

# Understanding Project Management

## A Practical Guide

Second Edition

Dave C. Barrett

INSTRUCTOR'S GUIDE

 CANADIAN  
SCHOLARS

Toronto | Vancouver

[www.canadianscholars.com](http://www.canadianscholars.com)

**Understanding Project Management: A Practical Guide, Second Edition**  
**Instructor's Guide**

Dave C. Barrett

**Canadian Scholars, an imprint of CSP Books Inc.**

425 Adelaide Street West, Suite 200

Toronto, Ontario

M5V 3C1

**[www.canadianscholars.ca](http://www.canadianscholars.ca)**

Copyright © 2018, 2021 Dave C. Barrett & Canadian Scholars. All rights reserved.

Canadian Scholars gratefully acknowledges financial support for our publishing activities from the Government of Canada through the Book Publishing Industry Development Program (BPIDP) and the Government of Ontario through the Ontario Book Publishing Tax Credit Program.

## Overview

Welcome to the instructor's guide for *Understanding Project Management: A Practical Guide*. The purpose of this textbook is to provide a robust project management resource for students that is written in clear and understandable language. From my own experience of teaching project management for over 17 years, too often project management textbooks are written at a very complex level. Without a frame of reference, the students are often unable to provide their own context to the theory, resulting in reduced learning.

To address this challenge, this textbook uses **worked examples**.<sup>1</sup> The use of worked examples is common for subjects such as mathematics and science. Using this approach, the student learns the material by first receiving the problem and then being guided through a solution. The knowledge gained may then be applied to other problems.

This textbook uses worked examples in the form of an ongoing case study, which continues through all chapters of the book. A fictional software company called Deco Productions is launching a new version of the DecoCam software application. The project to launch the new version is followed throughout the textbook from its initiation to its completion. All project documents are demonstrated along with other relevant project management processes. The use of this worked example will help students to “put the pieces together” in order to understand how project management contributes to the success of this product launch.

To support the instructor when using this textbook, the following resources are provided:

- PowerPoint slides
- Project document templates
- Excel-based scheduling system
- Suggested syllabus
- Suggested project assignments
- Test bank
- Case studies

In addition, the Understanding Project Management YouTube channel includes a rich set of resources to support students, including a Discussions podcast (also available on Google Podcasts, Spotify, etc.), case study videos, MS Project tutorial videos, FastGantt tutorial videos, and more. The channel can be found at: <https://youtube.com/c/UnderstandingProjectManagement>

It is my intention that these resources are useful as you prepare your course delivery. If you have any feedback or suggestions, please feel free to contact me at my personal email address (dbarrett1010@gmail.com).

---

<sup>1</sup> For more information about worked examples, see: [https://www.youtube.com/watch?time\\_continue=13&v=qeQyMsCur6M](https://www.youtube.com/watch?time_continue=13&v=qeQyMsCur6M) or [https://www.youtube.com/watch?v=r\\_HfxcYXy2o](https://www.youtube.com/watch?v=r_HfxcYXy2o)

Good luck with your course,

Dave Barrett

## **Class Time / PowerPoint Slide Decks**

Although everyone will likely teach their own course differently, PowerPoint slide decks have been provided as a base resource for your lectures. My philosophy regarding the use of PowerPoint is that it is not a summary of the textbook and should not be considered a replacement for attending class, reading the textbook, or taking notes in class. Instead, they provide the highlights of the key concepts in each chapter but not all the detail.

The slide decks make frequent use of images and YouTube videos. All images and videos have been verified to be free from copyright infringement. For those images from the Creative Commons, a References slide is included at the end of each slide deck.

The project management concepts included in the slide decks, like the textbook, revolve around the ongoing case study. During each chapter, there is normally a few case study updates, where the project manager works her way through the project. To help facilitate the integration of the case study into the lecture, each case study update has been recorded and stored as a YouTube video. The slide decks contain links to these videos that may be played to the class (the videos contain closed captions so are also AODA compliant). This will then allow for a discussion and analysis of the actions taken during the case study.

During each lecture, the Discussion Questions at the end of each chapter may be used to facilitate student discussion and reflection. Students may be organized into groups or work on one or more individually. These could also be “in-class exercises” for submission by the end of class.

During class time, I also reserve time (usually about an hour or so) to review the work-in-progress planning documents of their group or individual projects (see the Suggested Project Assignments section below).

You are welcome to use these videos, or you may choose to remove them if you’d rather deliver the content in a different way. You are welcome to update the slide decks by adding or removing information as you see fit.

