



COIT12208 ICT Project Management

Term 2 - 2020

Profile information current as at 14/12/2025 05:23 pm

All details in this unit profile for COIT12208 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

In this unit, you will learn key concepts of Information and Communication Technology Project Management from both a traditional waterfall and Agile perspective. You will apply project management principles and use project management software with the aim of delivering successful projects. Industry standards, quality assurance, professional ethics, social, cultural, and legal issues relevant to the theories and principles of project management will also be covered.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: COIT11226 Systems Analysis Anti-requisite: COIS13064 ICT Project Management

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 2 - 2020

- Brisbane
- Cairns
- Melbourne
- Online
- Rockhampton
- Sydney
- Townsville

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Presentation**

Weighting: 20%

2. **Online Quiz(zes)**

Weighting: 30%

3. **In-class Test(s)**

Weighting: 50%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student Evaluations

Feedback

There is too much content in the unit

Recommendation

Materials that are less relevant to ICT project management will be removed.

Feedback from Student Evaluations

Feedback

Students appreciated aspects such as the instant feedback from some of the assessments, the practical in-class MS Project and MS Excel exercises and that real-life, industry scenarios and techniques are used.

Recommendation

Introduce additional real-life, industry material.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Apply Agile project scoping, scheduling and velocity management tools and procedures
2. Apply predictive project planning, scheduling and resource management tools and procedures
3. Evaluate project status and recommend appropriate corrective action where necessary
4. Assess the ethical, social, cultural and legal impacts of projects on diverse stakeholders.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.

ACS members can use the tool MySFIA to build a skills profile at

<https://www.acs.org.au/professionalrecognition/mysfia-b2c.html>

This unit contributes to the following workplace skills as defined by SFIA. The following version 7 SFIA codes are included:

- [Strategic planning](#) ITSP
- [Business analysis](#) BUAN
- [Project management](#) PRMG
- [Programme management](#) PGMG
- [Portfolio management](#) POMG
- [Change management](#) CHMG
- [Requirements definition and management](#) REQM
- [Information systems coordination](#) ISCO
- [Systems development management](#) DLMG

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Presentation - 20%	•			•
2 - Online Quiz(zes) - 30%		•	•	•
3 - In-class Test(s) - 50%	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•			•
2 - Problem Solving	•	•	•	
3 - Critical Thinking	•	•	•	•
4 - Information Literacy				
5 - Team Work				
6 - Information Technology Competence	•	•	•	
7 - Cross Cultural Competence				
8 - Ethical practice	•			•
9 - Social Innovation				
10 - Aboriginal and Torres Strait Islander Cultures				

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Presentation - 20%	•	•	•			•		•		
2 - Online Quiz(zes) - 30%		•	•			•		•		
3 - In-class Test(s) - 50%		•	•					•		

Textbooks and Resources

Textbooks

There are no required textbooks.

Additional Textbook Information

Resources are available through the CQUni Library website.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Oracle VM Virtual Box
- Webcam and headset
- Access to Microsoft Visio
- Access to Microsoft Office
- Access to Microsoft Project 2016.
- Taiga server
- GitLab server
- Node.js including JSHint, c8 and sloc

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Jamie Shield Unit Coordinator

j.shield@cqu.edu.au

Schedule

1 Introduction - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
ICT project management concepts	<p>The weekly readings are available via the unit website:</p> <ul style="list-style-type: none">• Part 1 Introduction and Overview (Haugan 2010). Haugan, GT 2010. <i>Project management fundamentals: key concepts and methodology</i>, 2nd edn, Oakland, Berrett-Hoehler.• Pp. 26-42 of 2 Scrum and eXtreme programming (Hunt 2018). Hunt, A 2018. <i>PMI-ACP project management institute agile certified practitioner exam study guide</i>.• Pp. 115-128 of 4 Agile Initiation and Stakeholder Engagement (Hunt 2018)	

2 Agile - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Agile scope, schedule and risk management	<ul style="list-style-type: none"> • Pp. 180-189 of 6 Agile Estimation and Planning (Hunt 2018) • Pp. 218-223 of 7 Effective Team Performance on Agile Projects (Hunt 2018)
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3 Risks - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Prioritisation of ICT risks and assessment of risk responses	<ul style="list-style-type: none"> • 4 Teams (Lientz & Larssen 2006). Lientz, BP & Larssen, L 2006. <i>Risk management for IT projects: how to deal with over 150 issues and risks</i>, Routledge. 	

