INFORMATION TECHNOLOGY

TEXAS TECH
Administration & Finance

INFORMATION TECHNOLOGY PROJECT MANAGEMENT PRACTICES GUIDE

INSTITUTIONAL ANNEX

Version 1

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Section 1. Introduction

1.1 Purpose Of The Institutional Annex

The Information Technology Project Management Practices Guide (ITPMG), adopted by reference through TTU OP 52.06, Project Management Practices, documents the general processes and practices to be used in managing information technology (IT) projects for all Texas Tech University System institutions.

While the ITPMG provides high level project management guidance, each Texas Tech institution may develop an annex to detail any processes or specify additional instructions for procedures that are only applicable to the individual institution. The TTU IT Project Management Practices Guide Institutional Annex (TTU Annex) documents the processes and practices to be used in managing IT projects at Texas Tech University. Notwithstanding the procedures and processes defined in the ITPMG and the TTU Annex, all projects must still comply with established University policies and procedures.

1.2 Statutory Requirement

The Texas Government Code (TGC) §2054.151, Subchapter G, Project Management Practices, and the Texas Administrative Code (TAC) §216 Subchapter C, Project Management Practices For Institutions Of Higher Education both require that all projects must be managed using standardized project management practices to ensure the project's successful completion on time, within budget, and meet its projected requirements.

Additionally, in accordance with TGC §2054.161, Data Classification, Security, And Retention Requirements, all data produced from or used in IT projects must be classified in order to determine the appropriate data security and retention requirements. (See the IT Information/Data Classification security policy for more details on data classification and TTU OP 10.10, Records Retention, for the University's retention schedule.)

1.3 Exceptions To The Use Of The TTU Annex

All TTU IT projects will follow the project management processes outlined in this Annex. However, "major information resources projects" meeting the criteria defined in Texas Government Code, §2054.003(10) shall follow the Texas Project Delivery Framework (Framework) as defined by Department of Information Resources (DIR). Refer to the ITPMG for more details.

While not required, non-IT projects may also use the processes and procedures outlined in this Annex as a general project management best practice.

Section 2. IT Project Management

2.1. Governance

The TTU IT Portfolio Management Office (PMO) was established to formalize and standardize project management practices and provide structured oversight for technology initiatives at TTU. The PMO is responsible for implementing the project management practices as outlined in this Annex to ensure all project requests are aligned with state regulations and the institution's strategic priorities.

As the Institution's liaison to the State on IT matters, the Chief Information Officer (CIO) is the final authority on all decisions regarding IT matters at TTU, including project management.

2.2 Project Request

2.2.1 What Is A Project?

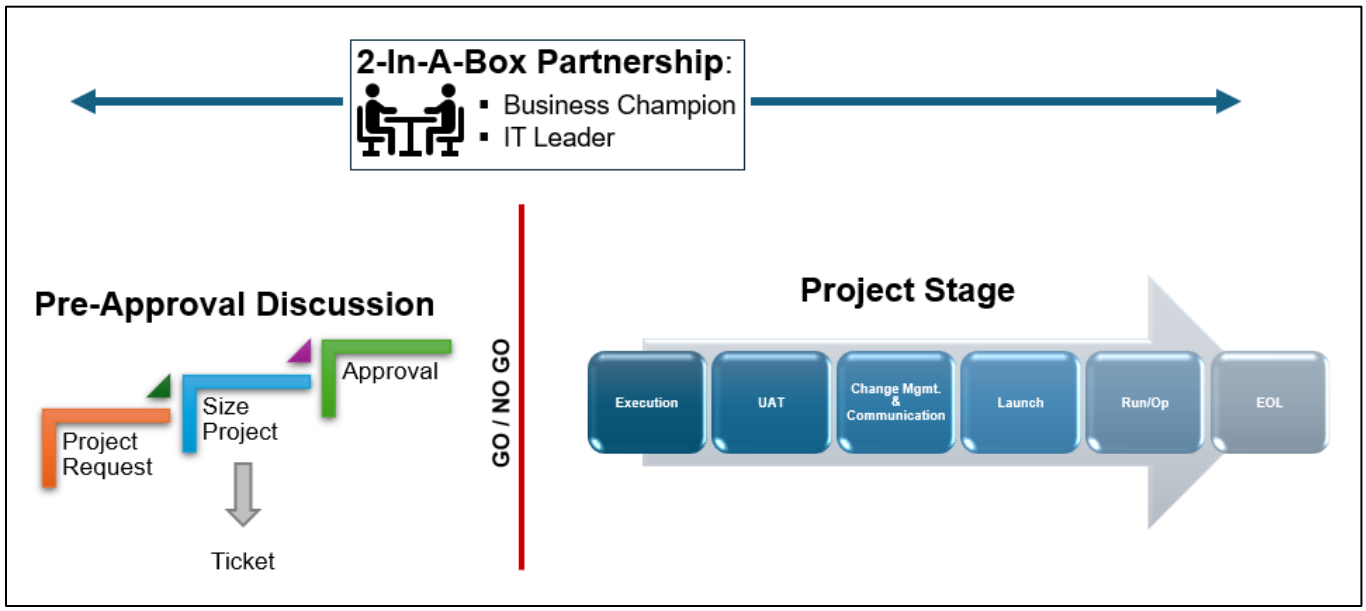
Projects are often different and separate from daily operational tasks. It is a short-term effort with defined scope, objectives, deliverables, and timeline to produce a distinct outcome.

