MONASH University

Faculty of Information Technology

FIT2002 PROJECT MANAGEMENT

TUTORIAL 6

TOPIC 6:
Project Cost Management

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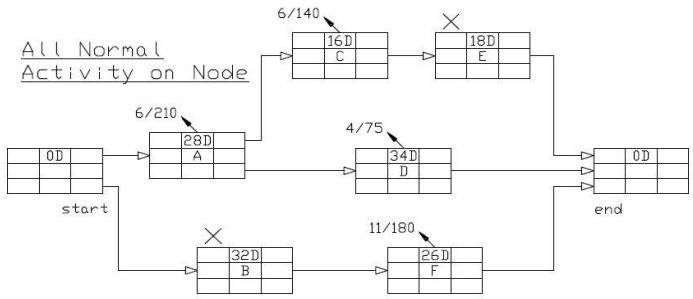
Learning outcomes:

- Understand how to estimate effort for an IT project
- Understand key cost management terms
- Understand project performance measurement using Earned Value Management (EVM)

Time Frame 110 Mins	***Topic***	***Activity***	***Outcomes/ tasks/ resources***
30 mins	Review of lecture	**Activity 1**: Review the workshop material Tutor led activity: ➢ What is direct vs. indirect costs? ➢ What is sunk cost? ➢ What are tangible and intangible costs (or benefits)? ➢ Why is estimating effort difficult in IT projects? ➢ What are the different techniques used in creating cost estimates? Give an example of each.	*Describe and know these terms*: Analogous estimates Baseline Contingency reserves Direct/Indirect costs Tangible/intangible Costs/benefits Rough order of magnitude (ROM) Sunk cost
30 mins	Cost Estimation	**Activity 2**: Calculate costs, revenues and profits (Source: Schwalbe, p. 294) See full details below	Outcomes: Cost, revenue and profit sheet
30 mins	Earned Value Management	**Activity 3**: Earned Value Management (EVM). (Source: Schwalbe, p294). See full details below	Outcomes: To be able to assess a project's status/progression
	Project Crashing (To be done in week 7)	~~**Activity 4:**~~ For the network and information below: a) Do project compression calculations to achieve minimum project duration at minimum project direct cost. b) Calculate the additional cost required to fully crash this project. Assume datum project cost is $12,590. (Use the template on Page 4) 	Outcomes: To be able to catch up on a project schedule at the least incremental cost.
20 mins	Assignment clarification	**Activity 4:** Clarify any queries on your assignment requirements (Running Case 4) with your tutor and you can also show your draft and get some informal feedback from your tutor. Note that this time is set aside for you to work on the assignment – as a team. You can use this as a meeting to discuss each other's progress and any action items.	
	Exploring Ms Project (Tutorial C)	**Homework:** Open the file MSP 2016 Tutorial Exercise C from Moodle. In this exercise, you will learn how to assign resources to Activities in Microsoft Project. • Follow the instructions stated in the exercise. • Show your work to your tutor next week.	

Activity 2: Calculate costs, revenues and profits (Source: Schwalbe, p. 294)

Create a spreadsheet (or use Tutorial 6_Activity 2 Template.xlsx) to calculate your projected total costs, total revenues, and total profits for giving a seminar on cost estimating. Make the following assumptions:

- You will charge $600 per person for a two-day class.
- You estimate that 30 people will attend the class, but you want to change this input.
- Your fixed costs include $500 total to rent a room for both days, setup fees of $400 for registration, and $300 for designing a postcard for advertising.
- You will not include your labour costs for this estimate, but you estimate that you will spend at least 150 hours developing materials, managing the project, and giving the actual class. You would like to know what your time is worth given different scenarios.
- You will order 5,000 postcards, mail 4,000, and distribute the rest to friends and colleagues.
- Your variable costs include the following:
    - $5 per person for registration plus four percent of the class fee per person to handle credit card processing; assume that everyone pays by credit card
    - $0.40 per postcard for printing if you order 5,000 or more
    - $0.25 per postcard for mailing and postage
    - $25 per person for beverages and lunch
    - $30 per person for class handouts

Be sure to have input cells for any variables that might change, such as the cost of postage and handouts. Calculate your profits based on each of the following numbers of people who might attend: 10, 20, 30, 40, 50, and 60. In addition, calculate what your time would be worth per hour based on the number of students. Try to use the Excel data table feature to show the profits based on the number of students. If you are unfamiliar with data tables, just repeat the calculations for each possibility of 10, 20, 30, 40, 50, and 60 students. Show your results on one page, highlighting the profits for each scenario and what your time is worth.

Activity 3: Earned Value Management (Source: Schwalbe, p294)

Given the following information for a one-year project, answer the following questions. Recall that PV is the planned value, EV is the earned value, AC is the actual cost, and BAC is the budget at completion.

PV = $23,000
EV = $20,000
AC = $25,000
BAC = $120,000

a) What is the cost variance, schedule variance, cost performance index (CPI), and schedule performance index (SPI) for the project?
b) How is the project doing? Is it ahead of schedule or behind schedule? Is it under budget or over budget?
c) Use the CPI to calculate the estimate at completion (EAC) for this project. Is the project performing better or worse than planned?
d) Use the SPI to estimate how long it will take to finish this project.