

Unit of Study Guide: PRJ5003 Project Constraint Management Trimester 3, 2023

Overview

The PRJ5003 Project Constraint Management unit provides the conceptual and practical means for applying techniques to effectively and efficiently evaluate competing project demands of scope, schedule and cost. Unit topics provide a comprehensive coverage of project scope management, scheduling, and planning; project resource optimisation, cost management, monitoring of progress, and the steps required for project closure. Through learning and assessment activities, students define the scope of a project's activities; estimate the schedule or duration required to complete the project (Critical Path Method and PERT analysis); and track project constraints through cost estimation and forecasting (Earned Value Management).

| Course(s) | Graduate Certificate in Project Management (GradCertPM) |
|------------------------|--|
| | Graduate Diploma of Project Management (GradDipPM) |
| | Master of Project Management and Business (MPMB) |
| Core or Elective | Core: Graduate Certificate in Project Management (GradCertPM) |
| | Graduate Diploma of Project Management (GradDipPM) |
| | Master of Project Management and Business (MPMB) |
| Credit Points | 8 credit points |
| Duration | 12 weeks (10 teaching weeks; 1 study week; 1 final assessment week) |
| Level | Postgraduate- Intermediate |
| Student Workload | Students should expect to spend approximately 13 hours per week |
| | over 12 weeks (totalling approximately 156 hours) on learning |
| | activities for this unit. |
| Essential Requirements | Nil |
| Mode(s) of Delivery | Face to Face on Site / E-learning (Online)/ Mixed/blended/Full-time /Part-time |
| Pre-Requisites | None |
| Unit Coordinator | As per current <u>timetable</u> |
| Contact Information | Consultation: 1 hour scheduled session |



Unit Learning Outcomes

On successful completion of this units, students will be able to:

ULO1 Identify key aspects of scope, schedule, and cost management as per best project management practices

ULO2 Effectively write and present project planning and controlling reports

ULO3 Analyse a project case and develop a constraint management plan

Productively work in diverse teams to deliver agreed outcomes ULO4

Weekly Schedule

Detailed information for each week's activities can be found in the unit's weekly modules in Canvas.

| Week | Topic |
|---------|--|
| Week 1 | Project Constraint Management Introduction |
| | Introduction to Project Management Knowledge Areas, focusing on Project |
| | Planning, Controlling and Monitoring Processes; Organisational Assets, and |
| | Environmental factors; Discussing Project Charter |
| Week 2 | Project Scope management- Part 1 |
| | Define scope process; Project Scope Management Knowledge Area and its |
| | processes; Collect requirements process; Define scope process |
| Week 3 | Project Scope management- Part 2 |
| | Create WBS; Validate Scope; Scope baseline; Control Scope |
| Week 4 | Project Scheduling and planning- Part 1 |
| | Schedule Management and its processes; Plan schedule week management |
| | process; Define activities process; Sequence activities process |
| Week 5 | Project Scheduling and planning- Part 2 |
| | Precedence Diagramming Method; Network diagrams (AON, AOA); Critical path |
| | method (CPM); Estimate activity duration. |
| Week 6 | Project Scheduling and planning- Part 3 |
| | Three point (PERT); Project schedule baseline; Change request; Control Schedule. |
| Week 7 | Project Resources optimisation |
| | Project resource types; Project resource sheet and histogram; Resources |
| | optimisation techniques |
| Week 8 | Project Cost Management |
| | Plan cost management; Estimating cost; Determine budget; Time phased budget |
| Week 9 | Project performance progress-monitoring and controlling |
| | Earned Value Analysis (EVA); Forecasting (ETC, EAC) |
| Week 10 | Project Closing Process |
| | Closing project or phase; Project termination; Lessons learned |
| Week 11 | Study Week |
| Week 12 | Final assessment submission |

Assessments



- 1. All assessments are compulsory.
- 2. To pass the unit students must:
 - achieve a total of 50% or more of marks offered; and
 - secured 50% or more in all individual invigilated assessments; and
 - have attempted all assessments.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision.

- 3. The Board of Examiners may grant a supplementary assessment where a student:
 - achieves an aggregate total of 45% or more but less than 50%; and
 - has 45% or more in all individual invigilated assessments in the unit (weighted average considered for the weekly Quizzes); and
 - has attempted all assessments; and
 - has a recommendation for supplementary assessment by the Unit Coordinator and the Head of Discipline.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision. Attendance and engagement in class will be considered.