2.2.2 Project Request Submission

To submit a project request to the PMO, go to the askIT platform, the official intake system for all IT-related requests. The PMO will review the request and reach out to the requester within 5 – 7 business days to gather more information and discuss next steps.

2.3 Project Request Review

IT's collaborative project management model utilizes the 2-In-A-Box partnership for decision-making and regular communication. This ensures the requester is involved throughout the entire process from the pre-approval discussions to the actual project stage as illustrated in the diagram below.



2.3.1 Discovery

As part of the discovery process, the PMO will work with the requester to build out the business case for the project request. This includes establishing alignment with TTU's strategic priorities, identifying funding, clarifying objectives, and determining the project's impact on matters such as enrollment, revenue, and research.

2.3.2 Committee Reviews

After the PMO completes the information gathering, the request will be presented to an internal PMO Steering Committee to determine whether it meets the criteria for a formal project and to size it.

2.3.2.1 Project Sizing

A request can be classified into one of three project sizes.

	SMALL	MEDIUM	LARGE
Duration	1 – 3 months	3 – 6 months	6 – 24 months
Stakeholder	Single	Multiple	Multiple
Team Size	▪ Single team	▪ Some cross-team work	▪ Requires cross-team work
Complexity	▪ Low technical complexity ▪ Minimal changes to existing processes or environment ▪ Tasks are routine or familiar	▪ Moderate technical complexity ▪ Some changes to existing processes or environment ▪ Some unfamiliar tasks	▪ High technical complexity ▪ Major changes to existing processes or environment or creates new processes or environment ▪ Novel work with high difficulty
Risk	Low	Moderate	High
Cost	< $100K	$100K - $500K	$500K+

Note: for projects that fall under multiple sizing criteria, the bigger classification will be selected.

A secondary review is conducted by the Project Review Board (PRB), which is made up of representatives from all the TTU leadership areas. The PRB will focus on evaluating the project objectives and prioritizing the project, taking into account the current load of active projects, business impact of the project request, and funding, among other considerations.

2.4 Initiation

After a project request has been approved by both the PMO Steering Committee and the PRB, the project's work begins in earnest. Project initiation marks the formal beginning of a new project.

During this phase, the project's objectives, scope, and overall purpose are further defined and clarified to ensure alignment with organizational goals.

The project management methodology is also decided in this phase. Projects can be managed using the long-established Waterfall method, the software development-focused Agile approach, or a combination of methodologies. Some projects may benefit from a mixed methodology as the various tasks within that project are better suited to be managed differently.

The Initiation Phase for the Waterfall method typically includes:

- Estimating Effort: Consult with a Subject Matter Expert (SME) to develop a high-level estimate of the work based on the project request.
- Developing A Resource Plan: Identify and allocate the necessary workforce and funding required to support the project's objectives. This includes assigning roles, estimating time commitments, identifying stakeholders, and ensuring availability of key personnel.
- Establishing A Communication Plan: Define how information will be shared among stakeholders and the rest of the campus community throughout the project lifecycle. The plan should include communication methods, frequency, reporting formats, stakeholder responsibilities, and escalation protocols to ensure transparency and alignment.
- Conducting A Project Kickoff Meeting: This meeting with all key stakeholders and project team members is to review the project details and objectives, establish roles, confirm expectations, and officially launch the project.

