COMMONWEALTH OF VIRGINIA

Information Technology Resource Management (ITRM)

PROJECT MANAGER SELECTION AND TRAINING STANDARD

Virginia Information Technologies Agency (VITA)

Reviews

- This publication was reviewed and approved by the Director of the Project Management Division.
- Online review was provided for agencies and other interested parties via the VITA Online Review and Comment Application (ORCA).

Publication Version Control

Questions related to this publication should be directed to the Director of VITA's Project Management Division. PPA notifies Agency Information Technology Resources (AITRs) at all state agencies, institutions and other interested parties of proposed revisions to this document.

This following table contains a history of revisions to this publication.

Version	Date	Revision Description
ITRM Standard GOV 2003-02.3	09/26/2003	Publication of Base Document
ITRM Standard CPM 111-01	07/14/2009	First Revision. Align Standard with Commonwealth business needs.
ITRM Standard CPM 111-02	11/28/2011	Administrative changes. Align Standard with Commonwealth Project Management Standard.
ITRM Standard CPM 111-02.1	05/15/2015	Administrative changes. Replace entirety of Section 4 regarding new test descriptions and test procedures.
ITRM Standard CPM 111-03	01/1/2016	Major changes: added more qualification categories, expanded experience requirements; introduces concept that PM qualifications can become dormant through inactivity, and how to remain currently qualified.
ITRM Standard CPM 111-04	01/1/2018	Revised CTP training requirement; other wording changes.
ITRM Standard CPM 111-05	04/19/2022	Eliminated Agency-level requirements; simplified PM Qualification Matrix; clarified Section 5 as entirely advisory; other wording changes.

Identifying Changes in this Document

See the latest entry in the revision table above.

Preface

Publication Designation

ITRM Project Manager Selection and Training Standard CPM 111-05

Subject

Project Manager Selection and Training

Effective Date

April 19, 2022

Supersedes

ITRM Project Manager Selection and Training Standard CPM 111-04, January 1, 2018

Scheduled Review:

This standard shall be reviewed on an annual basis.

Authority

Code of Virginia, §2.2-2007 (Powers of the CIO)

Code of Virginia §2.2-2016.1 (Additional duties of the CIO relating to project management)

Code of Virginia, § 2.2-2011 (Additional powers of VITA)

Scope

This standard is applicable to all Executive Branch state agencies and institutions of higher education (hereinafter collectively referred to as "agencies") that are responsible for the management, development, purchase and use of information technology resources in the Commonwealth of Virginia. This standard does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

Purpose

This standard establishes direction and technical requirements, which govern the acquisition, use and management of information technology resources by executive branch agencies.

General Responsibilities

Chief Information Officer of the Commonwealth (CIO)

Develop, review and approve statewide technical and data policies, standards and guidelines for information technology and related systems.

Virginia Information Technologies Agency (VITA)

At the direction of the CIO, VITA leads efforts that draft, review and update technical and data policies, standards, and guidelines for information technology and related systems. VITA uses requirements in IT technical and data related policies and standards when establishing contracts; reviewing procurement requests, agency IT projects, budget requests and strategic plans; and when developing and managing IT related services

Information Technology Advisory Council (ITAC)

Advise the CIO on the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Executive Branch Agencies

Provide input and review during the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Table of Contents

1. INTRODUCTION

1.1 Purpose of the Standard

The purpose of the Information Technology Resource Management Project Manager Selection and Training Standard (PMST Standard) is to:

- Describe the required skills, training and experience Commonwealth Project and Program Managers need to have in order to be considered qualified to manage Commonwealth IT projects.
- Provide a method for identifying Project and Program Managers qualified to manage Commonwealth IT projects and IT programs.
- Identify the steps a Project or Program Sponsor must take in selecting a qualified Project or Program Manager to manage a Commonwealth IT project or program.

Note: For the purposes of this Standard, the term Project Manager is generally understood to mean either Project Manager or Program Manager. However, there is a section of this Standard pertaining exclusively to Program Managers.

Qualification of a Project Manager is not synonymous with certification. The Commonwealth does not 'certify' project managers. For the purposes of this Standard, a Project Manager is considered qualified if through knowledge and training, formal education, and project experience. By fulfilling these conditions, the Project Manager indicates they have the capacity to effectively manage an IT project in the context of the Commonwealth's IT investment management framework.

1.2 Adherence to Commonwealth Standards of Conduct

As representatives of state agencies with authority and responsibility to manage significant Commonwealth resources, Commonwealth IT Project Managers must conduct themselves in a manner deserving of public trust. Specifically, IT Project Managers qualified to manage Commonwealth IT projects are expected to adhere to the Employee Standards of Conduct outlined on pages 2 and 3 of the Commonwealth Standards of Conduct. The Commonwealth Standards of Conduct can be found on the Human Resources Policy section of the Department of Human Resource Management (DHRM) website at http://www.dhrm.virginia.gov/.

