Introduction to Project Management

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June 2024

AIA Continuing Education Provider

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"Project management is the planning, organizing, directing, and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives."

Eric Verzuh, *The Fast Forward MBA in Project Management*

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Five Essential Factors

1. Agreement among the project team, customer and management on the goals of the project
2. A plan that shows an overall path and clear responsibilities that will be used to measure progress during the project
3. Constant effective communication among everyone involved in the project
4. A controlled scope
5. Management support

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Five Process Groups

1. Initiating- Casting the vision
2. Planning
3. Executing
4. Monitoring and Controlling
5. Closing

June 18, 2024

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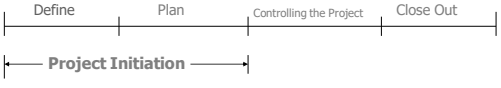
Project Lifecycle

- Define the Project
- Planning Process
- Controlling the Project
- Close out



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Define the Project

- **Identify stakeholders** – (***They are the heart of a successful project)***
  - Project Manager (define, plan, control and lead the project)
  - Project team (have skills & efforts to perform tasks)
  - Sponsor (Authority, guidance, and project priority)
  - Customer (Product requirements, funding)
  - Functional Management (policy and resources)
- **Make the Rules**

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Planning the Project

- Product Description
  - What measurable effect or product will we have at the end of the project?
- Purpose Statement
  - Why are we doing this?
- Assumptions
  - What are you assuming to be true?
- Scope Statement
  - In the active voice, state the scope of the project
- List major deliverables
  - List major deliverables

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Planning (continued)

- Quantifiable objectives
  - Measurable criteria for success
- Budget and time constraints
  - Include answers to: How fixed is the budget? How was the deadline determined? How far over budget, or how late can we be and still be successful? Do we know enough to produce reliable estimates?
- Stakeholders
  - Who are the customers? Who does this project impact? Who are the decision makers? Who has the resources to get the project?
- Organizational Chain of Command
  - Who approves the project assessment? What is the selection criteria of the different project approaches? What process will lead to an approved project assessment statement?

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Planning – Risk Management

- Identify the risks
- Develop a response strategy
- Control the risk
- Ongoing risk assessment

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Planning – Work Breakdown Structure

- Provides a detailed illustration of the project
- Monitors progress
- Creates accurate cost and schedule estimates
- Builds a project team
- Critical path

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Planning – Scheduling and Estimating

- Create the project definition
- Develop a risk management strategy and quality plan
- Build a work breakdown structure (phases of project and tasks of the phases)
- Critical path
- Identify task relationships

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Planning – Scheduling and Estimating
(continued)

- Estimate tasks
- Calculate the initial schedule
- Assign and level resources
- Critical path

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Chronology of Poor Planning

- Project initiation
- Wild enthusiasm
- Disillusionment
- Chaos
- Search for the guilty
- Punishment of the innocent
- Promotion of the non-participants
- Definition of the requirements

Jane Betterton, Instructor, UNM Continuing Education Project Mgmt

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Controlling the Project

- Make task assignments clear
- Plan individual status meetings
- Put the meetings on the calendar
- Have a kick-off meeting
- Have regular project status meetings

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Project Close Out

- Post project review agenda and guidelines
- Post project review report (including financial status)
- Client satisfaction assessment
- Project history file guidelines
- Project summary report

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Project Management at Work

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Project Management
(Deliverables by Project Phase)

1. **Define the Project**
   a. Charter
   b. Statement of work
   c. Responsibility matrix
   d. Communication plan
   e. Order of magnitude estimating guidelines

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Customer Database Course Scenario

You work at the Facilities Management Department of a large University. Your department is responsible for the operation and maintenance of all University facilities including building, grounds, landscaping, vehicles, utilities, and custodial services. The department employs about 750 employees who are responsible for more than twenty million square feet of interior space and 800 acres of land.

Currently, detailed customer information is known only by the area maintenance shops and other division managers and supervisors.

