PROJECT MANAGEMENT TECHNIQUES FOR EVERYONE / ANYONE

Introduction

- **Session One, 2/11**
  - Value of Project Management @ BC
    - Michael Bourque, Vice President, Information Technology Services
  - Project Management Techniques
    - Patricia Armstrong, PMP (ITS, Lead Project Manager)

- **Session Two, 2/18**
  - Project Management Techniques
    - Patricia Armstrong, PMP (ITS, Lead Project Manager)
  - Project Management Application in BC Departments – Panel discussion:
    - CTE, Development, Student Affairs, and ITS
BIO

- Patricia Armstrong, PMP
  - IBM
    - Executive Project Manager, IBM Global Services, 14 yrs
    - Portfolio Manager, IBM Global Services, 2 yrs
  - Boston College
    - Consultant, ITS PMO, 3 yrs
    - Lead Project Manager, ITS PMO, 3 yrs

Agenda

- Introduction
- Project Management Overview
- Project Management Concepts
- Project Management Techniques
- BC Technology Hints & Tips
- Summary
- Q&A
Overview – Project

- What is **project management**?
  - Application of knowledge, skills, tools and techniques to project activities to meet project requirements

- What is a **project**?
  - A “temporary endeavor undertaken to create a unique product, service or results”
    - Definite beginning & end
    - Team is formed & reassigned at completion
    - Vs. operations – ongoing, repetitive

Overview – Project Manager

- What is a **project manager**?
  - The person assigned to achieve the project objectives

  ..........In most cases – YOU

  - A role not necessarily a job
Project Management Profession

Project Management Institute (PMI®)
- World’s leading not-for-profit association for the project management profession (40+ yrs)
- Membership / local chapters
  - Mass Bay & Central Mass (MA)
  - Ocean State (RI), Southern New England (CT)
  - New Hampshire & Greater Monadnock (NH)
  - Maine Chapter (ME), Champlain Valley (VT)
- Credentials / Certifications
  - Program Management Professional (PgMP®)
  - Project Management Professional (PMP®)
  - Certified Associate in Project Management (CAPM®)
- www.pmi.org

Overview – Project Challenges

- Why are projects challenging?
  - Unique, something new, no blueprint
  - Sometimes difficult to define – what is it, when does it end
  - Working with people
  - Too much to do, too little time
  - As soon as you start, something changes

“If you don’t know where you’re going, then any road will get you there”

Alice in Wonderland
Overview – PM Importance

- Why is project management important?
- Why do we need project managers or people who can manage projects?
  - to address the previous challenges
  - to get the required work done as quickly and efficiently as possible

The value from a project is achieved at the **END**

Concepts – Management

Project Management vs. General Management
Concepts – Project Lifecycle

Project Management Processes

1. Initiating
2. Planning
3. Executing
4. Controlling (and monitoring)
5. Closing

Concepts – Project Processes

Where is time typically spent?

1. Initiating 10%
2. Planning 85%
3. Executing 5%
4. Controlling (and monitoring)
5. Closing
Concepts – Project Processes

How time should be spent!

1. Initiating  10%  20%
2. Planning    85%   70%
3. Executing   5%    10%
4. Controlling (and monitoring)
5. Closing

Concept – Triple Constraint

Change in one side MUST affect another side (or both)
Techniques – Overview

Definition: “a body of technical methods”, “a method of accomplishing a desired aim”

- One size does NOT fit all – tailor to project size / complexity
- Just enough PM – not a burden or impediment to achieving your end goal (project’s objective)

Concepts – Project Lifecycle

Project Management Processes

1. Initiating
2. Planning
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5. Closing
Techniques – Project Charter

Start the project – document ‘hallway’ conversation

- Project Charter / Project Definition / Business Case
  - What are you doing?
  - What are you NOT doing?
  - Why are you doing this?
  - How will you know when you’re done!

- Project Kickoff

Initiation – Project Charter

- Overview
- Goal
- Objectives
- Benefits
- Success Criteria
- Approach
- Assumptions
- Constraints
- Scope (in / out)
- Stakeholders
- Risks
- Milestones
- Communications
- Approval
Project Charter – Template

1. **Initiating**
2. **Planning**
3. **Executing**
4. **Controlling (and monitoring)**
5. **Closing**
Techniques – Project Planning

Expand Project Charter to greater detail

- How are you going to complete your project?
  - What steps or actions are required
  - What resources are required
  - What is the timeline
  - What is the cost
  - What might derail you

A goal without a plan is just a wish
- Larry Elder

Planning – WBS

What steps or actions are required?

- Work Breakdown Structure (WBS) – high-level tasks
  - Addresses total scope of project
  - Divides work into manageable components
  - Scope decomposition – start at the end
  - Hierarchical depiction

- Sequence Tasks (predecessors)
WBS – Example

Planning – Resource Plan

What resources are required?