1.3 Commonwealth Project Management

The Commonwealth Project Management (CPM) methodology defines the required agency processes and documentation for all Commonwealth IT projects as defined by the Commonwealth Project Management Standard. The use of CPM methodology increases Commonwealth IT project success by promoting sound investment decisions, ensuring management commitment and oversight, implementing a best practice based project management methodology, and defining processes that measure and evaluate project value and success throughout the project lifecycle.

All Commonwealth IT Project Managers are required to follow the CPM methodology as established in the Commonwealth Project Management Standard (PM Standard.)

1.4 ITIM

Information Technology Investment Management (ITIM) is a management process that provides for the pre-selection (identification), selection, control, and evaluation of business-need-driven IT investments across their lifecycles. ITIM uses structured processes to minimize risks, maximize return on investments, and support Commonwealth agency decisions to maintain, migrate, improve, retire, or obtain IT investments. ITIM is the basis for the Commonwealth's approach to technology management as described in the Commonwealth Technology Management Policy (CTM Policy).

All Commonwealth IT investments must successfully complete the ITIM Pre-select (Identification) and Select Phases before they are considered projects. A Project Manager is officially selected and assigned to the project during the CPM Project Initiation Phase, and the Project Manager is identified in the project Charter.

1.5 Project Manager Selection and Training Stakeholders

Project Manager Selection and Training stakeholders are the groups or individuals who have responsibility for Project Manager Selection or Project Manager Training activities, decisions, governance, or oversight. Each stakeholder has an important role in ensuring that Project Managers have the skill, training, and experience needed to effectively manage IT projects in the Commonwealth.

1.5.1 Commonwealth Chief Information Officer (CIO)

The Commonwealth Chief Information Officer (CIO), as established in the *Code of Virginia*, is an appointee of the Governor, and leads the Virginia Information Technologies Agency (VITA.) The CIO ensures that agency IT investments are developed and placed in operation using a disciplined, well-managed, and consistent process.

The role of the CIO in Project Manager Selection and Training is to direct the development of the Project Manager Selection and Training Standard, to review Project Manager qualifications, and approve the selection of IT Program Managers, and Project Managers assigned to Category 1, 2 and 3 IT Projects as defined in the Project Management Standard. The CIO may also grant a temporary waiver from the Project Manager qualification requirements if the project sponsor agrees that the Project Manager will meet the qualification requirements by a specific date. If the Project Manager does not meet the qualification requirements by the specified date, the CIO retains the authority to direct modifications to the IT Project, as detailed in the Project Management Standard.

1.5.2 Commonwealth Project Management Division (PMD)

Under the direction of the CIO, the Project Management Division (PMD) implements an enterprise strategy for the effective and efficient management of information technology investments.

The role of PMD in Project Manager Selection and Training is to:

- Develop the Project Manager Selection and Training Standard for the CIO.
- Provide cost-effective Project Manager qualification training.
- Administer Project Manager qualification testing.
- Oversee the selection of Commonwealth IT Project Managers; and

when appropriate recommend that the CIO grant a temporary waiver from the Project Manager qualification requirements if the Project Sponsor agrees to full compliance with the requirements by a specific date.

1.5.3 Commonwealth Agencies

Commonwealth agencies are the business owners of IT projects in the Commonwealth, and typically have supervisory responsibility over the IT Project Managers assigned to the projects that the agency sponsors.

The role of agencies in Project Manager Selection and Training is to select qualified IT Project Managers in compliance with the criteria identified in the Project Manager Selection and Training Standard. Supervisors of agency Project Manager candidates must validate the candidate's experience, training, and certification entries in the Project Manager Qualification Record.

1.5.4 Commonwealth IT Project Managers

Commonwealth IT Project Managers are individuals assigned by an agency to manage a temporary endeavor undertaken to create a unique IT product, service, or result. IT Project Managers are responsible and accountable for the performance of IT projects in the Commonwealth, and are evaluated based on their ability to use project resources to achieve project objectives.

The role of Commonwealth IT Project Managers in Project Manager Selection and Training is to be qualified to manage IT projects in the Commonwealth by meeting the minimum knowledge and training, formal education, and project experience requirements as identified in this Standard. Project Managers seeking to become qualified Commonwealth IT Project Managers must complete a Project Manager Qualification Record.

2. PROJECT MANAGER QUALIFICATION

2.1 Definition of Project Manager Qualification

Commonwealth Project Manager qualification is the assessment of a Project Manager's skill, training, and experience. Project Managers are qualified for specific categories of projects based on the risk and complexity assessments of the specific project.

2.2 Project Categories

For the purposes of governance and oversight, projects that have an estimated cost in excess of $250,000 are considered Commonwealth-level projects and are categorized in one of four categories, based on their assessed risk and complexity, as defined in the Project Management Standard.

