

CST212 - Systems Analysis and Design

(3 credit hours)

Course Syllabus

Course Description

This course covers the systems development life cycle (SDLC) using a case study-based approach. All phases of analysis, design, and implementation are covered using the top-down approach. CASE tools are used as a resource. This is a writing intensive course. This course will provide a foundation for taking a certification exam from the QAI Global Institute as a Certified Associate in Software Testing (CAST) and a Certified Associate in Software Quality (CASQ).

Course Learning Outcomes

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

1. Examine the systems development life cycle.
2. Identify information technology developments and trends that are important to an organization.
3. Describe the role of the systems analyst and their place in an organization.
4. Analyze concepts that are used in system design and project management.
5. Illustrate the steps to a completed system.
6. Identify and describe project documentation.

Prerequisite: CST 201

Required Textbook(s) and Resources

Tilley, S. (2020). *Systems analysis and design* (12th ed.). Cengage Learning. ISBN: 9780357300398.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your

learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET on Wednesdays**.
4. Additional assignments or follow-up discussion posts are due by **11:55 p.m. ET on Saturdays, and**
5. Major assignments and reflections are typically due by **11:55 p.m. ET on Sundays**.

Learning Activities

Assessments for this course consist of weekly forum discussions and case studies. Read the instructions carefully, especially for the case studies. Additionally, there will be two exams, at the end of Week 3 (mid-term) and Week 7 (Final).

Grading

The chart below identifies the individual contributions from each type of activity, per week.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Discussions Activity 1.1 (n/a) Activity 1.2 (30)	Discussions Activity 2.1 (30)	Discussions Activity 3.1 (30)	Discussions Activity 4.1 (30)	Discussions Activity 5.1 (30)	Discussions Activity 6.1 (30)	Discussions Activity 7.1 (30)	210
Assignments Activity 1.3 (60)	Assignments Activity 2.2 (90)	Assignments Activity 3.2 (60)	Assignments Activity 4.2 (90)	Assignments Activity 5.2 (90)	Assignments Activity 6.2 (70)	Assignments Activity 7.2 (60)	520
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
90	120	210	120	120	100	240	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | D: 60-69% | F: <60%

Course Outline and Weekly Checklist

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Start Here	<input type="checkbox"/> MON: Activity 1.1 (Forum): Meet Your Peers
Week 1: System Planning (Building the Business Case)	<input type="checkbox"/> WED: Activity 1.2 (Forum): Systems, Systems and More Systems <input type="checkbox"/> SAT: Forum Responses (Activities 1.1 and 1.2) <input type="checkbox"/> SUN: Activity 1.3 (Case Study): Hudson Kayak Adventures
Week 2: Developing Systems Through Project Management	<input type="checkbox"/> WED: Activity 2.1 (Forum): Comparing Development Methodologies <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 2.2 (Case Study): The Town of Eden Bay
Week 3: Data and Process Modeling	<input type="checkbox"/> WED: Activity 3.1 (Forum): DFD Models for Kitchen Gadget's Ordering Systems <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 3.2 (Case Study): College Driver Insurance <input type="checkbox"/> SUN: Activity 3.3: Midterm Exam (Chapters 1-5)
Week 4: Object Modeling and Development Strategies	<input type="checkbox"/> WED: Activity 4.1 (Forum): Object-Oriented Analysis <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 4.2 (Case Study): Campus Bikes
Week 5: User Interface Design and Data Design	<input type="checkbox"/> WED: Activity 5.1 (Forum): User Interface Design <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 5.2 (Case Study): Scenic Routes

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Week 6: System Architecture and System Implementation	<input type="checkbox"/> WED: Activity 6.1 (Forum): Assessing System Architectural Design as a System Analyst <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 6.2 (Case Study): White Diamond Glass
Week 7: System Maintenance, Control and Security	<input type="checkbox"/> WED: Activity 7.1 (Forum): System Change Request <input type="checkbox"/> THU: Activity 7.2 (Case Study): Personal Trainer, Inc. <input type="checkbox"/> SAT: Forum Responses <input type="checkbox"/> SUN: Activity 7.3: Final Exam (Chapters 6-12)

Tips for Success

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

For More Information:

Be sure to review the [Support, Policies, and Procedures](#) addendum.