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OENG5900M Managing Major Engineering Projects

Week 1

Introduction to Managing Major Projects
Welcome to the course
Introduction from Giorgio
Course overview
Where are your peers located?
Introduce yourself
Research and further reading

What is a project?
What is a project?
Projects, sub-projects and operations
Who is a project manager and what is project management?
Project management duties

Life cycle of major engineering projects
Types of project life cycles
The phases of the infrastructure life cycle
Project life cycle theories
Week 1 formative assessment: Multiple choice questions

Developing a project life cycle
Creating a project life cycle

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Week 2

Programmes & portfolios
What are programmes and portfolios?
The Milan Expo case study
What are the challenges of programme management?
What is a portfolio?

Transaction costs in project management
Transaction costs
USA and South Korea nuclear industry case study

Critical analysis assessment task
Week 2 formative assessment: Critical analysis task

Reflective Log
Reflecting on your learning

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Week 3

Major Engineering Projects & their Cost-Schedule Performance
What is a major project?
What types of risks are involved in major projects?
What is the iron triangle?
Error and inaccuracy in major projects
Cost and time performance of major projects

Key Reasons for Delay & Going Over-budget in Major Engineering Project
What is optimism bias?
How can you reduce the impact of optimism bias?
What is strategic misinterpretation?
Mitigating strategic misrepresentation
Optimism bias and strategic misrepresentation in context
Other reasons to explain over-budget and delay

Peer Reviewed Research Task
Introduction to peer review
Week 3 summative assessment: Peer review research task

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Week 4

Project Management Success vs Project Success
What is a measure of success in major project management?
Motorola Iridium case study
Main contractor perspective
How should you measure project success?
Extended perspective

Understanding Project Success
Turner and Zolin framework
The Tower of Pisa case study
The Thames Barrier case study
Week 4 summative assessment: Multiple choice questions

Reflective Log
Reflecting on your learning

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Week 5

The Assignment
The assignment
Approaching your research
Academic referencing

The Assignment
Creating your presentation
Your experiences of presenting

Creating and Delivering a Presentation
Preparing your presentation
Submitting your presentation
Week 5 summative assessment: Peer review presentation task

Next steps

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