

Colorado CTE Course – Scope and Sequence

Course Name	Project Management in Organizations		Course Details	.5 Semester long
			Course = 0.50 Carnegie Unit Credit	
Course Description	Investigates the concepts and applicability of project management within organizations. It examines the unique nature of the project management structure including its emphasis on integrated decision making throughout a lifecycle of a product from the planning, implementing, monitoring, and controlling phases. Emphasis is on the processes of initiating, planning, executing, controlling, and closing activities of project management.			
Note:	This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all course competencies are covered. This course aligns to the CCNS (MAN241). Please contact your local community college partner for credit options. May also align with CAPM industry certification			
SCED Identification #	12099	Schedule calculation based on 60 calendar days of a 90-day semester. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.		

All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at <https://www.cde.state.co.us/standardsandinstruction/essentialskills>

COURSE COMPETENCIES AND OUTCOMES

COMPETENCIES

The competencies you will demonstrate in this course are as follows:

- A. Define a project and its elements.
- B. Produce the components of a project plan, i.e., goals, preliminary project plan, Work Breakdown Structure (WBS), activity schedule with necessary precedence/successor relationships and network diagrams for a project.
- C. Illustrate the creation of a project schedule.
- D. Discuss the development and use of network diagram techniques.
- E. Construct a budget.
- F. Explain how to control project costs.
- G. Explain how to calculate a project's earned value and its significance to the project team.
- H. Analyze project quality using metrics and control tools by ensuring that the end deliverables fulfill the project requirements and scope of work.
- I. Illustrate the concept of different types of risks, their uncertainties, and associated mitigation strategies to minimize the overall risk uncertainties



J. Define project procurement standards and its association with the different types of contracts.

The module outcomes that will permit you to demonstrate course competencies

MODULE 1

Outcomes & Competencies

1. Identify the five phases of the PMI (Project Management Institute) project life cycle. A
2. Summarize the activities that take place during each phase. A
3. Create a preliminary project schedule. C
4. Describe the components of the project charter and purpose of each component. B
5. Create a Work Breakdown Structure for a project during project planning phase. B

MODULE 2

Outcomes & Competencies

1. State the reasons for establishing a project baseline. C
2. Identify and sequence project activities that will meet a project's objectives. C
3. Employ estimating techniques to calculate task duration. C
4. Discuss the use of the network diagram to calculate the critical path for a project. D
5. Create a network diagram to calculate the length of the critical path(s) in a project. D

MODULE 3

Outcomes & Competencies

- 1 Use the work breakdown structure to estimate project cost. E
- 2 Apply both analogous and parametric estimating techniques to determine project budgets. E
- 3 Prepare a project budget for contingencies. F
- 4 Discuss the relationship between time management and project scope and cost management. F

MODULE 4

Outcomes & Competencies

1. State the meanings of the basic measurements of project progress - Budgeted Cost of Work Scheduled (BCWS), Budgeted Cost of Work Performed (BCWP), Actual Cost of Work Scheduled (ACWS), Actual Cost of Work Performed (ACWP). G
2. Apply the tools of the Earned Value Method to forecast project end date and cost. G



3. Apply Earned Value formulae to calculate project performance. G
4. Apply a requirements traceability matrix to ensure project requirements are met. H
5. Create quality standards for a project. H
6. Determine how to measure the quality achieved by a project. H

MODULE 5

Outcomes & Competencies

1. Identify the purpose and components of the risk management plan. I
2. Build a risk register to categorize and quantify the perceived risks to a project. I
3. State the different types of risk and the strategies to mitigate them. I
4. Build a request for proposal (RFP) for a software system. J
5. Determine the best type of contract to employ in various business situations. J

*Module outcomes taken from CCOnline.org

CTSO Integration

DECA: Project Management Events

FBLA: Any group project