



IT Project Management Standard

Standard Type: Administrative
Responsible Office: Office of Technology Services
Initial Standard Approved: 07/01/2009
Current Revision Approved: 09/06/2017

Standard Statement and Purpose

The Information Technology (IT) Project Management Standard establishes a standardized IT project methodology for governance and management of any IT activity that meets the definition of an IT project. It is based on proven best practices promoted by the [Project Management Institute \(PMI\)](#) and is designed to assist IT project leaders in planning and managing their projects. VCU is committed to continuously improving the delivery of information technology solutions within budget, on schedule, within scope and in a way, which maximizes their contribution to the university's strategic mission.

This Standard should be used in conjunction with the documents listed in the Related Documents section.

Noncompliance with this policy may result in disciplinary action up to and including termination. VCU supports an environment free from retaliation. Retaliation against any employee who brings forth a good faith concern, asks a clarifying question, or participates in an investigation is prohibited.

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Who Should Know This Policy

All individuals involved in technology projects are responsible for knowing this policy and familiarizing themselves with its contents and provisions.

Definitions

Project

For purposes of this standard, a project covered by this standard is a temporary information technology process with an established beginning and end time that has a set of defined tasks and assigned resources, undertaken to deliver a unique product, service or result.

Project Management

For purposes of this standard, project management is the application of knowledge, skills, tools, and techniques to monitor progress, mitigate risk, control budget, and manage the scope of tasks.

Project Manager

The Project Manager is the person responsible for the management of the project from planning through closeout.

Project Portfolio Management (PPM)

Project Portfolio Management is a methodology for including IT projects as part of an overall IT investment portfolio. PPM seeks to shift away from one-off, ad hoc approaches to a methodology with a set of values and techniques that enable standardization, measurement and process improvement.

Project Sponsor

The Project Sponsor is the individual, usually part of the University's management team, who makes the business case for the project.

Contacts

VCU Technology Services officially interprets this standard. The VCU Chief Information Officer is responsible for obtaining approval for any revisions through the appropriate governance structures. Questions about this standard or its interpretation should be directed to the Project Management Office at tspmo@vcu.edu.

Standard Specifics and Procedures

The following section contains the requirements of this standard.

A. Standard Compliance

All VCU Information technology-based projects must follow the project management details contained in this standard. As improvements are identified, the documents required by this standard may be revised, and a revision history published for the required documents. Project Managers should retain a



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dated copy of project documentation. Adherence to the standard practices as of that date will constitute compliance. Alternatively, Project Managers may opt to use any revised practices incorporated into the standard after the beginning of the project, with appropriate documentation of the change.

B. Roles and Responsibilities

1. Information Technology Governance (ITG) Groups

The university's information technology governance involves the proper stewardship of IT resources on behalf of university stakeholders. Two governance groups work together to accomplish the goals of IT governance – the University Academic and Administrative Information Technology Steering Committee (UAAITSC) and the University Information Technology Executive Leadership Team (UITELT). UAAITSC members are selected from the University's investor constituencies – faculty, staff, and students. UAAITSC is charged with ensuring that only the highest quality investments in IT are pursued. From their review and prioritization of all IT projects, a recommended portfolio of IT investments is given final approval by the UITELT consisting of senior executive leaders of the university. Working together, the UAAITSC and UITELT monitor and direct VCU's investments in information technology to advance the goals of our Quest for Distinction strategic plan and to provide maximum benefits for the university community. Additional information on IT governance can be found at <https://go.vcu.edu/itgov>.

2. VCU Chief Information Officer (CIO)

The CIO serves as the chief administrative officer of VCU Technology Services. The CIO develops policies, standards and procedures for technology and project management. The CIO may direct the modification or suspension of any IT project that has not met the performance measures agreed to by the CIO and the VCU Project Sponsor, if such action is appropriate and consistent with the terms of any affected contracts.

3. Project Management Office (PMO)

On behalf of the CIO, the PMO provides management oversight and guidance for VCU's information technology investments. The PMO consults with university departments and business units to assist them with the analysis and documentation of project proposals. The PMO serves as coordinator between project sponsors and the university IT governance structure by reviewing project documentation and preparing recommendations for the CIO and the UITELT as appropriate. Other duties of the PMO include creating and managing a central repository for project information and analysis, making available the education and training required for Project Managers, and supplying the services necessary to insure the Commonwealth of Virginia requirements for project management and auditing are met.

