CompTIA Project+ (2009 Edition) Certification Examination Objectives

DRAFT

INTRODUCTION

The Project + examination is designed for business professionals involved with projects. This exam will certify that the successful candidate has important core knowledge of the project life cycle, roles and skills necessary to effectively initiate, plan, execute, monitor/control and close a project.

The examination is intended for candidates possessing at least 12 months of cumulative experience in leading, managing, directing and/or participating in small to medium scale projects.

Project + examines the business, interpersonal and technical project management skills required to successfully manage projects and business initiatives. The skills and knowledge measured by this examination were derived from an industry-wide job task analysis and validated through an industry-wide survey. The results of this survey were used in weighing the domains and ensuring that the weighting is representative of the relative importance of the content.

The exam is in the conventional linear format. There are about 100 questions on the exam and candidates will have 90 minutes to complete the exam.

The table below lists the domains measured by this examination and the extent to which they are represented. The CompTIA Project+ exam is based on these objectives.

<table>
<thead>
<tr>
<th>Domain</th>
<th>% of Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Project Setup/Initiating</td>
<td>12%</td>
</tr>
<tr>
<td>Project Planning</td>
<td>29%</td>
</tr>
<tr>
<td>Project Execution and Delivery</td>
<td>23%</td>
</tr>
<tr>
<td>Change, Control and Communication</td>
<td>27%</td>
</tr>
<tr>
<td>Project Closure</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Note: The bulleted lists below each objective are not exhaustive lists. Even though they are not included in this document, other examples of processes or tasks pertaining to each objective may also be included on the exam.

(A list of acronyms used in these objectives appears at the end of this document.)
1.0 Pre-Project Setup/Initiating

1.1 Explain the requirements to complete a pre-project setup
   • Identify the project
   • Validate the project
   • Prepare a project charter
   • Obtain approval (signature) for project charter

1.2 Identify the characteristics of a project
   • Temporary endeavor
   • Delivers a unique product or service
   • Constrained by time
   • Resources and quality

1.3 Summarize the steps required to validate a project
   • Validate business case
     o Feasibility analysis
     o Justification for project
     o Alignment to strategic plan
   • Identify and analyze stakeholders

1.4 Explain the components of a project charter
   • Key project deliverables
   • High level milestones
   • High level cost estimates
   • Identify stakeholders
   • General project approach
   • Problem statement
   • High level assumptions
   • High level constraints
   • High level risks
   • Project objectives

1.5 Outline the process groups of the project life cycle
   • Initiating/Pre-Project Setup
   • Planning
   • Executing
   • Monitoring/controlling
   • Closing

1.6 Explain the different types of organizational structures
   • Functional
   • Weak matrix
   • Matrix
   • Strong matrix
   • Project Based
2.0 Project Planning

2.1 Prepare a project scope document based on an approved project charter
   - Key Performance Indicators (KPIs)
   - Scope boundaries
   - Constraints
   - Assumptions
   - Detailed objectives
   - Final project acceptance criteria
   - Validate scope statement with stakeholders

2.2 Use a Work Breakdown Structure (WBS) and WBS dictionary to organize project planning
   - Explain the benefits of WBS
   - Explain the levels of a WBS
   - Explain the purpose of a WBS
   - Identify the planning processes which utilize the WBS as an input
   - Critique a given WBS
   - Explain the purpose of a WBS dictionary

2.3 Outline a process for managing changes to the project
   - Approvals required
   - Forms needed
   - Turnaround times
   - Document routing
   - Communication flow

2.4 Develop a project schedule based on WBS, project scope and resource requirements
   - Schedule to milestones
   - Analyze Gantt chart
   - Identify dependency types
   - Determine the critical path of a project schedule
   - Establish schedule baselines

2.5 Given a desired deliverable, apply the appropriate tool and/or method to produce the appropriate outcome
   - Tools
     - PERT
     - Gantt
   - Methods
     - CPM

2.6 Given a scenario, interpret the results of using the following tools and/or methods
   - Tools:
     - GERT
   - Methods:
     - Network diagram (ADM, PDM, CDM, CCM)
2.7 Identify components of an internal / external communication plan
- Frequency
- Format (formal, informal, written and verbal)
- Method of distribution
- Distribution list

2.8 Outline the components of a risk management plan
- Initial risk assessment
- Risk matrix
- Risk register
- Risk response strategies
- Stakeholder risk tolerance

2.9 Identify roles and resource requirements based on WBS and resource availability
- Identify existing resource availability
- Identify training needs / outsourcing requirements
- Assign resources to scheduled tasks

2.10 Identify components of a quality management plan
- Quality metrics, control limits, and frequency of measurement
- Quality assurance processes
- Quality control processes
- Quality baseline

2.11 Identify components of a cost management plan
- Control limits
- Assign costs
- Chart of accounts
- Project budget
- Cost estimates (bottom up, top down, parametric, expert judgment, analogous)
- Cost baseline

2.12 Explain the procurement process in a given situation
- Project needs assessment / gap analysis
- Make or buy decision
- RFI, RFQ, RFP (Request for: Information, Quote, Proposal)
- Request seller response
- Evaluate seller response
- Vendor selection
- Contract development

2.13 Explain the purpose and common components of a transition plan
- Ownership
- Transition dates
- Training
- Extended support
- Warranties

