

Faculty of Information Technology

FIT2002 PROJECT MANAGEMENT

TUTORIAL 5

TOPIC:

Project schedule management

TOPIC: Project time management

Learning outcomes:

- Describe the steps in schedule management
- Identify the link between WBS and activity decomposition
- Define the process of activity decomposition
- Describe sequence activities and the types of activity dependencies
- Identify and describe the various network diagrams for managing activities

Resource:

Schwalbe, K..(2015). *Information Technology Project Management. (8e) Cengage Learning. Chapter 6*

Brewer, J.L., & Dittman, K.C.,(2013). *Methods of IT project management. (2nd Edition) Purdue University Press. Chapter 6*

Time Frame 110 mins	Topic	Activity	Outcomes/ tasks/ resources																					
30 mins	Review workshop	Activity 1: <u>Group discussion:</u> ➤What is meant by ‘time management’? ➤Explain the term schedule baseline ➤What is the importance of correct scheduling? ➤Explain the difference between the work breakdown structure and the work package? ➤Discuss when you would use the Activity on Arrow and when you would use Arrow on Node diagramming technique ➤Discuss whether network diagrams should be used in Agile methodology	<i>Describe and know these terms:</i> Scope baseline Schedule baseline Cost baseline WBS Work packages Project scheduling tools Network diagrams																					
30 mins	Network diagrams (Float and critical path)	Activity 2: A project is described by activities A, B, C, D, E, and F in the table below: <table border="1"><thead><tr><th>Activity</th><th>Duration</th><th>Predecessor</th></tr></thead><tbody><tr><td>A</td><td>6</td><td>Start anytime</td></tr><tr><td>B</td><td>3</td><td>Start anytime</td></tr><tr><td>C</td><td>2</td><td>Start after A has ended</td></tr><tr><td>D</td><td>3</td><td>Start after B has ended Start after C has started</td></tr><tr><td>E</td><td>6</td><td>Start after C has ended</td></tr><tr><td>F</td><td>4</td><td>Start after D has ended</td></tr></tbody></table> The project has finished when activities E and F have finished. <ol style="list-style-type: none">1. Draw a network diagram (Using Activity on Node)2. Calculate the floats3. Determine and mark the critical path4. Discuss steps 2 and 3 with your tutor	Activity	Duration	Predecessor	A	6	Start anytime	B	3	Start anytime	C	2	Start after A has ended	D	3	Start after B has ended Start after C has started	E	6	Start after C has ended	F	4	Start after D has ended	Able to draw a network diagram and perform network calculations.
Activity	Duration	Predecessor																						
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F	4	Start after D has ended																						

30 mins	PERT	<p>Activity 3: Given the following information, determine the PERT value using the Program Evaluation and Review Technique.</p> <table><tr><th>Task</th><th>Predecessors</th><th>Optimistic</th><th>Most likely</th><th>Pessimistic</th></tr><tr><td>A</td><td>None</td><td>2</td><td>5</td><td>8</td></tr><tr><td>B</td><td>A</td><td>2</td><td>2</td><td>9</td></tr><tr><td>C</td><td>A</td><td>.25</td><td>.5</td><td>3.75</td></tr><tr><td>D</td><td>B</td><td>1</td><td>1</td><td>7</td></tr><tr><td>E</td><td>B & C</td><td>1</td><td>2</td><td>9</td></tr><tr><td>F</td><td>D & E</td><td>1</td><td>3</td><td>11</td></tr></table> <p>Using the PERT values:</p> <ol style="list-style-type: none">1. Draw an Activity-on-node diagram.2. What is the critical path?3. What is the estimated project duration? <p>What are the advantages and disadvantages of using PERT?</p>	Task	Predecessors	Optimistic	Most likely	Pessimistic	A	None	2	5	8	B	A	2	2	9	C	A	.25	.5	3.75	D	B	1	1	7	E	B & C	1	2	9	F	D & E	1	3	11	Understanding how PERT is used in CPM.
Task	Predecessors	Optimistic	Most likely	Pessimistic																																		
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E	B & C	1	2	9																																		
F	D & E	1	3	11																																		
	Exploring Ms Project (Tutorial B)	<p>Activity 4: (Homework) Open the file: <u>MSP 2016 Tutorial Exercises B</u> (or <u>ProjectLibre Guide – Ex B</u> if you’re using ProjectLibre)</p> <ul style="list-style-type: none">• Follow the instructions stated in the exercise.• In this exercise, you will learn how to enter a project network with an end-to-end constraint in Microsoft Project.																																				
20 mins	Assignment clarification	<p>Activity 5: This time is set aside for you to work on the assignment – as a team. Would be good to use this time:</p> <ul style="list-style-type: none">• As a meeting to discuss each other’s progress and any action items.• To clarify any queries on your Running Case 3 requirements with your tutor.• To show a draft of running case 2 to your tutor and obtain an informal feedback. <p>Note: This is not a time where you can leave the class early!</p>																																				