

**CS 302 – Systems Analysis and Design**

**Credit Hours:** 3

**Scheduled hours per week**

Lecture: 3

Lab:

Other:

**Catalog Course Description:** Analysis and design of computer-based information systems, organization of information systems, techniques for conducting system studies, developing specifications and design, and documentation

**Pre-requisites:** CIT 130 must be passed with a grade of C or higher

**Co-requisites:**

**Course Learning Outcomes:**

Students should have an understanding of and be able to apply the following concepts:

- To understand and apply concepts and tools for developing IT and Software Engineering information systems

**Topics to be studied:**

<ul style="list-style-type: none"> <li>• Introduction to Systems Analysis and Design</li> <li>• Analyzing the Business Case</li> <li>• Managing Systems Projects</li> <li>• Requirements Modeling</li> <li>• Data and Process Modeling</li> <li>• Object Modeling</li> <li>• Development Strategies</li> </ul>	<ul style="list-style-type: none"> <li>• User Interface Design</li> <li>• Data Design</li> <li>• System Architecture</li> <li>• Managing Systems Implementation</li> <li>• Managing Systems Support and Security</li> </ul>
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**Relationship of Course to Program or Discipline Learning Outcomes:**

BAT-Software Engineering

✓	Ability to understand, plan, and execute good Project Management
✓	Ability to recognize and apply industry recognized code of ethics to various situations
	Ability to understand and apply Information Security concepts and best practices
✓	Ability to understand, plan, and implement good Systems Analysis and Software Engineering
	Ability to understand, plan, implement, and troubleshoot Mobile Applications and related technologies
	Ability to understand, plan, implement, and troubleshoot Advanced Web Design and Web Services technologies

For general education courses, a listing of the general education competencies that are met.)

<b>Relationship of Course to General Education Learning Outcomes:</b>	
<b>Composition and Rhetoric</b> Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	✓
<b>Science &amp; Technology</b> Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	✓
<b>Mathematics &amp; Quantitative Skills</b> Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	✓
<b>Society, Diversity, &amp; Connections</b> Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
<b>Human Inquiry &amp; the Past</b> Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	✓
<b>The Arts &amp; Creativity</b> Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
<b>5/3/2016</b>	

**Special requirements of the course:**

You will need a computer with an Internet connection

**Additional information:**

**Prepared by:** Charles Almond

**Date:** 10/20/2017