4. Project Sponsor

The Project Sponsor is the individual, usually part of the university's management team, who makes the business case for the project. This individual usually has the authority and responsibility to define project goals, secure resources, establish project priorities, and resolve intra- and inter-organizational issues and conflicts. In addition, the Project Sponsor and Project Manager work closely to ensure that project objectives are met. Resources such as functional



subject matter experts are made available to the project and issues are resolved as expeditiously as possible. Project Sponsors should be prepared to dedicate a portion of their time on a weekly, if not daily basis, to attend to project details.

5. Project Manager

Every IT project must have a designated Project Manager. The Project Manager is responsible for the management of the project from planning through closeout. Project Sponsors will advise on the qualifications of Project Managers for their projects and Project Managers will be assigned by university management and/or the CIO. The [qualifications](#) required to manage projects escalate with the project's complexity. Only experienced and appropriately trained Project Managers will be assigned high complexity projects. All Project Managers are responsible for entering the information for their projects within the project template provided and updating that information as required by their project's classification. It is recommended that Project Managers use Smartsheet to manage their projects, since work performed there can be readily shared with the [VCU Portfolio Manager \(PortMan\)](#) application. They must also regularly report project status in accordance with the published schedule for their project's complexity level.

The Project Manager is responsible for complying with the current university Project Management Standard and taking the actions needed to ensure the success of the project. This begins when a project is initially proposed and continues through its evaluation, execution and control, and closeout phases. At minimum, the Project Manager:

- along with the Project Sponsor determines the complexity of the project and prepares documentation that is appropriate to the complexity of the project as detailed in the Project Management section of this standard
- plans and monitors the execution and control phase using methods appropriate to the complexity of the project
- obtains appropriate agreement that the project's goals and objectives have been met and performs closeout duties as required. The Project Manager is required to store and update the project's documentation and plan in the University's central repository (PORTMAN) or in a similar fashion locally. The Project Manager is required to provide evidence that all required PM activities have been documented and to make them available during any internal or APA audit.

D. Project Management Methodology

[VCU's IT Project Planning Template](#) outlines the standard project management process with further details on specific techniques and requirements for each level of project complexity. The methodology is closely aligned with the lifecycle an information technology project typically undergoes. The lifecycle is comprised of four distinct yet often overlapping phases. Each phase has at least one deliverable due which marks the end of the phase. The four phases of a project's lifecycle are the proposal phase, the planning phase, the executing/controlling phase, and the closing phase. As stated, the phases are



distinct and sequential but can have significant overlap and reiteration during an actual project's lifecycle.

VCU IT projects are categorized based on the size of the budget, resources involved, duration of the project, and level of risk. Accepted projects will be categorized at one of these levels:

- Fast Track
- Low Complexity
- Medium Complexity
- High Complexity

The amount of oversight and documentation required is directly related to and increases with project complexity. The operational controls, documentation, and tracking required for IT Projects of fast track, low, medium and high complexity are identified and available on the PMO web site in the [VCU IT Project Planning Template](#). In general:

- **Fast track projects** require only basic documentation with minimal control and tracking information.
- **Low complexity projects** also require complete planning but less documentation and fewer control processes are needed to deliver the project product or service as specified in the project scope.
- Although **medium complexity projects** require thorough planning, typically less documentation and control processes are needed to deliver the project product or service as specified in the project scope.
- **High complexity projects** are typically lengthy to implement, high risk and/or high dollar value projects, requiring extensive integration and stringent control processes. The nature of high complexity projects drives the requirement for extensive planning, documentation, and strictly enforced change and configuration management processes.

The following table outlines the characteristics of projects with fast track, low, medium, or high complexity.