4 Quality - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Assessment using ICT metrics, Pareto charts and Fault Tree Analysis	<ul style="list-style-type: none"> • 8 Project Quality Management (PMI 2013). PMI 2013, <i>Software extension to the PMBOK guide</i>. 5th edn, Project Management Institute. 	

5 Predictive Scope & Schedule - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Modelling of ICT scenarios in MS Project	<ul style="list-style-type: none"> • 5 Developing the Schedule (Gido 2018). Gido, J 2018. <i>Successful project management</i>. 7th ed., Cengage. 	Adaptive PM Presentation Due: Week 5 Friday (14 Aug 2020) 11:59 pm AEST

Non-teaching Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
	Non-teaching week	

6 Predictive Resourcing, COCOMO, PERT & Monte Carlo - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Improving the estimation of ICT task durations		Quizzes Due: Week 6 Friday (28 Aug 2020) 11:59 pm AEST

7 Predictive Costs including Earned Value Management - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Evaluation of a project's schedule and costs	<ul style="list-style-type: none"> • 7 Determining Costs, Budget and Earned Value (Gido 2018) 	

8 DevOps - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Using automation tools to support DevOps	<ul style="list-style-type: none"> • 3 Key Aspects of Additional Agile Methodologies (Hunt 2018) 	

9 Stakeholders & Organisational Structures - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Designing development organisational structures based on ICT systems architectures		Quiz 2

10 Review - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Practice in-class test and review		

11 In-class test - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
In-class test		In-Class Test Due: Week 11 Monday (28 Sept 2020) 6:00 am AEST

Term Specific Information

Unit Coordinator: Jamie Shield, Cairns,

j.shield@cqu.edu.au,

Office: 07 4037 4750

Some assessments in this unit will take place in-class. If you attend online, you will need access to a webcam, microphone and speakers (or headset).

Assessment Tasks

1 Adaptive PM Presentation

Assessment Type

Presentation

Task Description

This is a condensed version of the assignment. Please refer to the unit website for the full version.

Time Management

Please complete the unit's Weeks 1 & 2 activities before attempting this assignment. You will be able to finish this assignment after completing the unit's Week 3 activities. You are encouraged to use the weekend at the end of Week 3 to finalise this assignment.

Objectives

The aim of this assignment is for you to gain adaptive project management experience. You will act as the project manager for an adaptive ICT project. You will need to perform tasks such as the following:

- Create and maintain a product backlog
- Develop a sprint plan
- Manage risk issues and
- Present a sprint review.

You may complete this assignment alone or in a group of up to three people.

The project is expected to run for 2 sprints. The first sprint has already been completed; you will review the first sprint and plan the second sprint.

1. Create plan to reflect project progress

You will be provided with a rough project plan and development files of an ICT project representing progress made in the project at the end of its first sprint, that is, Sprint 1. You will need to create a plan using the specified project management tool to reflect the project status at the end of Sprint 1.

2. Create Sprint 2 Plan

You need to create a plan for Sprint 2.

3. Present Sprint 1 Review and Sprint 2 Plan

You will present a review of Sprint 1 and your Sprint 2 plan.

Each team member should talk for between 3 to 5 minutes each.

Distance students: you are to record and submit your presentation. On-campus students: you may either submit a recording or present in-class in Week 5.

You must present live in front of at least one other person. If you record, the video should be framed to include the presenter(s), your audience and your desktop(s).

Alternative Project

With the written permission of the unit coordinator, you may work on another Agile systems development project for, for example, your work, an open-source community or a charity. You need to demonstrate the current status of the project to the unit coordinator before permission will be given for an alternative project.

Teams

You may complete this assignment alone or in a group of up to three people. You will form your own teams.