The Initiation Phase for the Agile method typically includes:

- Defining Business Need: Identify the problem or opportunity driving the project. This may include reviewing current business challenges, specific issues, or regulatory requirements.
- Identifying Key Stakeholders And Product Owner: Determine who needs to be involved in the project (stakeholders) and who will be the decisionmaker (Product Owner).
- Developing A Product Roadmap And High-level Backlog: Create a plan for the major deliverables for each sprint (roadmap) or identify a list of all desired deliverables (backlog) with enough details to help the project team plan and prioritize their work.
- Forming The Agile Team: Gather the various developers, designers, analysts, and engineers with the necessary skills necessary for the project.

2.5 Planning

The Planning Phase is where the bulk of the preparatory work happens. This includes defining a meeting cadence, project timeline, and finalizing the various plans developed during the Initiation Phase.

The Planning Phase for the Waterfall method typically includes:

- Establishing A Recurring Meeting Cadence: Set up regular meeting times to discuss issues or questions, update the project team, and track the project progress.
- Developing The Project Plan: Create a blueprint for executing the project that outlines the key milestones, task dependencies, durations, and responsible parties.
- Finalize The Communication Plan: Confirm how and when project status updates will be shared with stakeholders, including content and format.

- Document Risks And Issues: Identify and document Risks, Issues, Decisions, Actions, and Changes (RIDAC) in a centralized log in order to facilitate management and timely resolution.

The Planning Phase for the Agile method typically includes:

- Developing A Prioritized Product Backlog: Collaborate with stakeholders and the Product Owner to identify all features, enhancements and other requirements for the product, organizing them in a prioritized list based on business value and needs, risk, and dependencies.
- Sprint Planning: Agile developers plan the required work to achieve the desired roadmap features. User stories are created to break down features into work increments that are typically timeboxed into 2-week sprints.
- Defining The Acceptance Criteria: The agile team and the Product Owner must agree on the conditions that indicate the work is completed and the resulting product is accepted as having met the requirements, also known as the definition of done.

2.6 Execution

The Execution Phase is where the project plan is put into action. This involves coordinating people and resources, managing tasks, and ensuring the work is completed according to scope and schedule. Project managers also monitor the progress to identify any variances from the project plan and, if necessary, employ corrective action to ensure the project remains on track and prevent scope creep. The specific tasks performed during this phase will vary depending on the project requirements but close collaboration between all project team members and stakeholders are expected to ensure the requirements and objectives are met.

2.7 Closing

The Closing Phase marks the formal completion of the project. It is the responsibility of the project managers to ensure that all project activities are completed and documentation is finalized. Also, it is critical to ensure a smooth transition from the project team to operational support to ensure continuity and minimize disruption.

The Closing Phase for the Waterfall method typically includes:

- Finalizing RIDAC Log: Review the project's Risks, Issues, Decisions, Actions and Changes to ensure all items have been addressed, resolved, and documented.
- Conducting A Debrief And Developing a Project Closure Report: Facilitate lessons learned meeting with the project team and key stakeholders to reflect on what went well, identify areas for improvement, and document actionable insights for future projects. After this debriefing, project managers will develop a formal closure report capturing key achievements, metrics, deliverables, and outstanding items (if any) for leadership and stakeholders.
- Initiating Knowledge Transfer From Project Team To Support Team: The project team shares key technical and functional documentation, system configurations, known issues, and resolution steps with the designated support team.
- Celebrating Project Completion: Acknowledging the efforts and contributions of the project team and celebrating their success boosts morale and strengthens the collaborative culture.