Project Categories 1 - 4				
		Complexity:		
		High	Medium	Low
Risk:	High	**1**	**2**	**2**
	Medium	**2**	**3**	**3**
	Low	**3**	**4**	**4**

Projects that have an estimated cost less than $250,000 are considered Agency-level projects.

PMD, on behalf of the CIO, verifies that the project sponsor has selected a qualified IT Project Manager for their IT project based on the project risk/complexity categories listed above.

2.3 Keeping Project Manager Qualifications Current

One's familiarity with Commonwealth Project Management methodology, procedures and requirements can become stale and outdated if not recently put into practice. Therefore, there is a time limit to CPM qualification: If you become CPM qualified, but do not perform the role of designated project manager on a Commonwealth-level (Category 4,3,2,1) IT project for a period of three years, your CPM qualification is no longer active; it has become dormant, and you must renew the PM Qualification prior to assignment to a Commonwealth-level project. If your CPM qualification becomes dormant, you may reactivate your CPM qualification by simply attending the Commonwealth Project Manager Overview Class; there is no need to re-take the Level One or Level Two exam. Note that the 3-year (36 month) CPM qualification currency limit is measured from the most recent event: a) after passing the CPM Qualification Exam – Level One, or b) the closeout date of a Commonwealth-level (Category 4, 3, 2, or 1) IT project in which the candidate was the designated Project Manager.

2.4 Qualifications for Agency-level IT Projects

Because the VITA Project Management Division typically does not have visibility into Agency-level projects, there is no Agency-level IT Project Manager Qualification. Accordingly, this Standard does not enumerate Agency-level Project Manager qualifications. However, this does not diminish the importance of Agency-level projects, nor the risk and

costs of the numerous Agency-level projects conducted every year across the enterprise. Therefore, this Standard does list preferred qualifications that agencies should consider when selecting a project manager for an Agency-level IT project.

Note that a "preference" is not a "requirement". An agency is not in violation of this Standard if the selected project manager does not meet a "preferred" qualification. However, project manager candidates who have met the "preferred" qualification tend to perform better in the PM role for a given project.

Knowledge & Training: The Project Sponsor should give preference to selecting Project Manager candidates who Have completed the Commonwealth IT Project Manager Overview Training within the past 3 years.

Formal Education: The Project Sponsor should give preference to selecting Project Manager candidates who have an Associates or higher level degree in a management or technology discipline related to the project or have passed the PM Qualification – Level One Exam within the past 3 years.

Project Experience: The Project Sponsor should give preference to selecting Project Manager candidates who have exhibited team building and leadership potential, and have at least 1,500 hours of project team experience, which includes any position on a project team.

2.5 Qualifications for Category 4, 3, 2, 1 IT Projects and IT Program Manager

For Commonwealth-level IT projects, the project manager must qualify in three areas:
- Commonwealth PM Qualification for a given Category (4,3,2,1) project
- Knowledge and Training
- Project Experience

Additionally, the project sponsor should consider and prefer PM candidates in the following area:
- Formal Education

2.5.1 Commonwealth IT PM Qualification Requirements

Commonwealth PM Qualification for a given Category (4,3,2,1) project: A Project Manager must have a current Commonwealth Project Manager (CPM) Qualification in order to be the designated PM as follows:
- Category 4 IT Project: CPM qualified for Category 4, 3, 2, or 1 IT Project
- Category 3 IT Project: CPM qualified for Category 3, 2, or 1 IT Project
- Category 2 IT Project: CPM qualified for Category 2 or 1 IT Project
- Category 1 IT Project: CPM qualified for Category 1 IT Project
- Commonwealth IT Program: CPM qualified for Category 3, 2, or 1 IT Project

2.5.2 Knowledge & Training Requirements

Knowledge & Training: A Project Manager must have the following Knowledge & Training to be the designated PM as follows:

- Category 4 IT Project:
    - Must complete the Commonwealth IT Project Manager Overview Training within the past 3 years.
        - Note: If your previous CPM Qualification has become dormant, you must attend the Commonwealth IT Project Manager Overview Training; there is no requirement to pass the Level One Exam again.
    - Must pass the PM Qualification – Level One Exam, within the past 3 years.
        - Note: The Level One Exam requirement is for first-time CPM Qualification only; there is no requirement to pass the Level One Exam again.
    - Preference should be given to a current, certified Project Management Professional (PMP) or Certified Associate Project Manager (CAPM).

- Category 3, Category 2, Category 1 IT Project, or IT Program Manager:
    - Must complete the Commonwealth IT Project Manager Overview Training within the past 3 years.
        - Note: If your previous CPM Qualification has become dormant, you must attend the Commonwealth IT Project Manager Overview Training; there is no requirement to pass the Level One Exam again.
    - Must pass the PM Qualification – Level One Exam, within the past 3 years.
        - Note: The Level One Exam requirement is for first-time CPM Qualification only; there is no requirement to pass the Level One Exam again.
    - Must pass the PM Qualification – Level Two Exam, within the past 3 years.
        - Note: The Level Two Exam requirement does not apply to individuals who are a current, certified Project Management Professional (PMP).
    - Preference should be given to a current, certified Project Management Professional (PMP or PgMP).

