

The learning outcomes for the Master of Science in Technology Project Management include the project tasks related to project selection and initiation, project planning, project execution and control, project close, and ethics and professional responsibility. The relevant learning outcome sections below include what the students will know and be able to do upon completion of the academic degree.

1. Project Selection and Initiation

Upon completion of the program, the student will be able to take responsibility for the following tasks:

- 1.1: Apply project selection methods to evaluate the feasibility of projects.
- 1.2: Assess project contribution to business strategy, purpose and plans.
- 1.3: Determine and document project goals and performance requirements by working closely with project stakeholders.
- 1.4: Define and document product or service deliverables.
- 1.5: Select appropriate project management practices, tools and methodologies.
- 1.6: Define constraints and assumptions.
- 1.7: Define and document project schedule, budget, resources and quality.
- 1.8: Evaluate alternative strategies in order to meet stakeholder requirements.
- 1.9: Define performance criteria to support quality assurance effort.
- 1.10: Assess and document project risks.
- 1.11: Produce a project approval document for appropriate stakeholder review and decision.

2. Project Planning

Upon completion of the program, the student will be able to take responsibility for the following tasks:

- 2.1: Define, analyze, refine and document project requirements, assumptions, and constraints.
- 2.2: Develop a Work Breakdown Structure (WBS).
- 2.3: Develop the resource management plan and obtain commitments from resource providers.
- 2.4: Analyze and refine project time and cost estimates to define project baseline, schedule and budget.
- 2.5: Implement project control system to manage project change, communications, procurement, risk, quality and human resources.
- 2.6: Develop a formal and comprehensive project plan, including, where applicable:
 - Communications plan;
 - Risk management plan;
 - Change management plan;
 - Resource management plan;
 - Quality plan;
 - Procurement management plan;
 - Organization plan.
- 2.7: Conduct processes to obtain project plan approval.

3. Project Execution and Control

Upon completion of the program, the student will be able to take responsibility for the following tasks:

- 3.1: Commit project resources and procedures required to initiate and monitor the performance of work in accordance with the project plan.



- 3.2: Implement the project plan by authorizing the execution of project activities required to produce project deliverables.
- 3.3: Manage project progress by applying performance reporting, analysis, and progress measurement techniques to ensure activities are executed as planned.
- 3.4: Communicate project progress to stakeholders.
- 3.5: Implement quality assurance procedures.
- 3.6: Develop, lead and manage project teams.
- 3.7: Measure project performance comparing results to the baseline.
- 3.8: Identify needs for corrective action, obtain approvals, perform appropriate actions and evaluate effectiveness.
- 3.9: Manage project scope changes.
- 3.10: Reassess and update project control plans and practices to ensure effectiveness.
- 3.11: Recognize and respond to risk events and issues.

4. Project Close

Upon completion of the program, the student will be able to take responsibility for the following tasks:

- 4.1: Obtain final acceptance of deliverables from appropriate stakeholders.
- 4.2: Document lessons learned.
- 4.3: Facilitate administrative and financial closure.
- 4.4: Preserve essential project records to adhere to legal and other requirements.
- 4.5: Release project resources by following appropriate organizational procedures.
- 4.6: Ensure project has been transitioned to operation, if applicable.

5. Ethics and Professional Responsibility

Upon completion of the program, the student will be able to take responsibility for the following tasks:

- 5.1: Ensure individual integrity and professionalism by adhering to legal requirements and ethical standards.
- 5.2: Enhance individual competence with continuous learning.
- 5.3: Recommend approaches that strive for fair resolution to satisfy competing needs and objectives.
- 5.4: Respect personal, ethnic and cultural differences.

