

Lecture 1 — Introduction

James Quilty

*School of Engineering and Computer Science
Victoria University of Wellington*

Engineering Project Management 1

“It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things.”

— Niccolò Machiavelli, *The Prince*

Project Management Failures

A couple of recent local examples:

Antarctica NZ loses nearly \$500,000 on software failure

Martin van Beynen · 15:21, Feb 09 2020



A fly-through of the proposed redevelopment of Scott Base in Antarctica.

Antarctica New Zealand has wasted nearly \$500,000 on a failed software project when it is trying to raise \$50 million to fund its ice expansion.

Failed Ports of Auckland automation project likely to have cost \$500m, councillor says

Geraden Cann · 05:00, Jun 15 2022



The Maritime Union says the design of the port made it unsuited to the form of automation attempted.

Questions for this lecture

- **Why “projects”?**
- **What is a project?**
- **Why learn Project Management?**

What is a project?

“A project is a temporary organisation that is created for the purpose of delivering one or more business products according to an agreed Business Case.”

— PRINCE 2

“A project is a unique, transient endeavour undertaken to achieve a desired outcome.”

— Project Management Body of Knowledge (PMBOK)

Project Characteristics

A project:

- Has a unique, temporary, purpose
- Is developed in an iterative fashion
- Requires resources, often from various areas
- Typically has a primary customer or sponsor who provides direction and funding
- Involves uncertainty

Project Constraints

A project operates within a constrained environment:

- Financial
- Organisational
- Human resources
- Natural resources
- Time

Project Constraints

- Every project is constrained in different ways **but**
- The *triple constraint* of scope, time, and cost is common to many projects
- Other constraints include quality, risk, and resource constraints

Why Learn Project Management?

- It's *mandatory*

- The IEA Graduate Attributes (PDF)

<https://bit.ly/3uCi9MV>

- The ECS Expectations of Students

<https://ecs.wgtn.ac.nz/Main/ExpectationsOfStudents>

Another Reason... ?

- **Software Engineer Salary in New Zealand**

`https:`

`//www.jobted.co.nz/salary/software-engineer`

- **Project Manager Salary in New Zealand**

`https://www.jobted.co.nz/salary/project-manager`

What will be covered in ENGR 301?

- **“Classical” Project Management**
The Project Management Body of Knowledge,
- **A Project Management Platform**
GitLab
- **Source Control Management**
git, git and more git
- **Build Management**
Automated as much as possible
- **Dependency, Configuration, Environment, etc.**
*What do **you** want to learn?*

People

James Quilty — *Course Coordinator*
Office: Alan MacDiarmid AM228



<https://www.patreon.com/violetblue>

Lectures

- **Mondays** 16:10—17:00, Cotton COLT122
- **Tuesdays** 16:10—17:00, Cotton COLT122
- **Thursdays** 16:10—17:00, Cotton COLT122
- Lectures **recorded** and **webcast** over Panopto.
- Slides typically available **beforehand**.

Assessment Overview

- **Assignments 1–3 (15%)** — short; to support learning.
- **Performance Portfolio ×2 (20% + 30%)** — your practical work.
- **Final Test (35%)** — written.
- **Mandatory Requirements** — *Contribute to your project consistently; Be part of a group*
- **Submission** — online; marked by **staff** and **tutors**.
- **Penalties** — automatic penalty of 10% per day on assignments.

Final Test

- Standard in-person **written** examination (120 minutes).
- Scheduled during **exam period** (7th June – 22nd June).
- Arrangements made for anyone **self isolating**.

Class Representative Selection

**WHO WANTS
TO BE CLASS
REP?**

<https://www.vuwsa.org.nz/class-representatives/>

Talis Reading List

There is **no set text**, but there are several resources in the course Talis Reading List which you should find helpful to your performance in the course.

The following book is recommended:

The Phoenix Project, Gene Kim, George Spafford and Kevin Behr.