- Resource Plan (project team)
  - Roles
  - Skill set
  - Timeframe – start / end date
  - Demand – full-time vs. part-time (fte)

Defines what skills are needed when - and ultimately who
Resource Plan – Example

Planning – Project Schedule

What is the timeline?

- Project Schedule – MS Excel (.xls) or Project (.mpp)
  - Task
  - Resource
  - Start Date & End Date (duration)
  - Dependencies

Resolves constraints based on WBS, activity sequence / duration, and resource plan; defines critical path
Project Schedule – xls Example

Sample High-Level Project Plan

<table>
<thead>
<tr>
<th>Task</th>
<th>Planned start date</th>
<th>Planned finish date</th>
<th>Resource requirements</th>
<th>Resource managers consulted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/Analysis, System Design and Development</td>
<td>7/1/2006</td>
<td>8/31/2006</td>
<td>2 Ent sys developers - 2 mon each; 1 DBA - 5 mon</td>
<td>Enterprise Mgr, DBA Mgr</td>
</tr>
<tr>
<td>Installation of new hardware and software</td>
<td>9/1/2006</td>
<td>9/22/2006</td>
<td>1 System admin - 5 mon; 1 DBA - 70 mon</td>
<td>Sys Admin Mgr, DBA Mgr</td>
</tr>
<tr>
<td>Common components—prototype development and unit testing</td>
<td>9/23/2006</td>
<td>11/7/2006</td>
<td>3 Developers - 1.5 mon each</td>
<td>Dev Mgr</td>
</tr>
<tr>
<td>OSP components—prototype development and unit testing</td>
<td>11/8/2006</td>
<td>2/22/2007</td>
<td>3 Developers - 3 mon each</td>
<td>Dev Mgr</td>
</tr>
<tr>
<td>Implementation of OSP validations and enhancements</td>
<td>2/23/2007</td>
<td>4/15/2007</td>
<td>3 Developers - 1.5 mon each at 50% of their time</td>
<td>Dev Mgr</td>
</tr>
<tr>
<td>Integration of new system with existing systems</td>
<td>4/16/2007</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other budgetary considerations

Hardware 350,000 for server to house new systems
Software No software costs; all software to be developed in-house

Project Schedule – Gantt example
Planning – Project Budget

What is the cost?

- Project Budget
  - Hard dollars ($)
    - Hardware, software, vendor / consulting services, travel
    - Funding: capital vs. operating
    - Don't forget ongoing maintenance / operating costs
  - Soft dollars
    - BC resources

Based on project schedule

Planning – Project Risk

What might derail you -- risks?

- Project Risk
  - What could happen?
  - What is the likelihood of it happening (probability)?
  - What is the impact if it did happen?
  - For high priority items, define risk strategy / approach
    - Avoid, Accept, Mitigate (Contingency), Transfer

Identify risk, action strategy & trigger (if applicable)
Project Risk – Example

<table>
<thead>
<tr>
<th>Risk #</th>
<th>Risk Description</th>
<th>Risk Probability</th>
<th>Risk Impact</th>
<th>Risk Strategy</th>
<th>Risk Response Plan</th>
<th>Risk Owner</th>
<th>Review</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Additional government legal/regulatory changes that affect 04/2019 target carding</td>
<td>M</td>
<td>H</td>
<td>Accept</td>
<td>N/A</td>
<td>05/03/19</td>
<td>N/A</td>
<td>No change</td>
</tr>
<tr>
<td>2</td>
<td>Fail to reconcile on 4/14/19</td>
<td>H</td>
<td>H</td>
<td>Contingency</td>
<td>N/A</td>
<td>06/05/19</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Limited direct lending eligibility 05/19 (due to regulatory change)</td>
<td>M</td>
<td>M</td>
<td>Integrate</td>
<td>Consult with other entities and Industry experts (Bill Evans)</td>
<td>05/09/19</td>
<td>N/A</td>
<td>No change</td>
</tr>
</tbody>
</table>

Concepts – Project Lifecycle

Project Management Processes

1. Initiating
2. Planning
3. Executing
4. Controlling
5. Closing
Techniques – Execution / Control

Implement the Project Schedule & control the project

- Manage reality
  - Scope changes, scope creep, scope misunderstandings
  - Resource changes, resource unavailability, resource skills
  - Estimates are incorrect, tasks are missing
  - Risk events occur

“No battle plan survives contact with the enemy”
Colin Powell

Project Execution / Control

- Tracking
  - Progress against Project Schedule
  - Risks

- Change Control
  - Manage change process

- Communication
  - Update team and stakeholders
Project Execution – Tracking

Implement the Project Schedule

- **Project Tracking**
  - **Schedule – % complete**
  - **Risks – monitor triggers, address new risks**
  - **Issues / Actions Log – new or missed items, items preventing task completion**