2.5.3 Formal Education Requirements

Formal Education: There are no Formal Education requirements, only the following preferences as follows:

- Category 4 IT Project: The following preferences:
    - Have a Bachelors or higher level degree in a management or technology discipline related to the project.
        - (If no college degree, be a currently qualified Commonwealth-Level IT Project Manager.)
    - Have experience or special qualifications in an applicable functional or technical field.

- Category 3, Category 2, Category 1 IT Project, or IT Program Manager: The following preferences:
    - Have a Bachelors or higher level degree in a management or technology discipline related to the project.
        - (If no college degree, be a currently qualified Commonwealth-Level IT Project Manager.)
    - Have experience or special qualifications in an applicable functional or technical field.
    - Have completed advanced project management training on a subject, such as:

- Advanced Risk Management;
- Advanced Project Metrics and Statistical Analysis;
- Systems Development;
- Enterprise Architecture;
- Financial Management for Projects and Programs;
- Strategic Planning;
- Organizational Dynamics and Organizational Change Management
- Note: For IT Program Manager, Preferred: Review the Program Management Standard and discuss the requirements, and PMD guidance with a PMD Consultant.

2.5.4 Project Experience Requirements

Project Experience: A Project Manager must have the following Project Experience to be the designated PM as follows:

- Category 4 IT Project:
    - o Must have exhibited effective team building, leadership, and communication skills.
    - o Must have at least combined 2,000 hours of successful project management experience.
        - Project management experience must be from any of the following sources:
            - Project Manager on an Agency-level IT Project;
            - A member of the management team on a Category 1-4 IT Project;
            - Performed as the Project Manager for at least one Category 4 or higher IT Project, or $250,000 other-than-Commonwealth project.
            - Preferred project team experience: Performed as the Project Manager for at least one Category 4 or higher IT Project, or $250,000 other-than-Commonwealth project.

- Category 3 IT Project:
    - o Must have exhibited effective team building, leadership, and communication skills.
    - o Must have at least combined 3,000 hours of successful project management experience.
        - Project management experience must be as a Project Manager on at least one IT Project of at least $250,000.
    - o Preferred project team experience: Performed as Project Manager on at least one Category 1, 2 or 3 IT Project; or $1M other-than-Commonwealth IT project.

- Category 2 IT Project:
    - o Must have exhibited effective team building, leadership, and communication skills.
    - o Must have at least combined 4,500 hours of successful project management experience.
        - Project management experience must be as a Project Manager on at least one Commonwealth-level IT Project; or $1M other-than-Commonwealth IT project.

- o Preferred project team experience: Performed as Project Manager on at least one Category 1 or 2 IT Project; or $1M other-than-Commonwealth IT project.

- Category 1 IT Project, or IT Program Manager:
  - o Must have exhibited effective team building, leadership, and communication skills.
  - o Must have at least combined 4,500 hours of successful project management experience.
    - Project management experience must be as a Project Manager on multiple Commonwealth-level IT Projects; or multiple $1M other-than-Commonwealth IT projects.
  - o Preferred project team experience: Performed as Project Manager on at least one Category 1 or 2 IT Project; or $1M other-than-Commonwealth IT project.

2.6 Qualifications for IT Program Manager

The size, scope, cost, complexity and risk of an IT Program varies greatly; accordingly, the qualifications for IT Program Manager, listed in the previous section, provide latitude to accommodate a particular scenario at the discretion of the Program Sponsor and Commonwealth CIO.

In addition to the IT Program Manager qualifications listed in the previous section, the Program Manager candidate should review the Program Management Standard and Program Management Guideline training materials and discuss the standard requirements with a PMD Consultant.

PM Qualification Requirements						
	Agency Level	Cat 4	Cat 3	Cat 2	Cat 1	IT Program Mgr
CPM Qualification						
Current Commonwealth Project Manager qualification	Not Required	**Must** ...be current CPM qualified Category 4, 3, 2 or 1 Project Manager	**Must** ...be current CPM qualified Category 3, 2 or 1 Project Manager	**Must** ...be current CPM qualified Category 2 or 1 Project Manager	**Must** ...be current CPM qualified Category 1 Project Manager	**Must** ...be current CPM qualified Category 3, 2 or 1 Project Manager
Knowledge & Training:						
Complete the Commonwealth IT Project Manager Overview Training within the past 3 years.	*Preferred*	**Must** ...for first-time CPM Qualification, and then only if your previous CPM Qualification has become dormant.				
Pass the PM Qualification – Level One Exam, within the past 3 years.	*Preferred*	**Must** ...for first-time CPM Qualification only.				
Pass the PM Qualification – Level Two Exam, within the past 3 years.	Not Required	Not Required	**Must** ...unless the PM is a currently certified Project Management Professional (PMP)			
Be a current, certified Project Management Professional (PMP)	Not Required	*Preferred*, or be a current, Certified Associate Project Manager (CAPM)	*Preferred*	*Preferred*	*Preferred*	*Preferred*, including Program Management Professional (PgMP)
Complete Commonwealth Technology Portfolio (CTP) training for Project Managers	Not Required	Not Required for CPM Qualification, but required just prior to receiving CTP license and working in CTP.				

