



विद्या परं दैवतम्

**IIM**

भारतीय प्रबंध संस्थान विशाखपट्टणम

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## Project Planning

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# Project Plan Element

- Overview
- Objectives
- General Approach
- Contractual Aspects
- Schedules
- Resources
- Personal
- Stakeholders
- Risk management plans
- Evaluation methods

## The Project Plan Addresses:

- Developing guidelines for procuring project materials and resources
- Defining the project's scope and establishing practices to manage the project's scope
- Developing the Work Breakdown Structure
- Developing practices to manage the quality of the project deliverables
- Defining how project requirements will be managed
- Establishing practices for managing risk
- Establishing the schedule baseline and developing a plan to manage the project's schedule

## A Whole-Brain Approach to Project Planning

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- Project managers typically use left side of brain- logical and analytical
- Should also use right side – creative
- A whole-brained approach is mind mapping

## Mind Mapping Advantages

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- It is a visual approach that mirrors how human brain records stores information
- It helps tap the creative potential of the entire project team  
-helps increase quantity and quality of ideas
- Team members find it enjoyable
- Helps generate enthusiasm
- Helps obtain buy-in from team members

# Final Mind Map for Full-Time MBA



## Project Planning in action

- Considers the sequence of activities required to carry the project from start to completion.
- Software and hardware developers may divide the project into nine segments:
  1. Concept evaluation
  2. Requirements identification
  3. Design
  4. Implementation
  5. Test
  6. Integration
  7. Validation
  8. User test and evaluation
  9. Operations and maintenance

## Hierarchical Planning (Action Plan)

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- Major tasks are listed
- Each major task is broken down into detail
- This continues until all the activities to be completed are listed
- Need to know which activities “depend on” other activities

# A Form to Assist Hierarchical Planning

ACTIVITY PLAN				
Deliverables _____				
_____				
Measure(s) of accomplishment _____				
_____				
Key constraints and assumptions _____				
_____				
TASKS	ESTIMATED RESOURCES	IMMEDIATE PREDECESSOR TASKS	ESTIMATED TIME DURATION(S)	ASSIGNED TO

# Career Day

Career Day				
Steps	Responsibility	Time (weeks)	Prec.	Resources
<b>1. Contact Organizations</b>				
a. Print forms	Secretary	6	–	Print shop
b. Contact organizations	Program manager	15	1.a	Word processing
c. Collect display information	Office manager	4	1.b	
d. Gather college particulars	Secretary	4	1.b	
e. Print programs	Secretary	6	1.d	Print shop
f. Print participants' certificates	Graduate assistant	8	–	Print Shop
<b>2. Banquet and Refreshments</b>				
a. Select guest speaker	Program manager	14	–	
b. Organize food	Program manager	3	1.b	Caterer
c. Organize liquor	Director	10	1.b	Dept. of Liquor Control
d. Organize refreshments	Graduate assistant	7	1.b	Purchasing
<b>3. Publicity and Promotion</b>				
a. Send invitations	Graduate assistant	2	–	Word processing
b. Organize gift certificates	Graduate assistant	5.5	–	
c. Arrange banner	Graduate assistant	5	1.d	Print shop
d. Contact faculty	Program manager	1.5	1.d	Word processing
e. Advertise in college paper	Secretary	5	1.d	Newspaper
f. Class announcements	Graduate assistant	1	3.d	Registrar's office
g. Organize posters	Secretary	4.5	1.d	Print shop
<b>4. Facilities</b>				
a. Arrange facility for event	Program manager	2.5	1.c	

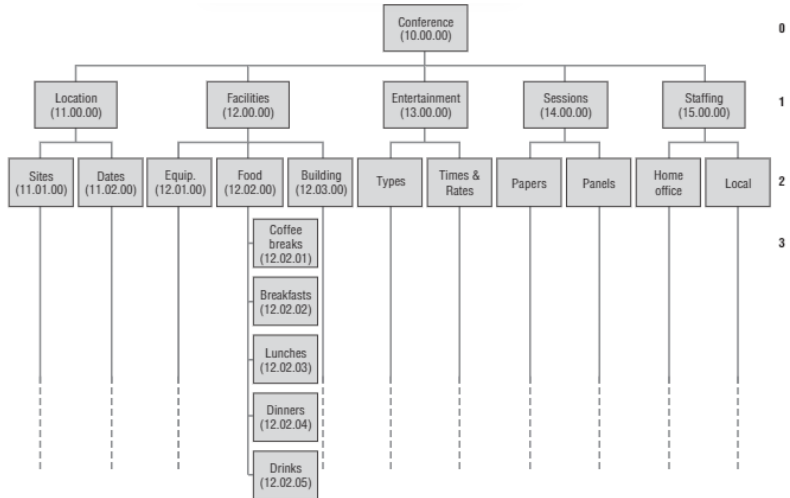


# The Work Breakdown Structure (WBS)

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- A hierarchical planning process Breaks tasks down into successively finer levels of detail
- Continues until all meaningful tasks or work packages have been identified
- These make tracking the work easier
- Need separate budget/schedule for each task or work package

# A Visual WBS



## Steps to Create a WBS

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1. List the task breakdown in successive levels
2. Identify data for each work package
3. Review work package information
4. Cost the work packages
5. Schedule the work packages
6. Continually examine actual resource use Continually examine schedule

# Human Resources

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- Useful to create a table that shows staff needed to execute WBS tasks
- One approach is a organizational breakdown structure
  - Organizational units responsible for each WBS element
  - Who must approve changes of scope
  - Who must be notified of progress
- WBS and OBS may not be identical

