

## **CST212 - Systems Analysis and Design**

### **(3 credit hours)**

### **Course Syllabus**

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### **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**

For this course we will use the following book:

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](#). You might consider registering for one of the library's many webinars on library research, source evaluation, copyright, and other topics, at the [Library Events - Upcoming Events](#) web page. For further assistance email a librarian, at: [library@tiffin.edu](mailto:library@tiffin.edu).

## 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
<b>Discussions</b> Activity 1.1 (n/a) Activity 1.2 (30)	<b>Discussions</b> Activity 2.1 (30)	<b>Discussions</b> Activity 3.1 (30)	<b>Discussions</b> Activity 4.1 (30)	<b>Discussions</b> Activity 5.1 (30)	<b>Discussions</b> Activity 6.1 (30)	<b>Discussions</b> Activity 7.1 (30)	<b>210</b>
<b>Assignments</b> Activity 1.3 (60)	<b>Assignments</b> Activity 2.2 (90)	<b>Assignments</b> Activity 3.2 (60)	<b>Assignments</b> Activity 4.2 (90)	<b>Assignments</b> Activity 5.2 (90)	<b>Assignments</b> Activity 6.2 (70)	<b>Assignments</b> Activity 7.2 (60)	<b>520</b>

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
--	--	Exam Activity 3.3 (120)	--	--	--	Exam Activity 7.3 (150)	<b>270</b>
<b>90</b>	<b>120</b>	<b>210</b>	<b>120</b>	<b>120</b>	<b>100</b>	<b>240</b>	<b>1000</b>

### Grading Scale

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	< 0%

Please see the [Academic Bulletin](#) for grade appeal information.

### 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:	<input type="checkbox"/> WED: Activity 3.1 (Forum): DFD Models for Kitchen Gadget's Ordering Systems

<b>Topic</b>	<b>Learning Activities</b> (Due by 11:55 p.m. ET on day designated)
Data and Process Modeling	<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
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.

## Your Instructor Will Expect You to:

- Thoroughly review orientation materials (Start Here) within the first 48 hours of the term.

- Monitor your TU email account **daily** for important updates and announcements.
- Take ownership of your learning experience and act in a proactive, self-directed manner. That means:
  - Fully participate in all learning activities.
  - Complete assignments as described in rubrics or other instructions.
  - Submit all work on time and in the specified format (e.g. APA format for citations).
  - Utilize and incorporate instructor provided feedback to improve your work.
  - Ask questions so you can better understand course material or assignments.
  - Use the highest standards of intellectual honesty and integrity. For more information, see the TU Library guide: [Digital Literacy: Netiquette and Internet Safety](#).
  - Treat others respectfully and demonstrate "netiquette" (online politeness and respectfulness) at all times. TU celebrates cultural uniqueness and expects all students to be considerate and thoughtful throughout their learning experiences.

### **You Should Expect Your Instructors to:**

- Post an introductory announcement/email at the beginning of each week to provide updates and help you prepare for the week's activities.
- Maintain an active and engaged presence in all course activities and throughout the course.
- Respond to your emailed questions within 48 hours, if not sooner.
- Clearly communicate any absences or expected non-participation due to extenuating circumstances. For example, "I will be traveling to attend a funeral this week and may not be able to respond to questions or participate in forums for a couple of days."
- When grading your work:
  - clearly indicate their grading approach (what they like to see in submitted work as well as what types of errors they tend to penalize more harshly),
  - thoroughly review and evaluate your submissions in a timely manner (in less than 5 days for most assignments), and
  - provide constructive feedback that indicates the strengths and weaknesses of your work and provides suggestions on how you can improve your performance on future assignments.
- Advocate for your success as a learner and help guide you toward successful completion of the course activities and most importantly, attainment of the course learning outcomes.

## Accommodations (Disability Services)

The Office of Disability Services supports the institutional commitment to diversity by providing educational opportunities for qualified individuals with disabilities through accessible programs and services in compliance with Section 504 of the Rehabilitation Act of 1973 and Title III of the Americans with Disabilities Act (ADA) of 1990. If you need reasonable accommodations due to a documented disability, contact the Office for Equity, Access, & Opportunity via email at [disabilityservices@tiffin.edu](mailto:disabilityservices@tiffin.edu) or by calling 419-448-3021.

## Technical Support

For Moodle support, either email [moodlesupport@tiffin.edu](mailto:moodlesupport@tiffin.edu) or call the 24/7 Technical Support Call Center at 855-664-1200 (3430, Option 2, from on-campus). For non-Moodle support, contact the Tiffin University ITS helpdesk at the number above or submit a [support ticket](#).

## Veterans

The Veteran and Military Resource Center assists veterans, active Military, and spouses of current service members in utilizing their education benefits. VMRC provides information regarding benefit processes and procedures, as well as support in navigating the transition from military to academic life by facilitating connections with the appropriate support services on campus. More information can be found on the Veteran and Military Resource Center website, at <http://www.tiffin.edu/va>.

## Additional Support

If you need to consult an academic advisor refer to TU's [Meet the Team](#) page. For information about TU's peer tutoring program see the Murphy Center's [Tutoring Policies and Procedures](#) page.

## Comments or Concerns

TU's online programs are designed to be student *driven*: to empower you with a voice and stake in your learning. Our courses feature multiple and varied ways that you can share feedback, and we invite you to become an active voice and help drive our improvement efforts. In addition to providing in-course feedback, we encourage you to submit questions or comments directly to the online team at [online@tiffin.edu](mailto:online@tiffin.edu).