PM Qualification Requirements						
	Agency Level	Cat 4	Cat 3	Cat 2	Cat 1	IT Program Mgr
Formal Education:						
Preferred: Have a college degree in a management or technology discipline related to the project.	*Preferred*: Associates or higher level degree. (Or, pass the PM Qualification – Level One Exam within the past 3 yrs.)	*Preferred*: Bachelors or higher level degree. (Or, be a currently qualified Commonwealth-Level IT Project Manager.)				
Preferred: Have experience or special qualifications in an applicable functional or technical field.	Not Required	*Preferred*				
Preferred: Have completed advanced project management training.	Not Required	Not Required	*Preferred*	*Preferred*	*Preferred*	*Preferred*; also, Review the Program Management Standard and discuss the requirements, and PMD guidance with a PMD Consultant.

PM Qualification Requirements						
	Agency Level	Cat 4	Cat 3	Cat 2	Cat 1	IT Pro-gram Mgr
Project Experience:						
Have effective team building, leadership, & com-muni-cation skills.	*Preferred*: show potential.	**Must**				
Have required project team experience	*Preferred*: have at least 1,500 hours of project team experience.	**Must** have at least combined 2,000 hours of successful project mgt experience.	**Must** have at least 3,000 hours of successful project mgt experience.	**Must** have at least 4,500 hours of successful project management experience.		
What sort of project team exper-ience?	Project manage-ment experience can be from any position on a project team.	Project mgmt. experience **must** be from: a. PM on an Agency-level IT Project; b. Member of the mgmt. team on a Cat. 1-4 IT Project; c. Serving in a position of authority, directly managing an IT O&M project.	Project manage-ment experience **must** be as a PM on at least one IT Project of at least $250,000.	Project manage-ment experience **must** be as a PM on at least one Common-wealth-level IT Project; or $1M other-than Common-wealth IT project.	Project management experience **must** be as a PM on multiple Commonwealth-level IT Projects; or multiple $1M other-than Commonwealth IT projects.	

PM Qualification Requirements						
	Agency Level	Cat 4	Cat 3	Cat 2	Cat 1	IT Program Mgr
Project Experience (cont'd):						
Preferred project team experience	Have experience or special qualifica-tions in a functional or technical field related to the project scope.	Performed as the PM for at least one Cat. 4 or higher IT Project, or $250,000 other-than-Common-wealth project.	Performed as PM on at least one Cat. 1, 2 or 3 IT Project; or $1M other-than Common-wealth IT project.	Performed as Project Manager on at least one Category 1 or 2 IT Project; or $1M other-than Commonwealth IT project.		

2.7 Special Circumstance Regarding Project Manager Qualification

There is a scenario where a Project Manager is qualified for a certain category of project, but the project category is subsequently reassigned to a higher category for which the Project Manager does not hold the necessary qualification. In this scenario, the Project Sponsor and Commonwealth CIO must assess the situation to determine if the current Project Manager seems capable of successfully managing the re-categorized project, mostly based on the historical performance of the Project Manager to date.

For example, a Project Manager is qualified for, and assigned to, a Category 3 project, but sometime after project initiation the project is re-categorized as a Category 2 project, for which the Project Manager is not qualified: The Project Sponsor and Commonwealth CIO retain the discretion to replace the Project Manager or to allow the current Project Manager to continue to serve in that capacity, citing an acceptable amount of additional risk to the project. Such a decision should be documented in a Change Control Request document, and archived in the Commonwealth Technology Portfolio (CTP).

2.8 Project Manager Qualification Record

The Project Manager Qualification Record (PMQR) presents a cumulative and concise summary of basic events in the IT Project Manager's career. The PMQR provides a means for the IT Project Manager to document their experience, training, and certification for meeting Commonwealth qualification requirements, and for the IT Project Manager's supervisor to validate the entries. The PMQR also serves as the basis for reporting information on the qualification of an IT Project Manager to run Commonwealth IT Projects, and provides Project Sponsors with background information to assist them in Project Manager selection. IT Project Managers should update their PMQR annually, and a Project Manager candidate will not be considered qualified for assignment unless the PMQR has been reviewed and updated by the candidate within one year of being considered for a project manager assignment.

IT Project Managers, their supervisors, and upon request Project Sponsors, can access PMQRs through the Project Manager Development Program section of the VITA website.