Make it happen

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### Project Issues/Action – Example

#### Issue List

<table>
<thead>
<tr>
<th>Issue</th>
<th>Issue Description</th>
<th>Assigned To</th>
<th>Estimated Date</th>
<th>Planned Date</th>
<th>Actual Date</th>
<th>Resolution/Comments</th>
<th>Current Status</th>
<th>Actual Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Actions List

<table>
<thead>
<tr>
<th>Action</th>
<th>Action Description</th>
<th>Assigned To</th>
<th>Estimated Date</th>
<th>Planned Date</th>
<th>Actual Date</th>
<th>Completion/Comments</th>
<th>Current Status</th>
<th>Actual Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Project Execution – Change

‘Manage’ the Project Schedule

- Project Change
  - Recognize change
  - Accept / manage change
  - Assess impact
  - Approve & implement change (or not)

Integrate change, update project plan, communicate revised plan

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Project Change – Example

<table>
<thead>
<tr>
<th>Change Log</th>
<th>Change Description</th>
<th>Change Assessment / Impact</th>
<th>Approved By</th>
<th>Change Edition</th>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Core Team</td>
<td>Name 3</td>
<td>TMC report to FSP - discussed 10/17 with CEO</td>
<td>10/25/10</td>
<td>Review 2</td>
<td>Approved</td>
</tr>
<tr>
<td>3</td>
<td>Core Team</td>
<td>Name 3</td>
<td>Ensure design can handle vs business will in the future. Things like feed to sales bias any AC International impact. 10/21/10</td>
<td>Review 3</td>
<td>Approved</td>
<td>10/21/10</td>
</tr>
<tr>
<td>4</td>
<td>Core Team</td>
<td>Phase 2: Need to update effective data for the data warehouse used 1/17, required for historical report. 10/21/10</td>
<td>Review 3</td>
<td>Approved</td>
<td>10/21/10</td>
<td>Core Team 5</td>
</tr>
<tr>
<td>5</td>
<td>Core Team</td>
<td>10/13-17 per B Reporting, discussed with Asia Key Report, excel file incl. reconciliation contribution / available/Information 1/11</td>
<td>10/21/10</td>
<td>Review 3</td>
<td>Approved</td>
<td>10/21/10</td>
</tr>
<tr>
<td>6</td>
<td>Core Team</td>
<td>10/13-17 per B Reporting, discussed with Asia Key Report, excel file incl. reconciliation 1/22/10 1/21/10</td>
<td>10/21/10</td>
<td>Review 3</td>
<td>Approved</td>
<td>10/21/10</td>
</tr>
</tbody>
</table>
Project Execution – Communications

Keep the team & stakeholders informed

- Project Communications
  - Stakeholders – manage expectations, tailor message
  - Meetings – effective (agenda, monitored, summary)
  - Email – targeted and tagged
  - Files – standard naming convention
  - Reporting – status reports

The right information at the right time to the right people

Project Status – Example

Exchange Implementation Project
Monthly Status Report

<table>
<thead>
<tr>
<th>Project Manager</th>
<th>Name S</th>
<th>Date Created</th>
<th>3/31/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Period</td>
<td>From 03/01/10</td>
<td>To 03/31/10</td>
<td></td>
</tr>
</tbody>
</table>

Project Health: Places an “X” in the appropriate box for the overall health of the project.
- Green: Project is on track
- Yellow: Issue or problems may impact completion date, cost, or scope
- Red: Project won’t be completed by scheduled date, will exceed projected cost, or won’t meet established scope

Health Indicators: Provides key sentence regarding the overall health of the project:
- The overall health of the project to meet Q1/2 targets is on schedule to complete migrations by June 30th.
- Successfully migrated 24% of 1303 users (55%)

Accomplishments: List the accomplishments that have been completed since the last status report:
- Performance adequate exchange migrations in week - (Sunday and Tuesday evenings)
- Purchased additional managed services software in test - additional functionality for Q2/3

Next Steps: List the activities that will be completed by the next status report:
- Continue to prepare and perform final weeks exchange migrations
- Test and install Exchange’s OMS 2.0 in production before academic migrations and launch

Issues/Findings: List any outstanding items of concern as well as any essential information that may interfere with achieving the project goal.
- None

General Comments: Enter any important remarks/observations relevant to the project and its status:

Key Project Milestones
- Project Start: 1/19
  - Phase 1: Implementation: Jan – May 09
  - Phase 2: Rollout: June – Nov 09
  - Steady State Rollout: Jan – Oct ’10 - 500/week, Mar & Wed
  - Target Project Completion: 6/30/10