	Fast Track	Low Complexity	Medium Complexity	High Complexity
Project cost	< \$10,000	\$10,000 to \$100,000	\$100,000 to \$500,000	> \$500,000
Project team members	1 to 3 (one organization)	2 to 10	11 to 25	25 or more
Project duration	< 2 weeks	2 to 6 weeks	6 weeks to 1 year	> 1 year
Technology in project	Familiar or experts	Familiar or experts	New to VCU	New to world



Number of VCU systems the solution interfaces	1 or none	2 to 3	4 to 5	> 5
Production IT system disruption	None	< 2 hours, outside of business hours	< 4 hours, outside of business hours	> 4 hours, within business hours
Business process change(s)	None	1 to 2	Several processes within single department	Several processes across multiple departments
Mission critical scope	Not at all	1 department only	Several departments	VCU-wide

A project Independent Verification & Validation (IV&V) is required for all high complexity projects over \$1,000,000 or the threshold as cited in VCU’s Tier III management Agreement with the Commonwealth of Virginia. For these types of projects, Project Managers are required to include a review of the technical, financial, and management aspects of the project and will establish scheduled IV&V reviews and reports as follows:

- at completion of the detailed project plan and before project execution
- one in-progress review during project execution
- at project closeout to validate the success of the project

Project Managers must develop a comprehensive plan for the project and will incorporate the IV&V schedule in the plan. Project Managers will have direct interface with the IV&V providers and will utilize the findings and recommendations in managing the project. The Project Manager will coordinate contracted vendor review and responses to IV&V findings as appropriate.

Qualified IV&V Service Providers will have experience and training in verification and validation audits commensurate with the scope and nature of the project. The IV&V Service Providers must be completely independent and have a separate budget and line of responsibility from that of the Project Manager. All IV&V Service Providers must be free of any conflict of interest in a project where they provide IV&V contracted support. All IV&V findings must be saved within the Project Manager’s documentation set and sent to the Project Management Office (PMO) at tsppmo@vcu.edu.

Projects less than \$1,000,000 in cost may also use IV&Vs, but they are not required and do not have the restrictions presented above. These may be especially beneficial at the completion of the Project Manager’s project plan and before project execution. All IV&V findings must be saved within the Project Manager’s documentation set and sent via e-mail to tsppmo@vcu.edu where they are added to a central IV&V drive folder managed by the PMO.

E. Project Management Approaches: Traditional and Agile

While the VCU IT Project Planning Template provides an overview of the artifacts and knowledge areas a project should focus on, it does not provide instructions on the approach to achieve those results. Project deliverables can be met in either a traditional waterfall or agile manner. While the traditional methodologies espoused by PMI favor a stair step or waterfall completion pattern as shown in Figure 1,



PMI also recognizes an iterative approach throughout the project known industry-wide as agile project management.

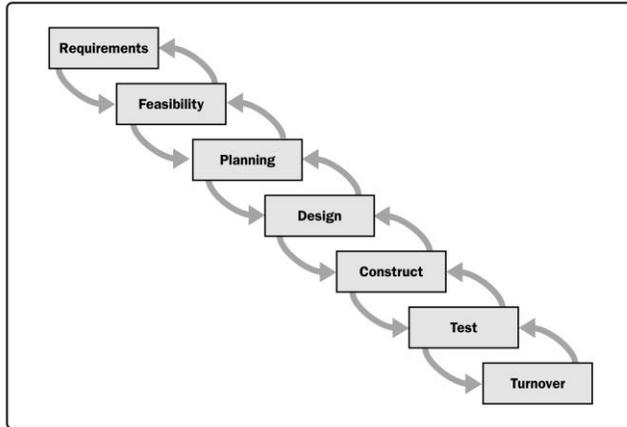


Figure 1

Agile tends to emphasize tight iteration loops throughout the process, eschewing tight adherence to a plan that was developed while project knowledge was low. This concept is not lost even on traditional project management methodology descriptions, as you can see the inherent loops in the planning and executing project phases as seen in Figure 2. Agile approaches emphasize the necessity to constantly adjust the project plan throughout the execution of the project.