2.9 Steps to Project Manager Qualification

Sequentially, the Project Manager candidate must complete the following procedure to obtain their initial (first-time) qualification:

1. Create a PMDP-enabled VIM account (See the Project Manager Development Program section of the VITA website.)
2. Complete Project Manager Qualification Record (PMQR) (See the Project Manager Development Program section of the VITA website.)
3. The PM candidate must have their supervisor validate the PMQR.
4. Complete the Commonwealth IT Project Manager Overview Training within the past 3 years.
5. Pass the PM Qualification – Level One Exam within the past 3 years.

    Note: See section 2.3 of this Standard on how to reactivate your CPM Qualification if your qualification has become dormant.

    Note: Once assigned as the project manager of a Commonwealth-level project, the qualified PM must attend the Commonwealth Technology Portfolio (CTP) for Project Managers Training (optional for IT PgM). Please be aware that CTP training is not needed for CPM Qualification; CTP training is intended to familiarize the PM with CTP procedures and documentation. The PM should take CTP training 1-2 months prior to project initiation.

3. PROJECT MANAGER TRAINING

Project Manager training is the structured education of Commonwealth IT Project Managers in the processes, tools, and terminology used in managing projects. Commonwealth Project Managers are required to maintain accurate documentation of all their project management related training in their individual Project Manager Qualification Record (PMQR).

In general, there are two types of training, mandatory training and optional training. Mandatory training is required for all Project Managers and is directed toward Commonwealth specific information. Optional training is taken as necessary to acquire knowledge or develop skills that the Project Manager candidate needs to pass the knowledge test or to manage a unique project.

3.1 Mandatory Commonwealth IT Project Manager Orientation Training

Mandatory Commonwealth IT Project Manager Orientation Training class is designed to acquaint the Project Manager with the Commonwealth Project Management (CPM) methodology, the context within which Commonwealth IT projects are governed, the specific processes and procedures associated with IT project governance and oversight, and the Project Manager qualification requirements administered under the Commonwealth IT Project Manager Development Program (PMDP).

The Mandatory Commonwealth IT Project Manager Orientation Training class is a requirement for all Commonwealth-level IT Project Managers and IT Program Managers. It covers the following subjects:

- IT Governance and Oversight
- IT Policies, Standards and Guidelines (PSGs)
- Project Manager Selection and Training
- Commonwealth Project Management (CPM) Methodology

The objectives set for Project Managers taking the mandatory Commonwealth IT Project Manager Orientation Training class include:

- Understand the value of the Commonwealth's IT governance and oversight model and recognize governance and oversight roles.
- Distinguish and apply PSGs that apply to the conduct of IT projects in the Commonwealth.
- Apply the Project Manager Selection and Training Standard and PMDP tools to individual project management development and qualification.
- Use the Commonwealth Project Management Standard to properly document a project through close out and post implementation review.

3.2 Optional: Commonwealth Technology Portfolio Training

Commonwealth Technology Portfolio (CTP) Training class is designed to instruct CPM Qualified Project Managers on the IT Investment Management (ITIM) Process that the CTP supports, and the use of CTP navigation and forms during each phase of the CPM methodology. The class is not specifically required for an individual to obtain Commonwealth Project Manager Qualification. It is, however, a required class for obtaining

a license to use the Commonwealth Technology Portfolio. CPM qualified individuals should only take the class once they are assigned to a Commonwealth-level project, prior to actually using the Commonwealth Technology Portfolio.

Commonwealth Technology Portfolio Training is typically completed once a Project Manager is assigned to a project. The class covers the following subjects:

- Overview of the ITIM Process
- Obtain a CTP Account
- CTP Organization, Navigation, and Basic Functionality
- Relation of CTP to the ITIM Phases
- Review of CTP Forms related to the CPM Methodology

The objectives set for Project Managers taking the Mandatory CTP Training class are to:

- Identify and review the ITIM and CPM information compiled on the project prior to Project Manager assignment.
- Use the CTP to manage a project through each of the CPM Phases.

4. PROJECT MANAGER QUALIFICATION TESTING

All Project Manager candidates are required to successfully pass two qualification exams – Level One and Level Two. However, having a current Project Management Professional (PMP) certification supersedes the requirement to pass the Level Two exam.

The Commonwealth Project Manager Qualification Level One Exam is required for all Project Managers who manage Commonwealth IT projects from Category 1 – 4. The exam consists of five quizzes, and is based on the Commonwealth methodology outlined in the COV ITRM Project Management Standard CPM 112-04 and COV ITRM Project Manager Selection and Training Standard CPM 111-05. The candidate must successfully complete Level One before taking the Level Two Exam.

The exams are provided over the Internet using a secure Learning Management System (LMS). Each exam is broken down into sections called quizzes. The quizzes are open book. Each quiz has 16 multiple-choice questions pulled randomly from a question pool. Project Manager candidates must achieve a passing score of at least 75% for each quiz.

