MONASH University
Information Technology

FIT2002 IT Project Management
October, 2021
Assignment One

Running Case 4: Project Cost Management

After reviewing your project plan and WBS as well as advice from experts, the directors of Open Education University have now identified the hybrid campus project as top priority and senior management has given a one-year timeline to complete this project. Due to the urgency to complete this project within a one-year timeframe the directors have approved an additional $600,000, bringing the total budget to $1.5 million. So, instead of rolling out the 10 study centres in 3 years, as was originally planned, it is now expected that the 10 study centres will be fully operational by the end of one year.

Although you are **not** expected to change anything in Running cases 1 to 3, you are required to refine your cost estimate for the project. This is especially important for you to evaluate future supplier bids and have a solid cost baseline for evaluating project performance.

Tasks:

1. Prepare a budgetary estimate in the form of a cost model similar to the model provided in the Schwalbe text (Figure 7-2, Page 279) or Lecture 6 Slide 19. The notes on pages 276 to 278 of the Schwalbe text would also be useful.
   a) Use the WBS that you have developed in running case 2.
   b) You may use the monthly salaries listed in the appendix as a guideline. Please note that you do not have to employ all of the people listed in the appendix - you will need to decide which of those skills you do need. You will also need to decide how many people with a particular expertise you will need and, in some cases, for what duration of time you will need them.
   c) Assume that none of the work is outsourced.
   d) Hardware for the studios: $100 000 in month 3 and $200 000 in month 4.
   e) Contingency reserves will be estimated at 15% of the total estimate.
   f) The total estimate should be below the allocated $1.5 million.
   g) Include testing and training in your cost estimate.
   h) You do not have to include maintenance (e.g. upgrades, salaries of centre managers) or any costs incurred after the first year in your cost estimate.

2. Using the cost model you created in Task 1, prepare a cost baseline by allocating the costs by WBS for each month of the project (similar to Lecture 6 slide 24).

3. Assume that you have completed four months of the project and have completed 25% of the project work. Also assume that your total amount spent at this point is $600 000.

   You are now required to calculate the cost variance, schedule variance, cost performance index (CPI), and schedule performance index (SPI) for the project.

   Note: To work out your planned value, you may either assume:
   - Equal amount of work scheduled throughout this one-year project (only for this particular task); or
   - Use your cost baseline and schedule baseline.

a) Use the CPI to calculate the estimate at completion (EAC) for this project.
b) Use the SPI to estimate how long it will take to finish this project.
c) Sketch an earned value chart using the preceding information. See Lecture 6 (slide 32) as a guide.
d) Based on your calculation and estimation in part a) – c), write a memo to the Directors of OEU advising them of the progress of the project at this point and provide appropriate recommendation(s).

Note: As the workload for this running case is quite light, 3-members team will need to do **all** the tasks, except for Task 3c (i.e. you do not need to draw the earned value chart)

Instructions:

1. Collate all your responses for Running Cases 1, 2, 3 and 4 into a word document (or pdf document), together with your meeting minutes and timesheet. All tables, graphs, Gantt charts, WBS and network diagram should be copied (screenshot) and paste into the word document. Please put your ProjectLibre files in your Google drive (shared with your tutors).
2. Your submission must be in the form of a word document (or pdf) and saved as: Group-##.docx (or .pdf), where '##' is your group number.
3. Upload your submission (one submission per group) on the FIT2002 Moodle site under "FIT2002 Assignment 1 Submission" link by Friday 10th December 2021 11pm.
4. ALL members need to complete the peer review – TBA.

Marking Criteria:

Running Case:	Task	Criteria	Weight
Case 4: Project Cost Management (25%)	Task 1	A good and reasonable cost model for the project.	7
	Task 2	A good cost baseline that matches the cost model developed in Task 1.	6
	Task 3	a) Accurate calculation of CV, SV, CPI & SPI b) Correct calculation of EAC c) Correct calculation to estimate time to completion d) Good and well-presented earned value chart e) A clear and succinct memo to project sponsor addressing all relevant information regarding the status of the project and appropriate recommendation(s)	12

Appendix

Annual salary of full time staff		
Staff member	**Annual Salary**	**% FTE[1] on project**
Project Manager	$108 000	100%
Network specialist	$96 000	70%
Videoconferencing specialist	$50 000	65%
Educational expert	$70 000	45%
LMS[2] expert	$55 000	40%
Business and marketing expert	$72 000	25%
Systems analyst	$96 000	25%
Developers/Programmers	$60 000	- Put your own estimation
Content editors	$67 000	- Put your own estimation

[1] FTE = Full Time equivalent: the hours worked by one employee on a full-time basis. On an annual basis an FTE is considered to be 2,080 hours, which is calculated as 8 hours per day x 5 work days per week x 52 weeks.
[2] LMS = Learning management system (See Running Case 2 for more detail about this position)

Check if you have included everything:

Running Case:	Task	Criteria	Checklist
Case 1: **Project Integration Management (25%)**	Task 1	1. A clear and presentable table which include: - the name of each project - identify how each one supports business strategies - assess the potential financial benefits and other benefits - initial assessment of the value of each project. 2. A clear and well justified one-page memo to top management, presenting your findings	☐
	Task 2	1. A good and justified weighted scoring model to evaluate the four projects which include: - four criteria, - weights to each criterion - scores and the weighted scores. 2. A presentable spreadsheet and bar chart to present the results. 3. A clear and succinct one-page write-up describing this weighted scoring model and the results.	☐
	Task 3	A good and succinct business case for the Hybrid Campus project.	☐
	Task 4	A comprehensive project charter for the Hybrid Campus project.	☐
Case 2: **Project Scope and Human Resource Management (25%)**	Task 1	Develop a project scope statement for the Hybrid Campus project: • Scope boundary is clearly defined, identifying what is in and out of scope. • Specific in describing product characteristics and requirements; • Comprehensive and clear project's deliverables.	☐
	Task 2	• Develop a requirements traceability matrix (RTM) for the Hybrid Campus project using the template provided. • Include at least ten distinct requirements (six for team of 3), relevant to the project.	☐
Case 3: **Project Time Management (25%)**	Task 1	Develop a work breakdown structure (WBS) for the Hybrid Campus project using ProjectLibre. Break down the work to Level 3 or Level 4, as appropriate.	☐
	Task 2	Write-up (about 1 - 2 pages): - describing 8 milestones using the SMART criteria. (Team of 3 - do not need write up, but just identifying 8 milestones)	☐

	Task 3	• Realistic estimation of the task durations and dependencies. (May use PERT or otherwise) • Using ProjectLibre to produce a clear Gantt chart that accurately depicts the task dependencies, correct task durations and milestones. • A clear and concise one-page write up on the task duration estimates, dependencies and any assumptions made.	☐
	Task 4	A presentable network diagram for the project based on Level 3 of WBS: - clearly labelled (using the legend recommended) - correct calculation on early/late start/finish and free floats as well as total floats - clearly indicating the critical path.	☐
Case 4: Project Cost Management (25%)	Task 1	A good and reasonable cost model for the project.	☐
	Task 2	A good cost baseline that matches the cost model developed in Task 1.	☐
	Task 3	Accurate calculation of CV, SV, CPI & SPI Correct calculation of EAC Correct calculation to estimate time to completion Good and well-presented earned value chart A clear and succinct memo to project sponsor addressing all relevant information regarding the status of the project and appropriate recommendation(s)	☐