Plagiarism

Sharing ideas about project management concepts and techniques between groups is encouraged. Any ideas you reuse should be referenced. Sharing of project management files or copying, for example, user stories, subtasks, issues or controls, between groups will be considered plagiarism. If you are in doubt about whether you can share something, first obtain email consent from your lecturer.

Assessment Due Date

Week 5 Friday (14 Aug 2020) 11:59 pm AEST

All submissions are due by the deadline. Oncampus students: you have the option to present live in your Week 5 class.

Return Date to Students

Week 7 Friday (4 Sept 2020)

Informal feedback might be provided during in-class presentations. Your marks and formal feedback will be returned two weeks after the deadline.

Weighting

20%

Assessment Criteria

The *Stage Presence* criteria will be marked individually. Your mark for *Presentation content* will be marked individually but may be affected by your entire groups' *Presentation content*. Subject to moderation, students in a group will usually receive the same mark for all other criteria.

The following table is indicative of the actual marking criteria. The criteria are equally weighted. Please check the unit website for updates.

	100%	75%	50%	25%	0%
Backlog	Your backlog contains appropriate, high value user stories and is appropriately prioritised.		A significant user story missing or minor prioritisation errors.	Multiple user stories missing or major prioritisation errors.	Not implemented
User Stories	High quality user stories that adhere to the user story template and INVEST, e.g. independent, valuable for users & testable via excellent acceptance criteria. Estimated effort & value are included. At least 5 quality user stories for individuals; 8 for pairs & 10 for triplets.		Some user stories are lifestyle specific, e.g. "testing" a feature.		Not implemented.
Sprint plans	Maximises value through prioritisation. Excellent velocity management.		Poor sprint plan user story choice.		Not implemented
Taskboard	Excellent decomposition of user stories into subtasks that focus on developers. State management of subtasks accurately reflect the project status.		Vague or ambiguous subtasks.	Multiple subtasks left in incorrect states.	Not implemented
Issues	Excellent identification of risk issues & specification of realistic controls. Issues and controls are specified				Not implemented

Stage presence	Excellent stage presence including well prepared, stands up straight, loud clear voice, good eye contact, does not speak too fast or too slow; appropriate use of cue cards: does not read; appropriate use of time. Excellent gestures, e.g. precision grip & and lack of adaptor gestures (e.g. no fidgeting); excellent use of space, e.g. moves around stage but does not pace.				
Presentation content	Excellent sprint review. Excellent walkthrough of user story acceptance criteria. Excellent presentation of quality project management plan using the PM tool.			Poor walkthrough of acceptance criteria. Poor discussion or presentation of scope management: backlogs, size estimates, taskboards, or burndown chart. Poor discussion of quality and risk management.	

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Extract your project plan from the project management tool and submit your plan to the unit website. All team members should be added as Members of the project plan. All group members must submit. Oncampus students: you will either submit your video, a link to your video or present in the Week 5 class. Distance students: you are to submit your video or a link to your video. Plagiarism will be dealt with according to University policy. Plagiarism penalties and academic misconduct charges may apply to all group members. Your assignment might be assigned a zero grade or reported for further action. Incomplete submissions, for example, due to insufficient permissions or corrupt files, might not be marked or a late penalty might be applied. The lecturer might record presentations for moderation purposes. Groups must be prepared to present even if one or more team members are not present at the Week 5 class. Students who do not present will receive no mark for the presentation components of the assessment.

Learning Outcomes Assessed

- Apply Agile project scoping, scheduling and velocity management tools and procedures
- Assess the ethical, social, cultural and legal impacts of projects on diverse stakeholders.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Technology Competence
- Ethical practice

2 Quizzes

Assessment Type

Online Quiz(zes)

Task Description

This is a condensed version of the assignment. Please refer to the unit website for the full version.

Time Management

Please complete the unit's activities up to and including Week 4 before attempting Quiz 1. You will be able to finish Quiz 1 after completing the unit's Week 5 activities. You are encouraged to use the non-teaching week between Weeks 5 and 6 to finalise Quiz 1.

Please complete the unit's activities up to and including Week 7 before attempting Quiz 2. You will be able to finish Quiz 2 after completing the unit's Week 8 activities. You are encouraged to use the weekend at the end of Week 8 to finalise Quiz 2.

