Cerro Coso College

Course Outline of Record Report

10/12/2021

CSCIC195 : Introduction to Systems Analysis and Design

General Information

Author:	-
Course Code (CB01) :	CSCIC195
Course Title (CB02) :	Introduction to Systems Analysis and Design
Department:	Business Information Technolog
Proposal Start:	Fall 2013
TOP Code (CB03) :	(0708.10) Computer Networking
SAM Code (CB09) :	Advanced Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000574153
Curriculum Committee Approval Date:	04/01/2016
Board of Trustees Approval Date:	05/05/2016
External Review Approval Date:	06/11/2016
Course Description:	The course presents a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution in particular, in-house development, development from third-party providers, or purchased commercial-off-the-shelf packages.
Submission Type:	New Course
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Computer Science
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications) • Computer Service Technology
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade Methods

Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes
0

Course Prior To College Level (CB21)
Not applicable.

Rationale For Credit By Exam/Challenge
No value

Retake Policy Description
Type:|Non-Repeatable Credit

Allow Students To Audit Course

Course Support Course Status (CB26)
No value

Associated Programs

Course is part of a program (CB24)

Associated Program	Award Type	Active
Cyber Security Technology	A.S. Degree Major	Spring 2018
Cyber Security Technician	Certificate of Achievement	Spring 2018

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours:

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	72
Total Course Out-of-Class Hours	90
Total Student Learning Hours	162
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Course Non Credit Category (CB22)

Non-Credit Characteristic

Credit - Degree Applicable	Credit Course.	No Value

Course Classification Status (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	2.5	5
Laboratory Hours	1.5	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	0
Activity	0
Total	72
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Activity	0
Total	90

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours: - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

CSCIC146 - Introduction to Information Systems Security

Students need an understanding of network security and risk management including processes, communications and the application of policies and procedures for securing computers and networks. This material is covered in the CSCI C146 course.

AND

Advisory

CSCIC143 - Computer Network Fundamentals

Students need an understanding of network security and risk management including processes, communications and the application of policies and procedures for securing computers and networks. This material is covered in the CSCI C146 course.

AND

Prerequisite

CSCIC101 - Introduction to Computer Information Systems

Students need to be able to identify hardware components of a computer system, understand the basics of operating systems and application software, install software, understand what memory is, how to zip and unzip files, how to save and find files and understand the basics of network topology. This material is covered in the CSCI C101 course.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Outside reading
Rationale	Textbook and Electronic Readings
Methods of Instruction	Other
Rationale	Other Methods: A. Textbook and Electronic Readings B. Pre-recorded Training Videos C. Simulation ScenariosOther Methods: A. Textbook and Electronic Readings B. Pre-recorded Training Videos C. Simulation ScenariosDemonstration
Methods of Instruction	Project-based learning
Rationale	No value
Methods of Instruction	Demonstration
Rationale	No value
Methods of Instruction	Discussion
Rationale	No value
Methods of Instruction	Laboratory
Rationale	No value
Methods of Instruction	Lecture
Rationale	No value
Methods of Instruction	Audiovisual
Rationale	B. Pre-recorded Training Videos,. Simulation Scenarios

Assignments

A. Chapter reading (Example: Reading the assigned chapters from the textbook based on the topics for the week).
B. Research and analysis projects (Example: Analyze a problem in a scenario and develop a plan for its remediation).

Methods of Evaluation	Rationale
Other	Comprehensive Exam: A comprehensive exam in a will evaluate a student's comprehension of the text and preparedness to design and implement technology solutions in an enterprise environment.
Participation	Discussions: Students will participate in discussions to critically explore concepts and compare elements of the text. For example, discuss common problems encountered during technology

	project execution.
Tests	Objective Exams: Objective exams will evaluate the student's comprehension of text material.
Homework	Written Assignments: Activities will reinforce the practical application of theories presented in the text. These assignments will also provide insight and training into real world tasks for Information Technology (IT) Professionals.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Shelly, G. B., Cashman, T. J. & Rosenblatt, H. J. (2012) Systems Analysis and Design, 5, Cengage			

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Propose Information Technology (IT)-based solutions for business needs, including planning for prioritized implementation using formal project management methods. Expected SLO Performance: 70.0

Design solutions to fill a business need which addresses systematic acquisition, system development, and the business' resulting productive change. Expected SLO Performance: 70.0

Use Computer-Aided Software Engineering tools for use in process and data modeling. Expected SLO Performance: 70.0

Incorporate principles leading to high-level logical system characteristics (security, user interface design and experience, design of data and information requirements) while addressing potential ethical, cultural, and legal issues involved. Expected SLO Performance: 70.0

Consider the requirements and challenges of solution implementation to include alternative packaged solutions. Expected SLO Performance: 70.0

Outline

Course Outline

1. Introduction to System Developments
    a. Identification of opportunities for IT-enabled organizational change
2. Business process management
3. Systems Analysis Activities
    a. Analysis of business requirements
    b. Analysis and specification of system requirements
4. System Development and Project Management
    a. Structuring of Information Technology (IT)-based opportunities into projects
    b. Project specification
    c. Project prioritization
    d. Analysis of project feasibility
    e. Fundamentals of Information Systems (IS) project management in the global context
5. Using globally distributed communication and collaboration platforms
6. Methods for comparing systems implementation approaches
7. Design and Deployment Concepts
    a. Organizational implementation of a new information system
    b. Different approaches to implementing information systems to support business requirements
    c. Specifying implementation alternatives for a specific system
    d. Impact of implementation alternatives on system requirements specification
8. Different approaches to systems analysis & design: structured Software Development Life Cycle (SDLC), unified process/Unified Modeling Language (UML), agile methods

Lab Outline

Labs will follow the Systems Analysis and Design timelines and will utilize a theoretical business throughout the semester. Lab requirements include but are not limited to:
1.Establishing a business profile
2.Managing a project timeline
3.Conducting a business analysis
4.Generating system requirements
5.Developing a logical model
6.Presenting a system view
7.Evaluating development strategies
8.Initial system design
9.Prototyping the system design
10.Selecting system architecture
11.Implementing your system
12.System sustainment critical thinking

Delivery Methods and Distance Education

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings (“Hybrid”) -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

Face 2 Face
Online
Hybrid
Interactive

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section?

All assignments in distance education courses (online, hybrid and iTV) of CSCI C195 are of the same rigor as those in the on-ground course, except that students in purely online sections will submit all of their assignments virtually.

Effective Student-Instructor Contact: Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Moodle Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV -Interactive Video -Other (specify)

contact_moodle_forums
contact_moodle_message
contact_email
contact_face2face
contact_discussion
contact_itv

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

No Value

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

s508_itv
s508_moodle
s508_publisher

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

No Value