## Project Document Templates

Template files for the textbook's project documents are provided. These may be distributed to students as needed for the completion of project assignments. The templates provided are as follows:

- Ch 2 – Business Case Template
- Ch 2 – Project Charter Template
- Ch 3 – Stakeholder Register Template
- Ch 3 – Stakeholder Engagement Plan Template
- Ch 4 – Project Requirements Document Template
- Ch 4 – Project Scope Statement Template
- Ch 5 – Activity List Template
- Ch 5 – Milestone-Based Schedule Template
- Ch 5 – Activity-Based Schedule Template
- Ch 6 – Cost Estimates Template
- Ch 6 – Detailed Budget Template
- Ch 7 – Project HR Requirements Template
- Ch 7 – Project Roles and Responsibilities Template
- Ch 7 – RACI Chart Template
- Ch 8 – Quality Management Plan Template
- Ch 9 – Risk Register Template
- Ch 10 – Communication Management Plan Template
- Ch 10 – Project Documentation Guidelines Template
- Ch 10 – Meeting Agenda Template
- Ch 10 – Meeting Minutes Template
- Ch 11 – Project Status Report Template
- Ch 11 – Quality Assurance Plan Template
- Ch 12 – Issue Log Template
- Ch 12 – Change Request Template
- Ch 14 – Statement of Work Template
- Ch 14 – Request for Proposal Template
- Ch 15 – Final Project Report Template
- Ch 15 – Lessons Learned Report Template

For the templates, you are able to modify them as required if there are additional requirements or information that you would like to include. Of course, care should be taken to ensure that students are aware when your documents diverge from the textbook. I'd be certainly interested in your thoughts regarding the templates as this may be considered for future editions of the textbook.

## Scheduling Software

This textbook does not include instruction for a specific project scheduling system such as MS Project. Over the years, I've found that including instruction for a dependency-based system as MS Project tends to confuse students as they struggle with the intricacies of the scheduling software rather than work on understanding the concepts of project management. I've found this to be particularly true for business and communications students.

My philosophy is that students should learn the basics of project management (including scheduling) first and then undertake a software tool like MS Project in a subsequent course or at a later time. (*Note:* If you are planning to teach MS Project or similar, online resources such as Lynda.com, YouTube, or the Microsoft website often contain useful instructional videos.)

However, it is still useful for students to work with a basic Gantt chart tool—to be able to enter activities and visualize the resulting Gantt Chart. To fill this need, I developed an Excel system that I've named FastGantt. The system allows students to add activity information (phase, activity name, duration, activity start date) and who is working on the activity. The spreadsheet then renders a Gantt chart.

The system includes a **Setup** tab that allows for some system variables to be set and also a **Help** tab that provides information on how to use the system. Students are able to quickly understand how it works and have had minimal problems/questions over the years. The key things to keep in mind (and to stress to students) are the following:

- a) The software must be run as an Excel file. In particular, do not upload to Google Sheets as this will *not* work.
- b) The software will ask for macros to be enabled. Macros must be enabled for the system to function properly (no viruses are contacted in the file).
- c) The system is fairly locked down—with many locked fields. In particular, **cut and paste** is disabled (this messes up the formulas in the spreadsheet). Therefore, if an activity needs to be “inserted” into the middle of the file, the following should be done:
  - The new activity should be added to the bottom of the schedule.
  - The sort function should be performed (Ctrl+S), which will then sort the activity into the right place.

You are certainly welcome to use this system in your course. If you have any suggestions or feedback, I'm always interested in hearing about them.

## Suggested Syllabus

For the suggested syllabus below, the following course delivery assumptions are made:

- 14-week schedule (including a midterm and a final exam week)
- 3 hours per week of class time
- classes will consist of a blend of PowerPoint/lectures and in-class activities

In the event of a longer or shorter term, or if a subset of textbook chapters are included in the course, the topics may be redistributed as required.

<b>Week</b>	<b>Textbook Chapter/Topic</b>
1	Chapter 1 – Understanding the Project Environment
2	Chapter 2 – Starting the Project Chapter 3 – Stakeholder Planning
3	Chapter 4 – Scope Planning
4	Chapter 5 – Schedule Planning (up to Critical Path Analysis—An Overview)
5	Chapter 5 – Schedule Planning (Critical Path Analysis—An Overview)
6	Chapter 6 – Budget Planning
7	Chapter 7 – Project Team Planning Chapter 8 – Quality Planning
8	Midterm Exam
9	Chapter 9 – Risk Planning Chapter 10 – Communications Planning
10	Chapter 11 – Executing, Monitoring, and Controlling the Plan Chapter 12 – Managing Disruptions to the Plan: Issues and Change
11	Chapter 13 – Managing the Human Resources Aspects of the Project
12	Chapter 14 – Project Procurement Chapter 15 – Closing the Project
13	Chapter 16 – An Overview of Agile Delivery
14	Final Exam

## Suggested Project Assignments

In order to apply the project management concepts contained in the course, a major project assignment is often useful.