Objectives

The aim of this assignment is for you to gain experience with quality and risk management and predictive project management. You are to complete project management tasks for a collection of project scenarios and simulations.

Task Description

You will manage project constraints such as quality, risk, scope, schedule, human resources and stakeholders using, for example, MS Project and MS Excel. You will create recommendations to proactively manage or correct project issues.

You will complete scenarios such as the following:

- Model scenarios using MS Project
- Manage scheduling using the Critical Path Method (CPM).
- Manage quality using Fault Tree Analysis (FTA)
- Create and interpret control charts
- Calculate Risk Leverage Factors to assess the cost of risk responses
- Calculate Expected Monetary Values (EMV not EVM) to assess risk responses
- Calibrate a COCOMO model to predict the duration of a project
- Apply PERT and Monte Carlo to better understand a project's duration and
- Manage schedule and costs with Earned Value Management (EVM) techniques

The scenarios will be distributed to you in two quizzes.

Quiz 1

- Attempts: Although multiple submissions are possible, only the last submission of Quiz 1 will be marked.
- Feedback: You will receive feedback for Quiz 1 two weeks after the due date.
- Availability: Quiz 1 will be available by Week 4.
- Weight: Quiz 1 is worth 15% of the unit.

Quiz 2

- Attempts: You have unlimited attempts at Quiz 2 until the deadline.
- Quiz 2 will provide feedback before the due date.
- Availability: Quiz 2 will be available by Week 7.
- Weight: Quiz 2 is worth 20% of the unit.

Plagiarism

The assignment is individually assessed. Sharing of any files related to this assignment will be considered plagiarism. All your submissions may be checked for plagiarism.

Number of Quizzes

2

Frequency of Quizzes

Other

Assessment Due Date

Week 6 Friday (28 Aug 2020) 11:59 pm AEST

The quizzes have different due dates. Quiz 1 is due in Week 6. Quiz 2 is due in Week 9.

Return Date to Students

Week 8 Friday (11 Sept 2020)

Quiz 1 feedback will be returned in Week 8. Quiz 2 feedback is provided after each submission of the quiz. Feedback and marks for either quiz might be altered by the moderation process.

Weighting

30%

Assessment Criteria

The assignment is individually assessed. You will be assessed on aspects such as the following. Most of the criteria will be weighted similarly. Refer to the quizzes for question weights. Some criteria such as those related to *Scope and schedule management in MS Project*; and *Managing costs using EVM* will be more heavily weighted.

Criteria	Description
Calculating risk leverage factors to assess the cost effectiveness of risk responses	Correct calculations
Create or interpret a decision tree and calculate expected monetary values to assess risk response options	Correct analysis of the scenario. Correct calculations. Appropriate interpretation of results.
Focus quality management through Fault Tree Analysis	Correct analysis of the scenario and calculations
Identify issues with testing and development processes by calculating defect rates	Appropriate interpretation and recommendations. Correct calculations.
Collect ICT project metrics such as defect rates, SLOC and cyclomatic complexity	Correct metrics collected and identified.
Focus code reviews through analysis of cyclomatic complexity	Correct interpretation of scenario and general and specific function recommendations.
Predict the number of escaped bugs in a system	Correct interpretation of scenario and correct calculations.
Develop or interpret run charts and control charts to analyse trends in project metrics, e.g. defect rates and requirements volatility	Appropriate interpretation and recommendations. Recommendations consider the context of the project. Trend lines only include relevant data. Correct calculations. Charts have appropriate titles, legends and units. Charts use correct data.
Focus quality management by developing and interpreting Pareto charts	Appropriate interpretation and recommendations. Analysis is specific to the generated results. Correct calculations. Charts have appropriate titles, legends and units. Charts use correct data.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

The quizzes need to be completed on the unit website. You will upload files and type answers inside the quizzes.

Learning Outcomes Assessed

- Apply predictive project planning, scheduling and resource management tools and procedures
- Evaluate project status and recommend appropriate corrective action where necessary
- Assess the ethical, social, cultural and legal impacts of projects on diverse stakeholders.

