Glendale College
Course Outline of Record Report
01/31/2025

CS/IS180 : Systems Analysis

General Information

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Attachments:	DE Addendum_CSIS_180 COR_10_20_2020 CoDE_05_23_2023.pdf DE Addendum_CS:IS_180 (CE)_COR_10:1:2020_CoDE_2:27:24.pdf
Course Code (CB01) :	CS/IS180
Course Title (CB02) :	Systems Analysis
Department:	CSIS
Proposal Start:	Fall 2024
TOP Code (CB03) :	(0707.30) Computer Systems Analysis
CIP Code:	(11.0501) Computer Systems Analysis/Analyst.
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000513831
Curriculum Committee Approval Date:	05/08/2024
Board of Trustees Approval Date:	06/18/2024
Last Cyclical Review Date:	05/08/2024
Course Description and Course Note:	CS/IS 180 presents a systematic methodology for analyzing a business problem or opportunity. Determining how computer-based technologies can address business needs, students will learn how to develop business requirements for implementing technology solutions by assessing the type of software implementation such as in-house development, third-party providers, or procurement of off-the-shelf packages.
Justification:	Mandatory Revision
Academic Career:	• Credit
Mode of Delivery:	No value
Author:	No value
Course Family:	No value

Academic Senate Discipline

Primary Discipline:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

General Education and C-ID

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

C-ID	Area	Status	Approval Date	Comparable Course
ITIS	Information Technology and Information Systems	Approved	02/16/2016	ITIS 140 - Introduction to Systems Analysis and Design

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	0	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Studio	0
Total	54
Course Out-of-Class Hours	
Lecture	108
Laboratory	0
Studio	0
Total	108

Time Commitment Notes for Students

No value

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

CS/IS101 - Introduction To Computer and Information Systems

Objectives

- Describe the Internet and Internet services; describe the evolution of e-business and understand how to do business on the Internet; identify Web development tool and authoring systems; create a simple Web page using Hypertext Markup Language (HTML).
- Demonstrate the importance of the technology infrastructure in an organization; identify major hardware components of a computer system; explain how to evaluate hardware components; compare open vs. proprietary platforms.
- Describe distinctions between system software and application software; explain common functions of system software; identify types of application software; understand how to evaluate software when planning a system; compare open vs. proprietary software.
- Describe ethical concerns associated with information systems including privacy, access, reliability, legal, ethical, and accuracy; identify types of computer crime; select, access, and use appropriate sources.

Entry Standards

Entry Standards	Description
No value	No value

Course Limitations

Cross Listed or Equivalent Course	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	
Methods of Instruction	Lecture
Methods of Instruction	Multimedia
Methods of Instruction	Demonstrations
Methods of Instruction	Presentations

Out of Class Assignments

Problem-solving assignments (create software development designs, documentation, and plans for a customer project)
Project (Phase-oriented deliverables), such as: Use Cases, Use Case Diagrams, Class Diagrams, Sequence Diagrams, and prototype system

Methods of Evaluation	Rationale
Exam/Quiz/Test	Quizzes
Project/Portfolio	Hands-on projects
Exam/Quiz/Test	Final examination
Exam/Quiz/Test	Midterm examinations
Presentation (group or individual)	In-class presentation

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Dennis, Wixom, and Roth	Systems Analysis and Design	Wiley	October 20, 2021	9781119803782

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Gather customer requirements for a software project.

Create software development designs, documentation, and plans for a customer project.

Create prototypes to refine the customer's software project.

Present the results of a software project to student's peers.

SLOs

Initiate, specify, and prioritize information systems projects and determine various aspects of feasibility of these projects.

Expected Outcome Performance: 70.0

ILOs Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
CSIS Information Technology Certificate	Demonstrate installing, configuring and maintaining computer and mobile devices, including diagnosing, resolving and documenting common hardware and software.

CSIS Information Technology - A.S. Degree Major	Demonstrate installing, configuring, and maintaining computer and mobile devices, including diagnosing, resolving, and documenting common hardware and software.
CSIS Computer Science - Certificate	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
CSIS Computer Science - A.S. Degree Major	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
ILOs General Education	apply techniques of analysis and critical thinking to critique real world and theoretical topics and issues
CSIS Computer Software Technician	demonstrate the ability to independently create, save, modify and print a document using a word processing program and appropriate assistive technology
CSIS Web Development - A.S. Degree Major	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.
CSIS Web Development - Certificate	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.

Define problems, opportunities, or mandates that initiate projects. Expected Outcome Performance: 70.0

ILOs Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
	Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.
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ILOs General Education	communicate clearly and logically in writing, speech, and other media as appropriate
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Manage information systems projects using formal project management methods. Expected Outcome Performance: 70.0

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Articulate the types of business needs that can be addressed using information technology-based solutions. Expected Outcome Performance: 70.0

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Course Content

Lecture Content

The Systems Analyst and Information Systems Development (4 hours)
- The Systems Development Life Cycle
- Project Identification and Initiation
- Feasibility Analysis

Project Selection and Management (4 hours)
- Creating the Project Plan
- Staffing the Project
- Managing and Controlling the Project

Requirements Determination (4 hours)
- The Analysis Phase
- Requirements Determination

Requirements Analysis Strategies

Understanding Processes with Use Cases and Process Models (4 hours)
- Use Case Formats and Elements
- Data Flow Diagrams

Data Modeling (4 hours)
- The Entity Relationship Diagram
- Creating an Entity Relationship Diagram
- Validating an Entity Relationship Diagram

System Design (4 hours)
- Transition from Requirements to Design
- System Acquisition Strategies
- Selecting an Acquisition Strategy

Architecture Design (4 hours)
- Elements of an Architecture Design
- Hardware and Software Specification

User Interface Design (4 hours)
- Principles for User Interface Design
- User Interface Design Process

Program Design (5 hours)
- Moving from Logical to Physical Process Models
- Structure Chart
- Program Specification

Data Storage Design (5 hours)
- Data Storage Formats
- Moving from Logical to Physical Data Models
- Optimizing Data Storage

Implementation (4 hours)
- Managing the Programming Process
- Developing Documentation

Transition Planning (4 hours)
- The Migration Plan
- Post implementation Activities

Agile Development Methods (4 hours)
- Evolution of Agile Development
- Comparing the SDLC with Agile Methodologies

Total hours: 54