

CIS 66.2A Course Outline as of Spring 2002**CATALOG INFORMATION**

Dept and Nbr: CIS 66.2A Title: PROJECT MGMT SOFTWARE

Full Title: Using Software for Managing a Project

Last Reviewed: 12/10/2001

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.50	Lecture Scheduled	2.00	8	Lecture Scheduled	16.00
Minimum	1.50	Lab Scheduled	2.00	8	Lab Scheduled	16.00
		Contact DHR	1.50		Contact DHR	12.00
		Contact Total	5.50		Contact Total	44.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 32.00

Total Student Learning Hours: 76.00

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

This class will cover the basic principles of Project Management for the Information Technology Industry (most of these principles are also applicable in other industries including the Construction Industry). The student will learn how to use Project Management software to create a time based Project Plan, resource load the plan, apply cost to the plan, and update the plan. The student will also learn how to use the plan as a dynamic model to gather earned value metrics for the Project and to perform "What-If" scenarios to determine where future problems may exist.

Prerequisites/Corequisites:

Course Completion of CS 101A (or CIS 101A) OR Course Completion of CS 105A (or CIS 105A or CIS 81.5A or BDP 81.5A) OR Course Completion of CS 5 (or CIS 5 or BDP 5 or BDP 51)

Recommended Preparation:

Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:**Schedule of Classes Information:**

Description: Students will use personal computer project management software, to plan,

organize, staff, control, and direct the resources of an organization in pursuit of a one-time specific goal. (Grade or P/NP)

Prerequisites/Corequisites: Course Completion of CS 101A (or CIS 101A) OR Course Completion of CS 105A (or CIS 105A or CIS 81.5A or BDP 81.5A) OR Course Completion of CS 5 (or CIS 5 or BDP 5 or BDP 51)

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer:	Transferable	Effective: Spring 2002	Inactive: Summer 2010
UC Transfer:		Effective:	Inactive:

CID:

Certificate/Major Applicable:

Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:

Students will:

1. Analyze a paper-based plan and take the appropriate steps to convert it to a computer-based project.
2. Use project management software, appropriately assign resources to the plan.
3. Differentiate the Project into Master plan with interim milestones.
4. Work with a group applying software features to the various steps in the process of completing a project.

Topics and Scope:

1. Definitions
 - a. Project management
 - b. What is a project - program - product
 - c. A Project Plan and Plan Hierarchy
 - d. Planning Cube
 - e. Schedule
 - f. Baseline
 - g. Scope and Scope creep
 - h. Resources and resource pools
 - i. Costing
 - j. Risk

- k. Planning process grid
- l. Project management tools
 - 1) TurboProject
 - 2) ARTEMIS
 - 3) Primavera
 - 4) Timeline
2. Creating a basic Temporal Project Plan or Schedule
 - a. Activities
 - b. Relationships
 - c. Constraints
 - d. Leads & Lags
 - e. Milestones
 - f. Duration's
 - g. WBS-Work Breakdown Structure
3. Working with a Project Management Tool
 - a. Finding the basics
 - b. How to set up the timeline
 - c. Network View or PERT Chart View vs Gantt View
 - d. Working with Calendars
 - e. Using Code fields
 - f. Dealing with Constraints
 - g. Forward Pass and Backwards Pass
 - h. Early Schedule and Late Schedule
 - i. Float
 - j. Interim Milestones
 - k. Calendar
4. Resource Loading a Project Plan and Updating
 - a. Simple Resources
 - 1) People
 - 2) Facilities
 - 3) Equipment
 - 4) Materials
 - b. Resource Pools
 - c. Partial Resource Loading
 - d. Loading a since resource across multiple activities
 - e. Getting Resource Information our of the Model
 - f. Driving Resources
 - g. Resource Leveling
5. Cost Loading a Project Plan
 - a. Cost profiles
 - b. Projecting cost for future time windows
 - c. Projecting cost for uncertain events
6. Stating or Updating a Project Plan
 - a. Basic Setup of defaults
 - b. The Baseline-How to set and maintain it
 - c. Time based status
 - d. Entered Value
7. Working with Sub-Projects
 - a. Interim Milestones
 - b. Working with need dates
 - c. Working with Drop Dead Dates
 - d. Distribute and Integrate the Master Schedule

8. Risk

- a. What is Risk and how to management it
- b. Using your plan to mitigate Risk
- c. Best Case-Worse Case Analysis
- d. PERT (Program Evaluation and Review Technique) Analysis
- e. Monte Carlo

Assignment:

1. Form groups of 3 to 4 people and devise a concept for an 80 to 200 activity Program.
2. Each student will develop a WBS which outlines a proposed future project with between 20 to 50 activities and at least 5 breakdowns from parent WBS levels. This will represent this student's portion of the group effort.
3. Convert their WBS to a temporal plan using GigaProject or TurboProject. This will include the estimation of durations, use of Milestones and proper use of relationships between activities.
4. Resource load the plan with four types of resource: Human Resources, Facilities, Equipment, and Materials. Every activity from Step 3 will be allocated resources. The student will also view the resource profile and identify over-allocations and correct them using one of 3 methods.
5. Apply costs to the resources in step 4. All resources will receive cost information. Establish a Project Baseline. Update the current activities in the project. Move the Time Now line forward and set up a reporting mechanism to show Earned Value metrics for the project.
6. All the students in the group will now bring their projects together into a Master project using interim milestones. In this step they will address concerns involving shared resources and working with external delivery and receipt dates.
7. Use the "What-If" capability of the Project model to identify potential risks in the projects future. The use of a "Best Case - Worst Case" analysis to quantify Risk and High level overview of some other Risk management techniques.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, Written portions of the plan

Writing
10 - 20%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems

Problem solving
40 - 60%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations
0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, Short answer

Exams
30 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

1. "Information Project Management", by Kathy Schwalbe - Course Technology, 2000