3.0 Project Execution and Delivery
3.1 Coordinate human resources to maximize performance
- Assemble and develop project team, build team cohesiveness, perform individual performance appraisals
- Identify common causes of conflict:
  - Competing resource demands
  - Expert judgment
  - Varying work styles
- Detect conflict and apply conflict resolution techniques:
  - Smoothing
  - Forcing
  - Compromise
  - Confronting
  - Avoiding
  - Negotiating

3.2 Explain the importance of a project kick-off meeting and outline the common activities performed during this meeting
- Communicates stakeholder expectations, high level timeline, project goals and objectives, roles and responsibilities to the project team

3.3 Recognize the purpose and influence of organizational governance on a project’s execution
- Standards compliance
  - Local, state, federal, ISO
- Internal process compliance
  - Audit trails, retention, version control
- Decision oversight
  - Change Control Board, committee consulting
- Phase gate approval
  - Tollgate approval, project phase transition

3.4 Given a scenario, select which component(s) of a project plan is affected and select what action(s) should be taken.
- Actions:
  - Schedule meetings
  - Manage scope
  - Follow communications plan
  - Manage project quality
  - Manage risks
  - Issue management
  - Prepare performance reports
  - Receive work performance information
  - Manage costs within budget
  - Implement approved changes
- Components
  - Risk register
  - Communications plan
  - Issues log
  - Change management form
  - Quality management metrics
  - Project schedule
  - WBS
  - Budget
  - Resource requirements
  - Scope statement
4.0 Change, Control and Communication

4.1 Given a scenario, implement proper change management procedures
   • Identify change
   • Document using the appropriate change control forms
   • Perform impact analysis
   • Coordinate with the appropriate stakeholders to select the course of action
   • Update the appropriate project plan components based on the approved change request

4.2 Evaluate the impact of potential changes to triple constraint
   • Time / Schedule
   • Cost / resources
   • Quality
   • Scope

4.3 Using the risk management plan determine an appropriate response to potential risk / opportunity events
   • Perform qualitative and quantitative risk analysis
   • Opportunities
     ○ Sharing
     ○ Exploiting
     ○ Enhancing
   • Threats
     ○ Avoidance
     ○ Acceptance
     ○ Mitigation
   • Update risk register with appropriate changes

4.4 Given a scenario, execute appropriate resource leveling techniques
   • Fast tracking
   • Crashing
   • Delaying
   • Optimizing
     ○ Use of tools as necessary

4.5 Explain the appropriate steps to ensure quality of project deliverables
   • Monitor work performance
   • Analyze performance information
   • Identify variances
   • Generate change requests
   • Implement change requests

4.6 Identify potential tools to use when a project deliverable is out of specification as defined in the quality baseline
   • Pareto charts
   • Histograms
   • Run charts
   • Ishikawa diagram

4.7 Given a scenario, calculate and interpret the results of Earned Value Measurement (EVM)
   • EV
   • PV
   • CPI
- SPI
- EAC
- ETC
- VAC
- BAC

4.8 Given a scenario, manage and implement information distribution based on communications plan
- Manage stakeholders expectations
- Schedule effective project meetings
- Periodic stakeholders updates

4.9 Recognize the special communication needs of remote and/or indirect project team members
- Time zones
- Communication preferences
- Functional or hierarchical barrier
- Language barriers
- Technology barriers
- Cultural differences

5.0 Project Closure

5.1 Explain the importance and benefits of formal project closure
- Confirm and document objectives that were completed/not complete
- Release resources
- Provide historical information for future projects
- Close contracts
- Standards compliance
  - Document retention compliance
- Post-project review
  - Meeting to review what went right / what went wrong

5.2 Identify circumstances in which project/phase closure might occur and identify steps to take when closure occurs
- Phase closure
- Project completion
- Stage completion
- Component completion
- Project cancellation

5.3 Identify the components and purpose of closing documentation
- Lessons learned
  - Strengths / weaknesses
- Close report
  - Historical data
  - Summary of costs
- Post mortem analysis
  - Documents reasons for early closure and impact
- Final individual performance appraisal
  - Final review of performance
- Transition plan

Project+ Acronym List
<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ADM</td>
<td>Arrow Diagram Method</td>
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<tr>
<td>BAC</td>
<td>Budget At Completion</td>
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<tr>
<td>CCM</td>
<td>Critical Chain Method (Correct)</td>
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<tr>
<td>CPI</td>
<td>Cost Performance Index</td>
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<tr>
<td>CPM</td>
<td>Critical Path Method</td>
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<td>EAC</td>
<td>Estimate At Completion</td>
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<tr>
<td>ETC</td>
<td>Estimate To Complete</td>
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<tr>
<td>EV</td>
<td>Earned Value</td>
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<td>ISO</td>
<td>International Standards Organization</td>
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<td>KPI</td>
<td>Key Performance Indicator</td>
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<td>PDM</td>
<td>Precedence Diagramming Method</td>
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<td>PERT</td>
<td>Project Evaluation and Review Technique</td>
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<td>PV</td>
<td>Planned Value</td>
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<td>RFI</td>
<td>Request for Information</td>
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<td>RFP</td>
<td>Request for Proposal</td>
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<td>Request for Quote</td>
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<td>SPI</td>
<td>Schedule Performance Index</td>
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<td>VAC</td>
<td>Variance At Completion</td>
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<tr>
<td>WBS</td>
<td>Work Breakdown Structure</td>
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