Western Technical College

10104152  Project Management Principles

Course Outcome Summary

Course Information

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This course is designed to introduce students to the importance of project</td>
<td></td>
</tr>
<tr>
<td>management in business environments. Project management is the discipline of</td>
<td></td>
</tr>
<tr>
<td>planning and organizing resources to bring about the successful completion</td>
<td></td>
</tr>
<tr>
<td>of specific goals while managing constraints of scope, costs and time.</td>
<td></td>
</tr>
<tr>
<td>Students will explore the process of project management and will learn the</td>
<td></td>
</tr>
<tr>
<td>critical steps to: Identify needs and turn them into a project proposal;</td>
<td></td>
</tr>
<tr>
<td>Create a project plan (using work breakdown structures, activities</td>
<td></td>
</tr>
<tr>
<td>definitions and relationships); Create a project schedule (using durations</td>
<td></td>
</tr>
<tr>
<td>and early/late start and finish dates); Determine activities within the</td>
<td></td>
</tr>
<tr>
<td>critical path; Create a project budget; Monitor the progress of the project</td>
<td></td>
</tr>
<tr>
<td>using Gantt charts; Modify the plan as variations develop within the project.</td>
<td></td>
</tr>
<tr>
<td>They will then take a project of their choice and complete it by applying</td>
<td></td>
</tr>
<tr>
<td>these steps. Learners will research and participate in leadership, team</td>
<td></td>
</tr>
<tr>
<td>building and communication activities to allow for successful teamwork in</td>
<td></td>
</tr>
<tr>
<td>completing the project. Self-evaluations will be used to assess the</td>
<td></td>
</tr>
<tr>
<td>progress in these areas. Project Management software will also be explored.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Career Cluster</th>
<th>Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Level</td>
<td>Associate Degree Courses</td>
</tr>
<tr>
<td>Total Credits</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>54</td>
</tr>
</tbody>
</table>

Textbooks


Learner Supplies

Report supplies such as a three-ring binder, dividers, printing color and B&W. **Vendor:** To be discussed in class. Required.

Success Abilities

1. Apply mathematical concepts.
2. Demonstrate ability to think critically.
3. Demonstrate ability to value self and work ethically with others in a diverse population.
4. Transfer social and natural science theories into practical applications.
5. Use effective communication skills.
6. Use technology effectively.

**Program Outcomes**
1. Develop strategies to anticipate and satisfy market needs.
2. Promote products, services, images, and/or ideas to achieve a desired outcome.

**Course Competencies**

1. **Explore project management.**
   
   **Assessment Strategies**
   1.1. Written Product

   **Criteria**
   
   You will know you are successful when:
   
   1.1. you identify the phases of the project life cycle.
   1.2. you explain the purpose of each phase of the project life cycle.
   1.3. you compare the life cycle theory to real life experience/case study.
   1.4. you explain why theory and real life experience/case study may differ.
   1.5. you identify the roles of the people involved in the project/case study.
   1.6. you explain the responsibilities of the roles.

   **Learning Objectives**
   
   1.a. Describe the terms associated with projects, project management, and project managers.
   1.b. Explore various examples of projects that can be managed.
   1.c. State the benefits of project management.
   1.d. Identify roles of stakeholders of a project.
   1.e. Investigate responsibilities of roles.
   1.f. Examine phases of the project life cycle.

2. **Develop team building and leadership skills.**
   
   **Assessment Strategies**
   2.1. Reflection

   **Criteria**
   
   You will know you are successful when:
   
   2.1. you describe what went well in the project.
   2.2. you describe what did not go well in the project.
   2.3. you explain what conflict resolution techniques were used.
   2.4. you explain how this project reinforced the concepts you learned in class.
   2.5. you describe how you grew personally as a team member.
   2.6. you describe how you grew personally as a team leader.
   2.7. you describe how you grew personally as a contributing member for the greater good of the community.

   **Learning Objectives**
   
   2.a. Define the concept of teamwork and its importance to project management.
   2.b. Explore team collaboration methods.
   2.c. Explore stages of team development and growth.
   2.d. Practice effective team member behavior.
   2.e. Practice effective leadership skills.
   2.f. Examine conflict resolution techniques.
   2.g. Develop a team contract.
3. **Investigate project viability.**

   **Assessment Strategies**
   3.1. Oral Presentation

   **Criteria**

   *You will know you are successful when:*

   3.1. you explain the brainstorming process that led you to project selection.
   3.2. you explain the NUFF (New, Useful, Feasible, and Fun) results.
   3.3. you summarize your project selection.
   3.4. you explain anticipated costs and timeline.

   **Learning Objectives**

   3.a. Explore brainstorming techniques.
   3.b. Evaluate potential projects.
   3.c. Examine benefits and consequences of project implementation.
   3.e. Choose best project.

4. **Prepare a project charter.**

   **Assessment Strategies**

   4.1. Written Product

   **Criteria**

   *You will know you are successful when:*

   4.1. you describe the purpose, problem, and opportunity of the project.
   4.2. you describe the scope of the project.
   4.3. you identify objectives.
   4.4. you define deliverables.
   4.5. you outline success criteria.
   4.6. you identify potential milestone dates.
   4.7. you identify assumptions and risks.
   4.8. you outline possible constraints.
   4.9. you determine appropriate approvals.

   **Learning Objectives**

   4.a. Examine components of a project charter.
   4.b. Examine the importance of a project charter.
   4.c. Compare various forms of project charter terms and formats.