Level One Exam includes five separate quizzes:

1. Project Manager Qualification and Selection
2. Project Initiation
3. Project Planning
4. Project Execution and Control
5. Project Closeout

The Commonwealth Project Manager Qualification Level Two Exam is required for Project Managers who manage Commonwealth IT projects from Category 1 – 3, and who do not already possess a current PMP certification. The quizzes are based on A Guide to the Project Management Body of Knowledge (PMBOK Guide) 6th Edition and practical experience. The candidate must successfully complete Level One Exam before taking the Level Two Exam.

The exam is provided over the Internet using a secure Learning Management System (LMS). Each exam is broken down into sections called quizzes. The quizzes are open book. Each quiz has 16 multiple-choice questions pulled randomly from a question pool. Project Manager candidates must achieve a passing score of at least 75% for each quiz.

Level Two includes eight separate quizzes:

1. Project Scope Management
2. Project Schedule Management
3. Project Cost Management
4. Project Quality Management
5. Project Communication Management
6. Project Risk Management
7. Project Procurement Management
8. Project Stakeholder Management

The following is a list of the recommended study material for Project Manager candidates:

Level One Exam:

COV ITRM Project Manager Selection and Training Standard CPM 111-05

COV ITRM Project Management Standard CPM 112-04

Level Two Exam:

A Guide to the Project Management Body of Knowledge (PMBOK Guide) 6th Edition

Registration and Testing Process

The Community College Workforce Alliance (CCWA) at Reynolds Community College is responsible for registration, maintenance and administration of the Level One and Two exams. The exams are provided over the Internet using a secure Learning Management System (LMS) at the Virginia Community College System. The tester is required to read and agree to an honor code before taking the exams.

The registration and testing process is fully administered and managed by CCWA, and is subject to periodic changes; therefore, the most up-to-date process can be found on the VITA PMD PM Development Program (PMDP) page.

4.1 Project Manager Qualification Exam Level One

Level One objectives cover project activities that must be performed in the same sequence on most projects, and may be repeated several times during the project. The Level One Knowledge Standards identify the minimum competencies that should be possessed by all Commonwealth Project Managers concerning these activities. Five related competencies are presented under the following headings:

4.1.1 Project Manager Qualification and Selection

The project manager candidate will be able to apply the:

- Commonwealth methodology for Project Manager qualifications.
- Roles and responsibilities of the designated PM as defined in the standard.

4.1.2 Project Initiation

The Project Manager candidate will be able to apply the:

- Commonwealth methodology for initiation of projects.
- Research and formalization of the CTP forms required for project initiation.

4.1.3 Project Planning

The Project Manager candidate will be able to apply the:

- Commonwealth methodology for detail planning of projects.
- Requirements for CTP forms and project document related to detail planning.

4.1.4 Project Execution and Control

The Project Manager candidate will be able to apply the:

- Responsibilities of a Project Manager during project execution.

- Key control issues and the techniques employed to manage them.
- Use of the typical measurements and calculations to evaluate project progress.
- Frequency of status reporting (CTP) based on project category identified in the standard.

4.1.5 Project Closeout

The Project Manager candidate will be able to apply the:

- Tasks associated with project closeout.
- Schedule and plans that support project closeout.
- Collection and documentation of lessons learned.
- Formalization of the project closeout report and the post implementation review.

4.2 Project Manager Qualification Exam Level Two

Level Two objectives cover project activities that are performed intermittently throughout the project to support the Level One processes, depending on the nature of the project.

The eight Level Two related competencies are presented under the following headings:

4.2.1 Project Scope Management

The Project Manager candidate will be able to:

- Convey the relationship between scope and project failure.
- Communicate how projects are initiated and selected.
- Outline activities, inputs, and outputs of scope initiation, planning, definition, verification.
- Formulate a project charter and work breakdown structure (WBS).

4.2.2 Project Schedule Management

The Project Manager candidate will be able to:

- Establish the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.
- Provide guidance and direction on how the project schedule will be managed.
- Examine the different types of cost estimates and methods for preparing them.
- Calculate earned value as it applies to time management.

4.2.3 Project Cost Management

The Project Manager candidate will be able to:

- Convey the importance of project cost management.
- Apply basic project cost management principles, concepts, and terms.
- Examine the different types of cost estimates and methods for preparing them.
- Calculate earned value as it applies to cost management.

4.2.4 Project Quality Management

The Project Manager candidate will be able to:

- List and explain common principles of quality management (QM).
- List, distinguish between, and describe the processes and tools of Quality Planning, Assurance, and Control.
- Apply QM principles to Project Management.

4.2.5 Project Communication Management

The Project Manager candidate will be able to:

- List and describe project communication processes, inputs, outputs, and tools.
- List and apply project communication skills and methods.
- Compare methods of information distribution.
- Explain the purposes of administrative closure.

