
<tr>
<td>Course Project (1 @ 200 points)</td>
<td>200</td>
<td>18%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1310</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Grading Scale

A = 90 to 100%   B = 80 to 89%   C = 70 to 79%   D = 60 to 69%   F = 59% and below
**Online Classroom**

The Online Classroom is a student’s opportunity to interact with the instructor in real time to get answers to questions and to discuss the course material. Often, the instructor can clear up an issue in ten minutes that would normally require a multi-day email exchange. Online classroom attendance is a graded activity. Students either attend the live session OR if they cannot meet at the scheduled time, are required to review the session recording and submit a one-page review to the appropriate drop box within 48 hours of the missed session.

**Discussions**

Discussions have two parts. Part one is the initial post which is due on select Wednesdays (see the course schedule). Beginning on Thursdays at 12:01 a.m. students post responses to at least two of their classmates’ initial posts. Initial discussion posts and the response posts are graded using the discussion rubric.

Students who submit their initial posts after the Wednesday due date will not receive credit for their initial post. Late initial posts will be considered as response posts which will earn significantly reduced points. Response posts may not be submitted until after the deadline for the initial post. This is meant to make sure that all students have a chance to read all of their classmate’s posts. Response posts made before Thursday at 12:01 a.m. and after Sunday at 11:59 p.m. may not be counted towards a student’s discussion grade.

**Assignments**

Each Module will have a research assignment. Module assignments are due on the last day that a module is available. Assignment due dates are listed in the course schedule.

Research assignments will require a significant amount of research to complete. Students may use the course explorations for some of the material used in the assignment. However, the bulk (more than 75%) of the material cited in the assignments must be from external sources such as articles found in periodicals, books, professional journals, and media such as professional videos and podcasts.

All sources used in assignments must be properly cited using APA standards.

Put your name on all your assignments in the upper right corner. I will send back anything that does not have your name on it. I know this seems picky, but this helps me keep track of each document I download for grading.
**Student Presentations**

Students will submit a recorded presentation for modules 2 through 5. By using a presentation tool such as Power Point the student will add annotations and save the file as a playable file. Presentations should be at a minimum 4 to 5 minutes in length and cover the topic assigned.

**Quizzes**

Module 1 will contain this course’s only quiz. The quiz will be due at 11:59 p.m. on the date specified in the schedule. The quiz will be 10 questions that will be time-limited.

Students will be able to take each quiz twice. However, students must earn a grade of 40% or higher to qualify for a second attempt. This requirement is to discourage students from taking a quiz just to see the questions, and then studying exclusively for those questions. The higher grade achieved will be the one that counts towards your grade in this course. The 10 questions will be drawn from a question pool, so students will not get the same questions on each attempt.

**Course Project**

During this course, you will be putting together a course a course project using the lessons presented in this class. During the first module of the course you will submit project ideas to the course instructor for review. This review will ensure that there is enough content within the idea to support a course project.

The final course project will be submitted in Module 5 and will include the following components:

- A recorded presentation of your project
- A paper outlining your design approach and project materials
- Cited references
- See Project Instructions for a full list of project requirements

<table>
<thead>
<tr>
<th>Module:</th>
<th>Project Phase:</th>
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<tbody>
<tr>
<td>One</td>
<td>Project Idea</td>
</tr>
<tr>
<td>Two</td>
<td>Project Introduction, Analysis of the Problem, Expectations</td>
</tr>
<tr>
<td>Three</td>
<td>Design Approach, Use Case Diagram, Development Approach</td>
</tr>
<tr>
<td>Four</td>
<td>Project Risks, Key Phases of Project Implementation, Testing</td>
</tr>
<tr>
<td>Five</td>
<td>Project Plan, Project Activities, Project Submission</td>
</tr>
</tbody>
</table>
In Module One, students will submit an idea to the course instructor for review, during Modules 2 through 5, students will work on the project content. During the course, content during Modules 2 through 4 is not graded but can be submitted for review by the instructor. It is strongly advised that students take advantage of these opportunities, as content review will only be completed during the scheduled module.

**COURSE SCHEDULE**

The Schedule is subject to change as needed.

This page summarizes all of the graded assignments, exams, and reading assignments for the course. If you want, you can print it out and post it somewhere handy.

All assignments are described in detail on the Module assignment pages. If you have questions check there and/or send me an e-mail.

This course is not self-paced and is not open-exit. All assignments, papers, quizzes, discussions, etc., are to be completed by no later than 11:59 pm MST/MDT of the due date.

NOTE: Important CCCOnline semester dates (e.g., drop/withdraw/term end) appear on the CCCOnline calendar.

**MODULE 1**

**Reading/Assignments/Exams**  
Due Dates

- Online Classroom Meeting
- Discussion 1: Student Introductions
- Discussion 2: New Hire: Systems Analyst
- Assignment: Systems Analyst Roles, Skills and Job Opportunities
- Module Quiz
- Course Project: Idea Submission

**MODULE 2**

**Reading/Assignments/Exams**  
Due Dates

- Explorations 3 and 4
- Discussion: Components of the Systems Development Life Cycle
- Online Classroom Meeting
- Student Presentation: Project Management Knowledge Areas and similarities between Project Management and Systems Analysis
- Assignment: Systems, Software and Project Lifecycles
- Course Project: Project Introduction, Analysis of the Problem, Expectations
MODULE 3

Reading/Assignments/Exams
Explorations 5 and 6
Discussion: Planned vs. Adaptive Systems Development Approaches
Online Classroom Meeting
Student Presentation: Comparison between the tools and methods used in Systems Analysis
Assignment: Evaluation of the Agile Development Approach
Course Project: Design Approach, Use Case Diagram, Development Approach

Due Dates

MODULE 4

Reading/Assignments/Exams
Explorations 7 and 8
Discussion: Components of Databases and the differences between Relational and Object-Oriented Databases
Online Classroom Meeting
Student Presentation: Reasons Why Projects Fail
Assignment: Requirements, Risks, and Stakeholder Management
Course Project: Project Risks, Key Phases of Project Implementation, Testing

Due Dates

MODULE 5

Reading/Assignments/Exams
Explorations 9 and 10
Discussion: Post Implementation Activities
Online Classroom
Course Project: Project Plan, Project Activities, Project Submission

Due Dates

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