The Closing Phase for the Agile method typically includes:

- Conducting Last Sprint Review And Finalizing Product Delivery/Acceptance: Conduct a comprehensive review of the final sprint to demonstrate to the stakeholders that all deliverables meet the agreed-upon acceptance criteria. This allows all parties to confirm that the product aligns with the stated project goals and objectives and to officially hand over the final product to the stakeholder(s).
- Deploying To Production: The final product is officially deployed into the production environment, carefully coordinating the deployment to minimize disruption to end-users.
- Conducting A Project Retrospective: Hold a meeting with the project team and stakeholders to review what went well, what could have been improved, and key lessons learned throughout the project.
- Releasing Documentation And Ensuring Knowledge Transfer: Finalize and distribute all project documentation, including user manuals and technical documentation. Conduct a thorough knowledge transfer to the operational/support teams to maintain continuity and facilitate smooth ongoing support and maintenance. After this, the agile team may be disbanded.

Section 3. Project Registration

To ensure compliance State requirements and University policies, TTU IT developed the IT Project Registration application to document the various technology projects at Texas Tech University. While not all technology projects will need TTU IT involvement, in accordance with OP 52.06, all technology projects at TTU must be registered.

Registering the projects will provide an opportunity to review the project requirements and ensure that they comply with applicable federal, state, and local laws, and Institutional policies, while mitigating any potential security and integration issues. The registration includes a series of questions designed to capture information about the project, including but not limited to project status, project partners and beneficiaries, cost, and system integrations. A sample form is provided within the application to assist with planning and information gathering.

Section 4. Appendix

Definitions

Agile	This term describes a mindset of values and principles as set forth in the Agile Manifesto for software development. The Agile approach breaks down a project into smaller efforts called iterations or sprints and relies on collaboration and continuous improvement. Two subsets of the Agile methodology include: ▪ Scrum: the framework for developing and sustaining complex products, with specific roles, events, and artifacts. Scrums often consist of brief collaboration meetings during which the project team reviews its progress from the previous day, declares intentions for the current day, and highlights any obstacles encountered or anticipated. ▪ Kanban: method inspired by the original Kanban inventory control system and used specifically for knowledge work. This method uses a visualization tool that shows work in progress to help identify bottlenecks and overcommitments, thereby allowing the team to optimize the workflow.
Backlog	Prioritized list of features or tasks compiled from project requirements.
CIO	Chief Information Officer
DIR	Department of Information Resources
ITPMG	IT Project Management Guide
PMI	Project Management Institute
Product Owner	Typically, the decisionmaker representing the customer's needs to the project team.
PRB	Project Review Board
Project	As defined by Texas Government Code §2054.003(12), a project is "an initiative that (A) provides information resources technologies and creates products, services, or results within or among elements of a state agency; and (B) is characterized by well-defined parameters, specific objectives, common benefits, planned activities, a scheduled completion date, and an established budget with a specified source of funding." According to the Project Management Institute (PMI), a project "is a temporary endeavor undertaken to create a unique product, service, or result." It contains "structured tasks, activities, and deliverables that are carefully executed to achieve a desired outcome."
RIDAC	A document to track project Risks, Issues, Decisions, Actions, Changes.
Roadmap	A document that outlines a project's milestones, key deliverables, and timelines, providing an overview of the project's goals.

Sprint	Fixed periods of work typically lasting between two to four weeks.
Stakeholder	An individual or group with an interest in a project and are usually impacted by the outcome of the project.
TAC	Texas Administrative Code
TGC	Texas Government Code
User Story	A brief explanation of a product feature written in plain language from a user perspective.
Waterfall	This is a project management methodology in which the project scope, time, and cost are determined in the early phases of the life cycle. The Waterfall methodology is a linear project delivery approach whereby a project is sequentially planned and executed in phases resembling a waterfall with one phase cascading to the next.

Important URLs
TTU OP 52.06, Project Management Practices: https://www.depts.ttu.edu/opmanual/OP52.06.php

Texas Administrative Code §216, Subchapter C, Project Management Practices For Institutions Of Higher Education:
https://texas-sos.appianportalsgov.com/rules-and-meetings?chapter=216&interface=VIEW_TAC&part=10&subchapter=C&title=1

Texas Government Code, Subchapter G, Project Management Practices
https://statutes.capitol.texas.gov/Docs/GV/htm/GV.2054.htm#2054.151

Statewide Project Management:

- Project Management Essentials (for technology projects under $5 million)
  https://dir.texas.gov/technology-policy-and-planning/digital-project-services/project-management-essentials-pm-essentials

- Project Delivery Framework (for major information resources projects):
  https://dir.texas.gov/technology-policy-and-planning/digital-project-services/project-delivery-framework