4.2.6 Project Risk Management

The Project Manager candidate will be able to:

- List and describe risk management planning, identification, analysis, response planning and monitoring and control on a project.
- Apply best practices to increase the probability and impact of positive events and decrease the probability and impact of negative events.

4.2.7 Project Procurement Management

The Project Manager candidate will be able to:

- List and describe activities, inputs, outputs, and tools of the 5 procurement management processes.
- Describe and contrast the types of contracts.
- Define and describe: statement of work (SOW), request for quote (RFQ), and request for proposal (RFP).
- List potential mistakes in managing procurement contracts and list guidelines for preventing them.

4.2.8. Project Stakeholder Management

The Project Manager candidate will be able to:

- Identify the people, groups, or organizations that could impact or be impacted by the project.
- Analyze stakeholder expectations and their impact on the project.
- Develop appropriate management strategies for effectively engaging stakeholders in project decision and execution.

5. PROJECT MANAGER SELECTION

Selecting a Project Manager well suited to manage an IT project is one of the most important actions a Project Sponsor can take to ensure the success of the project. In some cases, the Project Sponsor will temporarily assign a Project Manager to an IT project prior to the beginning of the Project Initiation Phase. The temporary Project Manager may subsequently manage the entire project; however, a Project Manager is not officially selected for an IT project until the Project Manager selection steps outlined below are complete.

Qualification and selection of a Project Manager is required prior to the submission of the Project Charter and supporting documents seeking Project Initiation Approval (PIA). The Project Manager must be either an employee of the Commonwealth or a consultant employed by the Commonwealth and qualified in accordance with the Project Manager Selection and Training Standard. The level of that qualification will vary by project category.

The following steps may be used in the Project Manager selection process, and are advisory in nature, not requirements:

5.1 Identify Project Manager Capabilities Needed for a Successful Project

Based on the information gathered in the Investment Business Case (IBC) and the Risk/Complexity Assessment, the Project Sponsor documents the behavior, skills, training, and experience that will be needed to successfully manage the project in a job description.

5.2 Form a Project Manager Candidate Pool

The Project Sponsor takes the following steps to form a pool of Project Manager candidates from which the Project Manager will be selected.

1. Collect Candidates—The Project Sponsor collects a list of qualified Project Manager candidates whose behavior, skill, training, and experience potentially meet or exceed the requirements documented in the job description. The Project Sponsor may list only agency Project Managers if those Project Managers are considered qualified candidates. Candidate qualification and references should be checked.
2. Form Candidate Pool—The Project Sponsor reduces the number of Project Manager candidates to only those qualified Project Managers who give the project an excellent opportunity for success. The Project Sponsor may form the Project Manager Candidate Pool using only agency Project Managers who are considered qualified candidates.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager candidate pool, the temporary Project Manager may not manage this step.

5.3 Interview Project Manager Candidates

The Project Sponsor will interview the candidates in the Project Manager Candidate Pool. The interview questions should be designed to identify which candidate gives the project its best opportunity for success. If confidential procurement information must be shared with

the candidate in order to conduct an effective interview, the candidate must sign a non-disclosure agreement.

All key project stakeholders should have an opportunity to participate in the interview process. The PMD Project Management Specialist assigned to the agency is an excellent resource, and may be invited to participate in any interview with a Project Manager who will be assigned to a Category 1, 2 or 3 IT Project. The PMD Project Management Specialist assigned to the agency has the option to participate in candidate interviews in order to confirm the Project Manager's qualifications, and to better support the Project Manager once they are selected.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager Candidate Pool, the temporary Project Manager may not manage the interview process.

5.4 Select a Project Manager

Based on the behavior, skill, training, and experience of the interviewed candidates, the quality of the candidates' references, and the results from the candidate interviews, the Project Sponsor selects the qualified Project Manager that gives the project the best opportunity for success. For Category 1, 2 or 3 IT Projects, the CIO must approve the selection of the Project Manager.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager candidate pool, the temporary Project Manager may not manage the selection process.

5.5 Receive Project Manager Selection Approval

The Project Manager is appointed by the Project Sponsor and approved by the Chief Information Officer, who approves that selection as part of Project Initiation Approval.

Once the Project Manager selection is approved, the Project Sponsor ends the Project Manager Selection process and facilitates the transition of the Project Manager into the assigned project management role.

5.6 PMD Steps to Assigning a Project Manager

Sequentially, the Project Manager candidate must complete the following procedure:

1. In PMQR, check for the end date (project completion date) of the candidate's most recent Commonwealth-level IT Project.
2. If project completion date is within 3 years, CPM qualification is Current; then…
3. Check PM experience to ensure it satisfies requirements for the project category in question.
4. If PM candidate is NOT currently qualified, follow "Steps to Project Manager Qualification" in section 2.9 of this standard; then, once the candidate has completed all qualification steps…
5. Check PM experience to ensure it satisfies requirements for the project category in question.