5. **Break down a project into sub-components.**

   **Assessment Strategies**

   5.1. Drawing/Illustration
   5.2. Product

   **Criteria**

   *You will know you are successful when:*

   5.1. your tree structure uses a parent-child form.
   5.2. your tree structure grouping is logical.
   5.3. your tree structure utilizes the number sequencing structure.
   5.4. you assign responsibility to the lowest level work packages.
   5.5. you design a RAM (Responsibility Assignment Matrix) using the instructor-prepared format.
   5.6. your RAM includes all work packages from the work breakdown structure.

   **Learning Objectives**

   5.a. Explore methods to identify responsibilities within a project.
   5.b. Explore the concept of a work package.
   5.c. Outline the approach to creating a Work Breakdown Structure.
   5.d. Practice breaking down a project into work packages. (“chunks” of work)
   5.e. Explore utilizing a tree structure to map out sub-components of a project.
5.f. Examine components of a RAM (Responsibility Assignment Matrix).

6. **Evaluate project risks.**

   **Assessment Strategies**
   6.1. Written Product

   **Criteria**

   *You will know you are successful when:*
   6.1. you identify a minimum of four potential risks.
   6.2. you explain the likelihood of occurrence for each risk.
   6.3. you describe the potential degree of impact for each risk.
   6.4. you identify the trigger of each potential risk.
   6.5. you identify the person responsible for risk management of each risk.
   6.6. you determine a contingency plan for each risk.
   6.7. you determine a plan to mitigate each risk.

   **Learning Objectives**
   6.a. Examine the importance of identifying potential risks.
   6.b. Explore potential risks to project objectives.
   6.c. Compare risk mitigation and contingency planning.
   6.e. Choose appropriate risk management plan.
   6.f. Explore roles/responsibilities for risk management.

7. **Outline and sequence activities.**

   **Assessment Strategies**
   7.1. Product
   7.2. Drawing/Illustration

   **Criteria**

   *You will know you are successful when:*
   7.1. you begin list of activities with a verb.
   7.2. you list activities that are distinct.
   7.3. you list activities that have a duration.
   7.4. you list activities that would be completed by a person.
   7.5. you identify the work package associated with each activity.
   7.6. you identify the immediate predecessor for each activity.
   7.7. you use a network diagramming tool for sequencing.
   7.8. you list all activities for all work packages.
   7.9. you connect activities by arrows to indicate the predecessor sequence.

   **Learning Objectives**
   7.a. Explore activity characteristics: distinct, duration, action, and responsibility of a person.
   7.b. Discuss possible activities for different types of work packages.
   7.c. Investigate how project activities relate to one another/predecessors.
   7.d. Examine how activities can be sequenced.
   7.e. Explore various tools used for sequencing a project plan.

8. **Outline a project schedule.**

   **Assessment Strategies**
   8.1. Product

   **Criteria**

   *You will know you are successful when:*
   8.1. you determine the duration of each activity.
   8.2. you determine milestone dates.
   8.3. you determine calendar dates for each activity.
   8.4. you list assigned resources for each activity.
   8.5. you determine the role of team members throughout project implementation.
Learning Objectives
8.a. Determine the resources required for each activity.
8.b. Determine the duration of each activity.
8.c. Explore scheduling early start/finish dates.
8.d. Explore scheduling late start/finish dates.
8.e. Explore the scheduling concept of slack.
8.f. Explore the importance of critical path activities.
8.g. Examine milestone dates.
8.h. Explore assigning calendar dates to activities.

9. **Prepare a project budget.**

Assessment Strategies
9.1. Product

Criteria

*You will know you are successful when:*
9.1. your budget includes all line items necessary to your project.
9.2. your line items include budgeted costs with a total budgeted cost.
9.3. your line items include actual costs with a total actual cost.

Learning Objectives
9.b. Differentiate between top-down and bottom-up approaches for determining budgets.
9.c. Determine resource costs required for a project plan: labor, materials, equipment, supplies, administrative expenses, overhead, and profit.
9.d. Estimate costs of required resources.

10. **Monitor project performance.**

Assessment Strategies
10.1. Product
10.2. Written Product

Criteria

*You will know you are successful when:*
10.1. you follow standard Gantt Chart format.
10.2. you list all activities on Gantt Chart.
10.3. you display calendar dates of the project on Gantt Chart.
10.4. you display bar charts of activity completion rates on Gantt Chart.
10.5. you outline the date of the status report meeting on Gantt Chart.
10.6. you include updates on activities, risks, and concerns on Status Report.
10.7. you include three sections: green (on track), yellow (potential issues), and red (critical) on Status Report.

Learning Objectives
10.a. Examine the use of Gantt charts for project status.
10.b. Prepare a project Gantt chart.
10.c. Investigate ways to address a project in distress.
10.d. Explore the importance of a change log.
10.e. Examine various components included in status reports.

11. **Evaluate project performance.**

Assessment Strategies
11.1. Reflection

Criteria

*You will know you are successful when:*
11.1. you explain the differences in project performance as compared to plan.
11.2. you explain reasons for project outcomes.
11.3. you recommend options for future projects.
11.4. you analyze estimated versus actual budget of project.
11.5. you analyze estimated versus actual activity durations of project.
11.6. you analyze estimated versus actual completion dates of project.
11.7. you compare original scope versus final scope of project.

Learning Objectives
11.a. Discuss the importance of defining lessons learned.
11.b. Explore project document archiving.
11.c. Explore how to measure project success.