12 Project Management

This three-part workshop will address different areas of project management. The first part of the workshop is from 10:00 to 11:00. It covers everything you need to know about **degree of certainty**. **Product certainty**, **process certainty**, and **resource certainty** will be presented as ways to measure this important metric.

The course also covers the four control situations that are affected by certainty. Students will learn how to identify simple situations like **realization problems** and **allocation problems**. Then, they will examine more challenging situations, such as **design problems** and **exploration problems**.

Part two of the workshop is from 11:00 to 11:30. This section focuses on a crucial part of any project: **risk management**. Participants will learn how to identify and address **risk factors**.

Finally, part three of the workshop is from 11:30 to 12:00. This is a general overview of the various methods of organizing project tasks. For example, a **WBS** is a helpful tool for any project manager. It provides a view of the entire scope of a project. A **PERT chart** and its **critical paths** are used to coordinate tasks. Finally, the class will look at the value of maintaining schedules with **Gantt charts**.

resource certainty

risk factor

PERT chart

Gantt chart

Get ready!

1 Before you read the passage, talk about these questions.

1 What role do risks play in project management?
2 What tools help software engineers organize projects?

Reading

2 Read the advertisement. Then, choose the correct answers.

1 What is the flyer mostly about?
   A different types of development projects
   B ways to approach projects
   C methods for minimizing risk factors on projects
   D problems that are likely to arise on a project

2 What will students learn in part one of the workshop?
   A how to gain resources
   B how to handle risk factors
   C how to organize projects
   D how to measure degrees of certainty

3 Which of the following is NOT used to organize project tasks?
   A WBS   C critical paths
   B PERT chart   D risk management chart

Vocabulary

3 Match the words (1-8) with the definitions (A-H).

1 __ critical path   5 __ degree of certainty
2 __ risk factor   6 __ resource certainty
3 __ WBS   7 __ exploration problem
4 __ design problem   8 __ risk management

A a scale that measures the dependability of user requirements and resources

B a metric that is determined by the availability of supplies

C a situation in which the steps to completing a project are unknown

D a situation in which a project's overall degree of certainty is low

E a process that identifies potential problems and prevents them from becoming setbacks

F a characteristic that increases the possibility of problems

G a decomposition of a project into smaller groups to view the overall project

H a part of a PERT chart that identifies when tasks must be completed

4 Read the sentence pairs. Choose where the words best fit the blanks.

1 **Gantt chart / PERT chart**

A A _____ uses bars to indicate the timing of a project.

B Have you organized the tasks into a _____ yet?

2 **product certainty / process certainty**

A The functionality and quality of user requirements influences _____ .

B _____ measures the stage a project is in.

3 **realization problem / allocation problem**

A Since the company does not have enough employees, it has a(n) _____ .

B All the user requirements are stable, so we need to focus on the _____ .

5 🎧 Listen and read the advertisement again. What are some ways that the degree of certainty is measured?

Listening

6 🎧 Listen to a conversation between two software engineers. Mark the following statements as true (T) or false (F).

1 __ The man and the woman attended the workshop together.

2 __ The man used risk management methods on a recent project.

3 __ Gantt charts were not covered in the workshop.

? 🎧 Listen again and complete the conversation.

Engineer 2: I was at the 1 _____ . It was interesting.

Engineer 1: I didn't sign up for it. Was there any good information?

Engineer 2: Overall, it was really informative. They discussed three main topics in project management. I learned a lot about 2 _____ .

Engineer 1: Interesting. What else did they discuss?

Engineer 2: They also talked about risk management. I didn't realize how important it actually is to 3 _____ _____ .

Engineer 1: I hadn't really thought about it either. 4 _____ _____ any tips for organization?

Engineer 2: Yeah, that was the 5 _____ they addressed. I already knew about a lot of them, though.

Engineer 1: Which methods did they discuss? I'm about to run my first project, and I'm wondering what might be useful.

Engineer 2: Well, they talked about WBS, which I use all the time. They also 6 _____ .

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

What else did they ... / They discussed ...

Overall, I thought ...

Student A: You are an engineer. Talk to Student B about:
- a workshop on project management
- the topics discussed
- what you thought about it

Student B: You are an engineer. Talk to Student A about a workshop on project management.

Writing

? Use the advertisement and conversation from Task 8 to write an email to a coworker about a workshop on project management. Include: what the workshop covered, what you learned, and what you already knew.