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Customer Database Course Scenario (continued)

Different divisions of the Facilities Management Department are interested in this new customer information. The Planning, Design and Construction Division needs to forecast future construction and expansion needs; Maintenance and Planning and Environmental Services divisions need to forecast staffing needs; Finance & Services would like a more accurate forecast on future revenues and expenditures, and the director and associate directors want to monitor customer service responses more closely in order to improve customer satisfaction ratings.

The director would like a detailed project plan on how you will collect, collate, and analyze this new information. The information is needed within three months. You have one month to define the plan and have the plan approved.

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Customer Database Course Scenario (continued)

For each customer, the director would like the following information:

1. Department name
2. Department size
3. Contact name
4. Buildings and spaces to be maintained and maintenance zone to which assigned
5. Type of facility
6. Building Condition (standardized)
7. Special Conditions/potential issues
8. Customer satisfaction rating
9. Projected volume of business for next year

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Assumptions

(What are you assuming to be true?)

- Staff available to do the work and follow-up
- Data must be available in electronic format for analysis
- Managers and Service Call Coordinators have the information and will cooperate.

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Product Description

(What measurable effect or product will we have at the end of the project?)

A database designed and implemented on departmental network, documenting customer information.

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Purpose Statement

(Why are we doing this?)

The director has identified the need for enhancing customer service at campus level and within the department for improved response and customer service.

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Scope Statement

(In the active voice, state the scope of the project, including what is not part of this project when appropriate)

- Collect existing customer information from coordinators and managers and design/implement a central departmental database to house customer information based on input from service call coordinators, finance, and work control (work order records)
- This project provides basic reports for customer information. Customized reports for individual divisions will be evaluated in the next phase.

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Organizational Chain of Command

(Who approves the project assessment, what is the selection criteria of the different project approaches, what process will lead to an approved project assessment statement?)

- Director approves project assessment before project begins
- Changes are requested through the project manager and,
  - If changes do not impact schedule, project manager approves,
  - If changes impact the schedule, the director's approval is required

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Stakeholders

(Who are the customers, who does the project impact, who are the decision makers, who has the resources to get the project?)

- **External**
  - Customers, suppliers, University administration
- **Internal**
  - Director
  - Associate Directors
  - Maintenance and Environmental Services managers/supervisors
  - Service Call Coordinators/customer support staff

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Deliverables - Responsibility Matrix

	Director	Project Manager (Administrative Coordinator)	IT Manager/Staff	A/D Finance and Admin	A/D Maintenance & Planning	Office Manager	Service Call Coordinators	Area Managers
Project plan defined	I, R,S	Rp	P, I	P, I	P, I	I, P	I	I
Data requirements defined	I, R, S	Rp, R	P, I, R	P	P	P		
Collection procedures defined								
Data collected								
Database prototype built								
Database prototype tested								
Prototype approved								
Database training requirements defined								
Database entry completed								
Database On-line								

P=Participant, Rp=Responsible, R=Review required, I= Input required, S=Sign-off

January 2011

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Communications Plan

	Director	Project Manager (Administrative Coordinator)	IT Manager	A/D Finance and Admin	A/D Maintenance & Planning	Office Manager	Service Call Coordinators	Area Managers
Project Plan Cost Report	W	D	D	D	D	D		
Project Plan detailed cost and schedule report	W	W	W	W	W	W		
Overview project status report	W	W	W	W	W	W	W	W
Resource requirements	A	A	A	A	A	A	A	A
Deliverables status report	M	W	M	M	M	M	M	M
Implementation schedule report	W	W	W	W	W	W	W	W

D = Daily, W = Weekly, M = Monthly, A = As Requested

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Quantifiable Objectives

(Measurable criteria for success)

- Project will finish within 15% of projected finish time
- Less than 40 hours of unscheduled overtime will be used to complete the project
- Two iterations of development/test phase will be conducted
- One iteration of implementation/production required
- User signs off that project is completed

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Project Management
(Deliverables by Project Phase)

2. Plan the Project

a. Risk profiles
b. Risk log
c. Risk management plan
d. Work breakdown structure
e. Guidelines for task size
f. Network diagram
g. Gantt chart
h. Cost-estimating work sheet

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Work Breakdown Structure and Deliverables

(List major deliverables. Use words ending in "ed")

- **Planning**
  - Project Plan approved
- **Design**
  - Database and reports design completed and approved
  - Data collection mechanism and distribution defined and approved
- **Develop**
  - Programming & fields approved for test
- **Test**
  - User sign-off completed
- **Implement**
  - Programming moved to production, no major problems reported for one month
- **Closeout**
  - User feed-back for next phase documented
  - Final user-sign-off completed

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Risk Plan

Risk	*Impact (high or low*	*Impact description*	*Probability of occurrence*	*Suggested response and response description (avoid, mitigate or accept*	*Who approves response*	*Response approval status*
Coordinators and managers won't give information	H	Delay in schedule Quality of database will decrease	H	Accept Mitigate – conduct training prior to work. Contingency – Add time to schedule to compensate for additional work	Director	Pending
Computer resources unavailable	H	Delay in schedule	H	Accept Avoid-design work top priority allowing other deadlines to delay Transfer-subcontract computer work (adds cost) Contingency-Add time to schedule	Director	Pending

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Project Management
(Deliverables by Project Phase)

3. Project Control

a. Status reports for different audiences
b. Cost and schedule tracking charts
c. Meeting agendas, including open task reports
d. Cost-tracking guidelines
e. Issues log
f. Change request form
g. Change log

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Quality Plan

WBS/Deliverable	*Steps to Make Sure Deliverable is Correct*	*Criteria of Acceptance*
Project Plan Approved	·Use qualified personnel ·Meet with stakeholders to discuss requirements ·Base project on approved project assessment	·Project plan based on department template ·Project plan reviewed and approved by those identified in responsibility matrix.
Database reports design completed and approved	·Use qualified personnel ·Meet with stakeholder (focus on users) to review detailed requirements ·All key stakeholders identified in responsibility matrix required to review and sign-off	·Internal review peer review of design completed and approved. ·Sign-off of key stakeholders
Data collection and distribution defined and approved	·Use qualified personnel ·Meet with stakeholder (focus on users) to review detailed requirements ·All key stakeholders identified in responsibility matrix required to review and sign-off	·Internal peer review of design completed and approved ·Sign-off of key stakeholders

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Quality Plan (continued)

WBS/Deliverable	*Steps to Make Sure Deliverable is Correct*	*Criteria of Acceptance*
Code approved for test	·Use qualified personnel ·Follow internal coding procedures	·Internal peer review of code completed and approved. ·Sign-off of appropriate management (as identified in responsibility matrix)
User sign-off completed	·Use qualified personnel ·All key stakeholders identified in responsibility matrix required do required testing to sign-off	·Internal review peer review of test results completed and approved ·Sign-off of key stakeholders
Code moved to production	·Use qualified personnel ·Follow production code procedure	·Internal review peer review of move to production completed and approved ·Sign-off of appropriate management (as identified in responsibility matrix)
User Feedback documented	·Use qualified personnel ·Follow internal user documentation procedures	·Internal review peer review of feedback. ·Sign-off of appropriate management (as identified in responsibility matrix)
Final User sign-off completed	·Use qualified personnel ·Follow internal sign-off procedures	·Sign-off of appropriate management (as identified in responsibility matrix) ·Project plan with lessons learned archived with user sign-off

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Budget and Time Constraints

(Include answers to "how fixed is the budget?" How was the deadline arrived at? How far over budget or how late can we be and still be successful? Do we know enough to produce reliable estimates?)

- One month to define and approve plan
- Three months to complete
- Two IT staff working on project half time during the project

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Project Management
(Deliverables by Project Phase)

4. Close Out

a. Post project review agenda and guidelines
b. Post project review report
c. Client satisfaction assessment
d. Project history file guidelines
e. Project summary report

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Close-out Reporting

- Notify participants of transition tasks with a project turnover memo
- Document lessons learned and product improvement suggestions
- Detail unresolved issues to be handled in the next phase
- Survey participants of what they would do differently next time

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If you have clear goals, strong communication, realistic schedules supported by detailed plans, you will have a successful project. You will achieve them by systematically applying the techniques of project management.

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This concludes The American Institute of Architects Continuing Education Systems Course

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