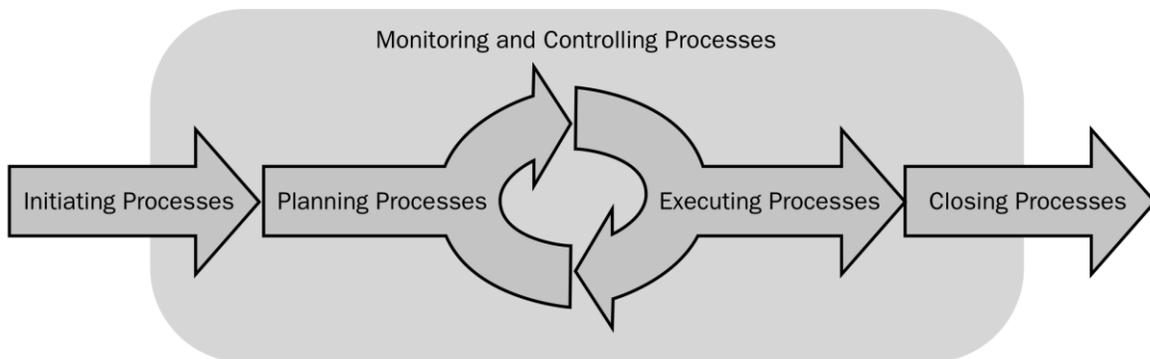


Figure 2

Agile frameworks like Scrum, Kanban, and XP (extreme programming) are often most effective when:

- The project customer is willing to be heavily involved throughout the project
- The final product is difficult to describe in a comprehensive manner before the project begins
- The project team is willing and able to change course quickly to adapt to changing business needs during the lifecycle of the project

F. Project Portfolio Management (PPM)

Project Portfolio Management (PPM) is one of the requirements established for Information Technology in Tier III institutions by the Higher Education Finance and Operations Restructuring Act.



Proven PPM best practices will be applied toward the goal of maximizing the total value of all projects undertaken. A project portfolio seeks an optimum mix to maximize return and minimize risk. VCU's information technology governance process evaluates all projects over \$50,000 based on their contribution to the university's goals and objectives and their value to the IT Strategic Plan, relative to their cost and risk, projects with the highest return/risk ratio will be given top priority. The process begins with project selection wherein project proposals are analyzed and ranked based on project costs, benefits, and risks. The university's information technology governance (ITG) groups make investment decisions on which projects to propose for funding, and which mix of projects will best meet strategic university goals. Once projects have been selected, the ITG groups monitor the execution of those projects through periodic reviews of project progress against established cost, schedule, and performance baselines. The last phase is the evaluation phase where actual results are compared against planned measures of success, and the business value achieved and actual return on the investment is determined. Lessons learned during the evaluation phase provide feedback for future selection and control processes related to improving PPM. For more information on VCU's information technology governance and portfolio management, go to the IT governance website at <http://www.itgovernance.vcu.edu/>.

G. IT Project Auditing

The university will participate in periodic audits of VCU's project management program and projects. Commonwealth's Auditor of Public Accounts in conducting such audits. Independent Verification and Validation of IT projects will be conducted following guidelines appropriate to the level of project complexity and risk.

Forms

There are no forms associated with this Standard.

Related Documents

The [VCU IT Project Planning Template](https://ts.vcu.edu/askit/policies-and-publications/project-management-office/) is located on the Project Management Office website (<https://ts.vcu.edu/askit/policies-and-publications/project-management-office/>). This template contains a project complexity assessment, operational controls, documentation, and tracking required for IT projects of high, medium, low, or fast track complexity.

Gartner presentations covering PPM strategy, objectives and techniques:

- [High Performance PPM: Making It Work](#)
- [Strategic Engagement & Business Alignment: The Importance of PPM in IT Governance](#)

The **VCU Information Technology Policy Framework** (<https://ts.vcu.edu/askit/policies-and-publications/information-technology-policies-standards-baselines--guidelines/>) contains VCU information technology policies, standards, and baseline requirements, all of which must be followed in conjunction with this standard.



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Baseline documents can be found in the VCU University Computer Center IT Professionals Intranet under Security Baselines. Access to the IT Professionals Intranet requires approval. Requests for access can be made via email to uccnoc@vcu.edu. See specifically:

1. [Computer Network and Resources Use Policy](#)
1. [Information Security Policy](#)
2. [Exposure and Breach of Information Policy](#)
3. [Network Management and Security Standard](#)
4. [Records Management Policy](#)

Revision History

This Standard supersedes the following archived policies and standards:

<i>Date</i>	<i>Title</i>
July 1, 2009	Project Management Standard

FAQ

There are no frequently asked questions for this standard.