During the delivery of my own courses, I normally include a project assignment, weighted from 20% to 35% of the total mark for the course. During my courses, the project assignment is a group assignment, though it could also be run as an individual assignment.

There are three versions of the project assignment (see below).

### 1) Real-Life Project

For this assignment, a real-life project is planned and executed. The main conditions for the project are as follows:

- Must be performed on behalf of someone else (i.e., the Project Sponsor for the project)
- May not involve risk to the students (such as buying/handling alcohol, using construction tools, etc.)
- Must be of adequate size and complexity to be approved by the course instructor

Project teams consist of four students (maximum five). I've found that four is ideal as it creates some team dynamics, requires coordination and communication within the project, and also gives each student enough to do during the project.

I've found that having separate teams each with its own project works well. There may be a temptation to run one large project for the entire course and have each student team perform a part of it. This creates the need for a great deal of coordination between teams (usually performed by the instructor) and would likely result in each team only experiencing a small slice of the project.

The scope of the actual projects may be:

- business-related, e.g., plan and execute a grand opening for a new business
- service-related, e.g., plan and execute a community clean-up day at a local park
- charity-related, e.g., plan and execute a fundraiser for a local charity

While I have organized this assignment using all of the above project types, I usually direct the students to fundraiser projects. Reasons for this include:

- All students may contribute to a fundraiser as it does not require special prerequisite knowledge or skills
- Allows the student teams to be creative and/or plan the fundraiser according to their interests
- Helps make students aware of the social agencies in the community and the benefits of the non-profit sector

I've organized this assignment where the students find their own charity (as part of their project planning). In other instances, I've contacted an organization prior to the course starting and then directed all student teams to organize fundraisers on behalf of this one charity. Both approaches have their advantages.

- When student teams find a charity, it leads to possibly greater commitment as they may choose an organization that they are personally connected to.
- Where there is one charity for all teams, a representative of the charity may come into class to speak to the entire class. It is also easier for the instructor to follow-up with the charity to make sure that each team follows through on their commitments, etc.

In terms of evaluation:

- A list of project documents is required (primarily the planning documents from the course plus Status Reports and Closing documents).
- During class each week, I meet with each group to review their progress on one or more of their planning documents (small mark given for each review meeting). This is done so that they don't save all the documentation to the very end of the course.
- They then receive an evaluation for their final set of project documents (plans, status reports, etc.) and an evaluation for the success of their project.

## **2) Planned Project**

For this assignment, each project team plans a potential project but does not follow through on the execution. Because the project is not going to be executed, the team may plan larger projects such as the planning of a major concert or the renovation of a kitchen.

While the real-life project is performed as a group project, the planned project may either be a group project or individual assignment.

In terms of evaluation, it is similar to the real-life project.

- A list of project documents is required.
- During class each week, I meet with each group (or individual) to review their progress on one or more of their planning documents (small mark given for each review meeting). This is done so that they don't save all the documentation to the very end of the course.
- They then receive an evaluation for their final set of project documents (plans, status reports, etc.).
- Since the project will not be executed, the success of the project's outcomes cannot be evaluated.

## **3) Course as Project**

For this assignment, each student is asked to imagine the course itself as the project. That is, they are the Project Manager that is charged with the successful completion of their course. They then proceed to create the various planning documents (e.g. Project Charter, Stakeholder documents, WBS, etc.).

I've found this process to be a useful exercise, particularly for undergrad students who have limited project experience. It very much personalizes their learning. It also requires them to work individually which requires them to learn the various processes and tools.

## **Test Bank**

For each chapter of the textbook, exam questions are provided in the following formats:

- multiple choice questions
- true/false questions
- short answer questions
- problem-based questions

These questions may be used within tests, midterm exams, or final exams.

## Case Studies

There are two sets of case studies that are included:

- Stand-alone case studies
  - Over 20 stand-alone case studies are included.
  - Each follow a common format: a situation is introduced, and then various options are indicated with one option selected. The case study then describes the early progress of the project.
  - Students may then be asked to create the various planning documents such as the Business Case, WBS, etc.
- Textbook (DecoCam) case study extensions
  - Two “extensions” to the textbook (DecoCam) case study have been created.
  - In each case study, additional events are introduced for the DecoCam project.
  - Students may then be asked to consider how the various planning documents should be updated or how the issues introduced should be solved.