## The Responsibility (RACI) Matrix

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- Another approach is the Responsible, Accountable, Consult, Inform (RACI) matrix
  - Also known as a responsibility matrix, a linear responsibility chart, an assignment matrix, a responsibility assignment matrix
- Shows critical interfaces
- Keeps track of who must approve and who must be notified

# Sample RACI Matrix

		Responsibility					
		Project Office				Field Oper.	
Activity	Task	Project Manager	Contract Admin.	Project Eng.	Industrial Eng.	Field Manager	
Determine need	A1	A		C	R		
	A2	I	A	R	C		
Solicit quotations	B1	A	I	R		C	
Write approp. request.	C1	I	R	A	C		
	C2		C	A	R		
	C3	C	I	R		I	
"	"						
"	"						
"	"						

**Legend:**

- R Responsible
- C Consult
- I Inform
- A Accountable

# Simple Linear Responsibility chart

	Vice-president	General manager	Project manager	Manager engineering	Manager software	Manager manufacturing	Manager marketing	Subprogram manager manufacturing	Subprogram manager software	Subprogram manager hardware	Subprogram manager services
Establish project plan	6	2	1	3	3	3	3	4	4	4	4
Define WBS		5	1	3	3	3	3	3	3	3	3
Establish hardware specs		2	3	1	4	4	4				
Establish software specs		2	3	4	1		4				
Establish interface specs		2	3	1	4	4	4				
Establish manufacturing specs		2	3	4	4	1	4				
Define documentation		2	1	4	4	4	4				
Establish market plan	5	3	5	4	4	4	1				
Prepare labor estimate			3	1	1	1		4	4	4	4
Prepare equipment cost estimate		3	1	1	1			4	4	4	4
Prepare material costs			3	1	1	1		4	4	4	4
Make program assignments			3	1	1	1		4	4	4	4
Establish time schedules		5	3	1	1	1	3	4	4	4	4

1 Actual responsibility

2 General supervision

3 Must be consulted

4 May be consulted

5 Must be notified

6 Final approval

# Verbal Responsibility chart

<i>Activities</i>	<i>Initiate Action</i>	<i>Responsible Individuals</i>	
		<i>Work with</i>	<i>Clear Action with</i>
<i>Distribution System and Its Administration</i>			
1. Recommend distribution system to be used.	Mktg Officers	ILI & IHI LOB MCs M-A Cttee VP&Agcy Dir	Sr VP Mktg
	Mktg Officers	Group LOB MC M-A Cttee VP & Agcy Dir	Sr VP Mktg
	Mktg Officers	IA LOB MC M-A Cttee VP&Agcy Dir	Sr VP Mktg
<i>Compensation</i>			
2. Determine provisions of sales-compensation programs (e.g., commissions, subsidies, fringes).	Compensation Task Force	Mktg, S&S & Eqty Prod Offrs	President
	Compensation Task Force	Mktg, S&S & Eqty Prod Offrs	President
	Compensation Task Force	Mktg, S&S & Eqty Prod Offrs	President
3. Ensure cost-effectiveness testing of sales compensation programs.	Compensation Task Force	Mktg, S&S & Eqty Prod Offrs	President
	Compensation Task Force	Mktg, S&S & Eqty Prod Offrs	President
<i>Territory</i>			
4. Establish territorial strategy for our primary distribution system.	VP&Agcy Dir	Dir MP&R M-A Cttee	Sr VP Mktg
5. Determine territories for agency locations and establish priorities for starting new agencies.	VP&Agcy Dir	Dir MP&R M-A Cttee	Sr VP Mktg
6. Determine agencies in which advanced sales personnel are to operate.	Dir Ret Plnng	VP S & S	Sr VP Mktg
	Sls Dir Adv Sls		



# Agile Project Planning and Management

- Agile project management was developed to deal with two issues in IT:
  - When scope cannot be determined in advance, traditional planning does not work
  - Change is a constant
- Small teams are located at a single site
- Entire team collaborates
- Utilizes sprints
- Team deals with one requirement at-a-time with the scope frozen
- Waterfall is a “batch process; APM is a flow process

## 12 Agile Principles

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1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation

## 12 Agile Principles

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1. Working software is the primary measure of progress.
2. Agile processes promote sustainable development. The sponsors,  
sponsors,
3. developers, and users should be able to maintain a constant pace indefinitely.
4. Continuous attention to technical excellence and good design enhances agility.
5. Simplicity—the art of maximizing the amount of work not done—is essential.
6. The best architectures, requirements, and designs emerge from self-organizing teams.
7. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

## Benefits of APM

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- Better project outcomes
- Increased customer satisfaction
- Improved morale
- Increased collaboration and project visibility

## Coordination Through Integration Management

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- Managing a project requires a great deal of coordination
- Projects typically draw from many parts of the organization as well as outsiders
- All of these must be coordinated
- The RACI matrix helps the project manager accomplish this

# Integration Management

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- Coordinating the work and timing of different groups
- Interface coordination is the process of managing this work across multiple groups
  - Requires structure

## Managing Projects by Phases and Phase-Gates

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- Break objectives into shorter term sub-objectives life cycle is used for breaking a project up into component phases
- Focus on specific, short-term output
- Lots of feedback between disciplines

## References

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- **Contemporary Project Management by Kloppenborg, Pearson India.**
- **Project Management A Managerial Approach by Meredith and Mantel, John Wiley Sons.**

*Thank you.*

*Any queries?*