- 4. APIC awards common result grades as set out in the Award of Grade Policy.
- 5. Detailed information for each assessment can be found on the Unit's Home Page and in the Assessment Brief.

| Assessment Task | Туре | Weight | Length | Due | ULOs Assessed |
|---|------------------------|--------|---|----------------------|----------------------|
| Assessment 1: Quizzes- Individual and invigilated weekly online in classroom quiz assessing weekly content. | Individual Invigilated | 30% | 20-30 mins each (Equiv. 3000 words) | Week3 -Week 10 | ULO1 |
| Assessment 2: Report- Group Project Management Plan requiring analysis of a real-life project to develop and report on scope, schedule, and cost plan for this project. | Group | 30% | 4000 words | Week 9 | ULO2 ULO3 ULO4 |



| Assessment 3: Presentation - | Individual | 40% | Supporting | Week | ULO1 |
|---|------------|-----|------------|------|------|
| Individual presentation of project plan | | | documents | 11/ | ULO2 |
| and status to a sponsor for a project | _ | | (1000 | 12 | ULO3 |
| case accompanied by visual aids | | | word) | | |
| including PPTs (equivalent 1000 | | | 15 mins | | |
| words) and supporting documents | | | (equiv. | | |
| (equivalent 1000 words). | | | 1000 | | |
| | | | words) | | |
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equiv. – equivalent word count based on the Assessment Load Equivalence Guide. It means this assessment is equivalent to the normally expected time requirement for a written submission containing the specified number of words.



Course Reserves

Course Reserve includes all required resources and reading material for the unit of study. You can access Course Reserve via <u>APIC Library</u> or via the Course Reserve link on the unit's homepage.

Prescribed text(s):

Larson, EW & Gray, CF 2021, *Project management: The managerial process*, 8th edn, McGraw-Hill Education, New York, N.Y.

Recommended Readings:

Grit, R, 2021, *Project Management: A Practical Approach*, Taylor and Francis, Milton, doi: 10.4324/9781003194392.

Kerzner, H, 2017, Project management a systems approach to planning, scheduling, and controlling, 12th ed., John Wiley & Sons, Inc.

Konior, J & Szóstak, M, 2020, 'The S-Curve as a Tool for Planning and Controlling of Construction Process—Case Study', *Applied Sciences*, vol. 10, no. 6, p. 2071–, doi: 10.3390/app10062071.

Rowe, SF, 2020, Project management for small projects, Berrett-Koehler.

Project Management Institute 2021, The standard for project management and *A guide to the project management body of knowledge*, 7thedn, Project Management Institute, Newtown Square, Pennsylvania.

Other Recommended Resources:

Project Management Journal: https://journals.sagepub.com/home/pmx

Harvard Business Review: www.hbr.com

PM Times: https://www.projectimes.com/articles.html

Project Smart: http://www.projectsmart.com/

Project Management Institute: https://www.pmi.org/

Australian Institute of Project Management: https://aipm.com.au/

Academic Integrity

Ethical conduct and academic integrity and honesty are fundamental to the mission of APIC and academic misconduct will not be tolerated by the College. It is the responsibility of every student to make sure that they understand what constitutes academic misconduct and to refrain from engaging in it. Please refer to APIC's Academic Integrity Policy for further details.

apicollege.edu.au



Other Important Information and Links

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|---|---|
| Special consideration | Late submission |
| If your academic work is impacted by significant documented illness, hardship, or other adverse circumstances beyond your control, you may make an application for Special Consideration. Please refer to the <u>Assessment Policy</u> for further details. | Penalties apply when work is submitted after the due date without approval. Please refer to the <u>Assessment Policy</u> for information about late submission. |
| Assessment appeals | Award of grades |
| If you are concerned about a mark you have received for an assessment or final grade, you may apply to formally appeal the grade. Please see the <u>Assessment Policy</u> for further details. | APIC awards common result grades, set out in the Award of Grade Policy. |
| Expectations of student conduct | Study resources |
| Students are expected to conduct themselves in a manner that is consistent with a safe and respectful study environment. More | APIC Library and Student Learning Support resources and services can be accessed via the |
| information can be found in the <u>Student Code</u> <u>of Conduct</u> . | Student Lounge or your Dashboard on the OLS (Canvas). |
| information can be found in the Student Code | |

Changes and Updates to the Unit of Study Guide

This Unit of Study Guide may be updated and amended from time to time. Students will be notified of any changes to the unit via the Online Learning System (Canvas) space for the unit.

This Unit of Study Guide was last modified on 25 Sep 2023