Technische
Hochschule
Rosenheim
Technical University of Applied Sciences

Exercise 7: Project timeline, Resource plan & Cost plan

Task 1 – Create schedule (15 min.)

You want to organise a film festival at the TH Rosenheim. In this exercise, planning activities are to be carried out. The aim is to get to know a pragmatic approach in order to arrive at a first realistic project planning.

In order to reduce the complexity, we will only focus on a simplified section of the project, namely the subtasks of film production and organisation of the festival. Assume the following ten work packages:

ID		Duration (weeks)	Effort (person weeks)
	Film production		
1	Define content	4	40
2	Define actors	1	2
3	Assemble film equipment	1	4
4	Create video	4	40
5	Video editing	1	12
	Event organisation		
6	Define and reserve location	1	8
7	Agenda festlegen	1	14
8	Plan & implement advertising activities	3	21
9	Writing invitations and sending them by mail merge	1	7
10	Organise catering and support staff	3	30

In a first step, create a schedule that visualises the work packages and their durations and temporal arrangement in a bar chart. Use the worksheet "Scheduling" of the Excel file "PM-Excercise07-Template_Projectplan.xlsx" for this purpose.

Task 2 – Determine resource utilisation

Now open the worksheet "Resource and cost planning".

Your student project team consists of the following five people: Paul, Susan, Liz, Henry and Tim. The work packages / tasks and the individual team members are already entered in the worksheet.

For the first work package / operation, the two estimated values of effort and duration have already been entered. In addition, an exemplary resource allocation has been made for the first work package / operation. The two columns "effort (pd) / week" and "cur-rently scheduled" are to be calculated automatically by Excel.

a) Now enter the estimated values for effort and duration for all remaining work packages / tasks.
(Hint: The column Effort (PT) / Week is calculated automatically and serves as a guide for your planning activities).

b) Then determine which students will work on which work packages / tasks. Take into account that each student can only spend 2 days per week on the project. The remaining days are reserved for regular studies. Try to distribute the workload as evenly as possible among all resources.
(Hint: The column "Currently planned" serves as a control total and reflects the current planning status.)

c) Finally, analyse the hourly workload of all project team members.

Task 3 – Analyse and smooth resources (15 min.)

Answer the following questions and present your assessment to the plenary:

- How busy are the project staff during the project period?
- What measures can you take to relieve overloaded people? (Copy your initial planning if you need to make major changes to show the plenum a "before and after" comparison).

Expect further questions from the lecturer to which you will have to respond at short notice.

Task 4 – Create a cost plan

Definition: The term cost plan is generally defined as "a presentation of the costs expected to be incurred for the project". Optionally, the development of costs over time can also be seen as part of the cost plan.

a) Show the cost progression over time for the example project. The easiest way to do this is to add an additional table "Cost planning" to the Excel spreadsheet. Take into account the sum of all personnel costs (based on your resource planning). The university pays you 15 € per hour and person for this student project.
Add additional material costs or other costs by calculating 5,000 € material costs for the work package "Get film equipment" as an example. Furthermore, a down payment of 500 € is due for the work package "Organise catering and assistants".
Example:

b) Add a totals line in the cost progression over time that calculates the total costs in each case. Then add a line with the accumulated costs. Finally, build on this and add two diagrams, one showing the cost course and the other the cost sum line.
Example: