

Scheduling 1 Day Structure

Session 1: Design and Structure your Schedule

1. The need for planning and scheduling
 - a. Purpose = communication not control
 - b. Understand audience
2. Simple -v- complex projects
3. Planning -v- scheduling
4. The project scheduler
5. Planning the project
6. Planning the schedule management
 - a. Scheduling Heuristics & Templates
 - b. Optimum update cycle
7. PDM Network building blocks Basic framework of a schedule
 - a. Activities & Milestones
 - i. Milestones
 - ii. Attributes of an activity
 - iii. Durations
 - b. Logic Links
 - i. Rules of logic
 - ii. Link types
 1. FS/SS/FF/SF
 2. Mandatory/discretionary/external
 - iii. Leads and Lags
 - c. Building the project 'Road Map'
8. **Exercise #1 – Construct Schedule.**

Session 2: Schedule Analysis

1. Schedule types, techniques and levels
 - a. Schedule Levels
 - b. Rolling Wave planning and Schedule Density
2. Schedule calculations (Time Analysis)
 - a. Integers -v- elapsed time
 - b. Forward Pass
 - c. Back Pass
3. **Exercise #2 – Analyse Schedule.**
4. Free Float, Total Float & the Critical Path
 - a. Defining the Critical Path
 - b. Float calculations and definitions
 - c. Using float wisely
5. Link calculation problems
6. Calculating Durations
 - a. Options: Analogous -v- Parametric
 - b. Problems with production rates
 - c. Problems with effort driven durations

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Session 3: Resource Analysis and Costs

1. Constraints & Calendars
2. Resources: Types of resource
 - a. People and equipment
 - b. Materials and consumables
 - c. Money and work space
3. Resource allocation and constraints
 - a. Availability / calendars / limitations
 - b. Allocation Per day (time based) or Total (distributed or flexible)
4. Resource levelling options
 - a. Aggregation
 - b. Smoothing
 - c. Levelling
5. **Exercise 3 – Resource level Schedule.**
6. Resource problems
 - a. Resource schedule
 - i. No float – balanced by resource allocation
 - ii. Critical resources & resource float
 - b. Productivity
 - i. Multi-tasking
7. Cost Management
8. Cash flow analysis
 - a. Developing the baseline budget
 - b. Types of cash flow
 - c. The Funding gap
9. Earned Value & Earned Schedule
10. Uncertainty and contingencies What is a resource
 - a. Cost – using resources incurs costs
 - b. Capability – resources do the work
 - c. Stakeholder / team member – need communication and motivation

Session 4: Updating the Schedule & Reporting

1. Schedule review and revision
2. Schedule baselines
 - a. Contract Programs (old and new views)
 - b. Schedule Baselines
3. Statusing the schedule - Gathering and recording actuals
 - a. Who to ask
 - b. Data to collect
 - i. Start and Finish dates
 - ii. Time to finish and % work complete
 - iii. Resources used and Costs incurred
 - c. Statusing and editing for accuracy

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4. Updating the schedule
 - a. Review status
 - b. Management action to
 - i. Lock in gains
 - ii. Mitigate losses
5. **Exercise #4 – Update the Schedule.**
6. Dealing with ‘Bad News’
7. Schedule compression
 - a. Crashing (Mythical Man Month)
 - b. Fast tracking
8. Record keeping and progress information
9. Change Control
10. Reporting options and communication
 - a. Focusing the information
 - b. Coding structures
 - c. Standardising report formats
11. Types of Report
 - a. Management Reports – Milestone and Dashboards
 - b. Team reports – Bar charts
 - c. Variance and trend reports
12. Feedback & Benchmarking Managing for success
13. Summary & Course wrap Up.

Scheduling Core Papers

#1	A Guide to Scheduling Good Practice	http://www.mosaicprojects.com.au/PDF/Good_Scheduling_Practice.pdf
#2	Attributes of a Scheduler	http://www.mosaicprojects.com.au/PDF/Attributes_of_a_Scheduler.pdf
#3	Dynamic Scheduling	http://www.mosaicprojects.com.au/PDF/dynamic_scheduling.pdf
#4	Links, Lags & Ladders	http://www.mosaicprojects.com.au/PDF/Links_Lags_Ladders.pdf
#5	Schedule Float	http://www.mosaicprojects.com.au/PDF/Schedule_Float.pdf
#6	Schedule Levels	http://www.mosaicprojects.com.au/PDF/Schedule_Levels.pdf

Mosaic’s Scheduling Home Page is at : <http://www.mosaicprojects.com.au/Planning.html>