Project Meetings:
- Weekly, Tue, 7:15

Project Repository:
- Project Repository (internal): http://са.b.a/u/c/В/75/Щ/Щ/Щ/Projects/Exchange/
- Exchange Website (external): http://vtcompressor.com/
Food for Thought

- If it’s not written down, it does not exist
- Murphy is alive and well
  - If something can go wrong, it will
- And so is O’ Malley (alive & well)
  - If it can’t possibly go wrong, it will
- ‘No news’ is not necessarily good news
- Warning: dates in the schedule are closer than you think
- A project becomes one year late, one day at a time

“If you fail to plan, you are planning to fail”
Benjamin Franklin
Introduction

- Session One, 2/11
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Agenda

- Introduction
- Project Management Overview
  - project, project management, project manager
- Project Management Concepts
  - project challenges, triple constraint
- Project Management Techniques ← we are here
- BC Technology
- Summary
Concepts – Project Lifecycle

Project Management Processes

1. Initiating
   - Charter
2. Planning
   - WBS, Resources, Schedule, Budget
3. Executing
4. Controlling (and monitoring)
   - Track, Change Management, Communicate, Communicate

2. Closing

Techniques – Project Close

Achieved your project’s objective

- Project Transition
  - To support / operations
- Project Closeout
  - Lessons learned / continuous improvement
  - Celebration / thank you

Insanity: doing the same thing over and over again and expecting different results

attributed to Albert Einstein
Close – Project Closeout

- Project Summary
  - Description, size, complexity, resources
- Metrics: baseline vs. actuals (variance)
  - Schedule, cost, scope and variance explanation
- Lessons Learned
  - PM Project Lifecycle
  - Process and product related
- Project Repository
- Outstanding Tasks

Project Closeout – Examples
Project Repository - Google Drive

- Folder-like place to share project information
  - Google Docs (~ word)
  - Google Sheets (~excel)
  - Google Slides (~power point)
  - Google Drawings (diagrams)
  - Google Forms (data collection)

- Use caution if using regulated data: bc.edu/data
- Compare Google Apps and BC Wiki
Project Repository - BC Wiki

bcwiki.bc.edu

- Web-based place to store project information
  - Space comprised of web pages, links and files
  - Flexible structure to deliver / present project data
  - Combine text and documents

- Use caution if using regulated data: bc.edu/data
- Compare Google Apps and BC Wiki

Project Communications – Gmail

- Create folders to store project-related messages
- Use labels/categories to prioritize
- Search messages quickly by sender, recipient, subject, date to find key information quickly

- Email
  - Use a consistent convention for subject lines
  - Use “To” field for calls to action and “CC” for conveying information
Project Communications – groups

- Define and share groups for/with project teams
  - Google Groups
    - Works well with Google Apps emails and sharing
  - Campus Groups
    - Works well with BC Wiki sharing and access control
  - BCPost
    - Mailing list services (listserv)

- More information on Group Email & Lists

Learn about These and More...

- ITS Training Classes – calendar and by request
  bc.edu/training

- Google
  bc.edu/googlehelp

- The Technology Help Site
  bc.edu/help
“Never allow a person to tell you no who doesn’t have the power to say yes.”

Eleanor Roosevelt

Summary

Projects, project management & you – the “project manager”

Project Techniques
- Initiating, Planning, Executing/Controlling and Closing
- 80/20 rule
- Apply just the right amount

The more you plan, the luckier you get
Attributed to Thomas Jefferson
References

- PMI®: www.pmi.org
- EDUCAUSE: www.educause.edu
- Northeast Reg Computing Pgm: www.nercomp.org
- The Boston Consortium for Higher Education: www.boston-consortium.org/
- CSOM course: Managing Projects, ISYS2255/OPER2255
- Woods course: Project Management, ADGR7708
- BC ITS PMO: bc.edu/pmo

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“Goals are dreams with deadlines”
Diana Scharf
Project Management Application
in
Specific BC Departments

Panel Discussion

- **Bryan Blakeley**
  - Associate Director, Center for Teaching Excellence

- **Susan Fonseca**
  - Sr. Associate Director, Corporate & Foundation Relations, Development

- **Carrie Klemovitch**
  - Assistant to the Vice President & Director, Office of Student Affairs

- **Denis Walsh**
  - Director, Project, Planning & Portfolio Governance, Information Technology Services
Closing Remarks

- Thank you!

- Project Management Essentials
  - Project Scope: How to Define It and Document It
    - March 17th, 9:00am to noon

- Complementary Electives
  - Managing Ourselves During Change
    - March 3rd, 9:00am to noon
  - Dealing With Conflict in the Workplace
    - March 8th, 9:00am to noon

- Evaluation Forms