Course # (BCIS 2390)

TRINITY VALLEY COMMUNITY COLLEGE
ADMINISTRATIVE-MASTER SYLLABUS

The Administrative- Master Syllabus is an administrative tool; it is **not intended to be distributed to students.** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of TVCC, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction. The Administrative-Master Syllabus will demonstrate that there is consistency and comparability in course offerings.

Course Title

Systems Analysis and Design

Course Prefix and Number

BCIS 2390

Department – Division

Computer Science

Course Type – select from one of the following categories.

☒ - **Academic General Education Course** (from ACGM – but not in TVCC Core)

☐ - **Academic TVCC Core Course**

- **WECM Courses**

Semester Credit Hours: Lecture Hours: Lab/other hours

Semester Credit Hours	Lecture Hours	Lab/Other* Hours
3	2	4

Other hours include practicum, clinical or other types of non-lecture instruction. *If other, please specify: _____

Course Catalog Description

This course focuses on the analysis of existing business systems and designing computerized business systems. The flow of data within and through the system is emphasized. The student will complete case studies of selected business problems.

Prerequisites/co requisites

Either COSC 1301, BCIS 1305 or ITSC 1301 or approval of instructor

Topical Outline

Systems analysis and design is concerned with the broad aspects of relating the computer system to the total information needs of the organization. This course focuses on the analysis of existing business systems and designing computerized business systems. The flow of data within and through the system is emphasized. This is a cumulative course, designed to give the student a better understanding of the information system: its mission, its users, modern capabilities, and components. The student will become familiar with system design considerations and methods of analyzing existing systems. The student will complete case studies of selected business problems.

Course Learning Outcomes

The student will acquire an understanding of the following course learning outcomes:

- An understanding of an information system and its components.
- An understanding of the system development life cycle.
- An understanding of various types of information systems.
- An understanding of the purpose of a mission statement.
- An understanding of different types of feasibilities: operational feasibility, technical feasibility, economic feasibility, and schedule feasibility.
- An understanding of the steps involved in a preliminary investigation and the end product of an investigation.
- An understanding of the system analysis phase activities and the end product of the phase.
- An understanding of system requirements, including outputs, inputs, processes, performance, and controls.
- An understanding of fact-finding techniques, including interviews, documentation review, observation, questionnaires, sampling, and research.
- An understanding of effective documentation methods to use during system development.
- An understanding of the relationship between logical and physical models.
- An understanding of data and process modeling concepts and tools including data flow diagrams, a data dictionary, and process descriptions.
- An understanding of the transition from systems analysis to systems design.
- An understanding of the contents of the system requirements document.

- An understanding of the concept of user interface design and human-computer interaction, including the basic principles of user-center design.
- An understanding of output design issues and various types of output.
- An understanding of input design concepts, techniques, and methods.
- An understanding of data entry screen design guidelines.
- An understanding of database systems and define the components of a database management system (DBMS).
- An understanding of servers, server-based processing, clients, and client-based processing.
- An understanding of network topology, including hierarchical, star, bus, and ring network models.
- An understanding of the main steps in system installation and evaluation.
- An understanding of the systems operation, support, and security phase relates to the rest of the system development process.
- An understanding of the guidelines for successful communications.
- An understanding of the organization of written reports that are required during the SDLC and the contents of each report section.

Relationship to General Education Outcomes – In addition to the core competencies, Trinity Valley Community College has established ten general education goals which specify knowledge and skills that students should gain from completing courses in the various component areas of the core curriculum. Information regarding curriculum and assessment as a means for the improvement of student learning through the general education component. (Select all that apply.)

Mark with an "X"	General Education Outcome
	A. To communicate clearly and effectively in both oral and written English.
	B. To improve reading skills focused on comprehending, analyzing, interpreting, and evaluating printed materials.
	C. To understand mathematical information and utilize mathematical skills.
	D. To demonstrate qualitative and quantitative critical thinking skills.
	E. To understand and appreciate cultural and ethnic diversity.
X	F. To utilize computer based technology in accessing information, solving problems, and communicating.
	G. To recognize and evaluate artistic achievements in the visual and performing arts.
	H. To improve basic understanding of political, economic, and social systems.
	I. To demonstrate knowledge of the physical universe and living systems.
	J. To develop skills and strategies to become an engaged learner.

Required Text(s)

Systems Analysis & Design, 7th Edition. Shelly/Cashman/Rosenblatt, Course Technology, 2008. ISBN: 1-4239-1222-5

Optional Text(s)

none

Material/Technology to be supplied by the student.

All students must have access to the internet, an e-mail address, and be competent in using a computer to navigate the internet. Students will need access to Microsoft WORD for submitting case studies. Students will need access to a computer with a CD player. The textbook comes with a CD including study tools, lecture notes, reviews, and additional web sites for further reference. Student will need a removable USB disk for storage of data.

Course Requirements/Grading System – describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course; not intended to restrict the individual nature by which each faculty member who teaches the course determines course requirements and final student performance, but should offer consistency within reason for all sections taught for those departments without a standardized format.

Your grade will be determined by performance on exams, laboratory assignments, special projects, and/or research papers. Your instructor prepares the individual criteria in the respect to the departmental syllabus.

Approvals – the contents of this document have been reviewed and are found to be accurate.

Prepared by Pat Salinas	Signature *Pat Salinas*	Date 2/27/2008
Department Head	Signature	Date
Division Chair	Signature	Date
Vice President	Signature	Date