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Technology Competence
- Ethical practice

3 In-Class Test

Assessment Type

In-class Test(s)

Task Description

This is a condensed version of this assignment description. Please refer to the unit website for the full version.

The in-class test will take place in your Week 11 class. Online in-class tests require a webcam and headset. For academic integrity purposes, you will be required to share your webcam and desktop stream on a tool such as Zoom.

Objectives

In this assessment, you will apply common project management techniques to, for example, evaluate the status of a project and recommend corrective action where necessary.

You will need to be able to perform tasks such as the following:...

- Review and plan sprints
- Recommend corrective actions by interpreting burndown charts
- Manage scheduling using the Critical Path Method (CPM)

- Cost effectively crash a project
- Manage budgets and schedules using Earned Value Management
- Estimate task durations using models such as COCOMO, PERT and Monte Carlo
- Collect ICT project metrics such as defect rates, SLOC and cyclomatic complexity
- Develop or interpret run charts and control charts to analyse trends in project metrics
- Focus quality management by developing and interpreting Pareto charts
- Focus quality management through Fault Tree Analysis
- Calculate risk leverage factors to assess the cost effectiveness of risk responses
- Create or interpret a decision tree and calculate expected monetary values to help choose between risk response options
- Use techniques and formulae of Time Value of Money, Present Value and Return on Investment to prioritise projects
- Systematically select projects using pairwise ranking
- Design or critique the organisational structure of a project

You will be provided with one or more snapshots of an ICT project. You will need to construct or modify files such as MS Project files and MS Excel spreadsheets.

Assessment Due Date

Week 11 Monday (28 Sept 2020) 6:00 am AEST

You are to attend and complete the assessment in-class in Week 11.

Return Date to Students

Your marks might not be available until Certification of Grades day.

Weighting

50%

Minimum mark or grade

To pass this unit you must score at least 40% in the in-class test (20/50) and 50% overall.

Assessment Criteria

The following table contains indicative criteria.

Criteria	Description
Prioritise a product backlog	Your backlog contains appropriate, high value user stories and is appropriately prioritised.
Develop quality user stories with effort and value estimation and acceptance criteria	High quality user stories that adhere to user story template and INVEST, e.g. independent, valuable for users & testable via excellent acceptance criteria. Estimated effort & value are included. At least 5 quality user stories for individuals; 8 for pairs & 10 for triplets.
Recommend corrective actions by interpreting burndown charts	Appropriate interpretation of burndown chart and recommendation(s).
Manage Taskboard	Excellent decomposition of user stories into subtasks that focus on developers. State management of subtasks accurately reflect the project status.
Manage a taskboard, for example, to limit work in progress (WIP) and maintain flow	Appropriate strategies used.
Assess risks using a qualitative risk assessment chart	Excellent identification of appropriate risks & specification of realistic controls appropriate for the project.
Calculating risk leverage factors to assess the cost effectiveness of risk responses	Correct calculations
Create or interpret a decision tree and calculate expected monetary values to assess risk response options	Correct analysis of the scenario. Correct calculations. Appropriate interpretation of results.
Focus quality management through Fault Tree Analysis	Correct analysis of the scenario and calculations
Identify issues with testing and development processes by calculating defect rates	Appropriate interpretation and recommendations. Correct calculations.

Collect ICT project metrics such as defect rates, SLOC and cyclomatic complexity	Correct metrics collected and identified.
Focus code reviews through analysis of cyclomatic complexity	Correct interpretation of scenario and general and specific function recommendations.
Predict the number of escaped bugs in a system	Correct interpretation of scenario and correct calculations.
Develop or interpret run charts and control charts to analyse trends in project metrics, e.g. defect rates and requirements volatility	Appropriate interpretation and recommendations. Recommendations consider the context of the project. Trend lines only include relevant data. Correct calculations. Charts have appropriate titles, legends and units. Charts use correct data.
Focus quality management by developing and interpreting Pareto charts	Appropriate interpretation and recommendations. Analysis is specific to the generated results. Correct calculations. Charts have appropriate titles, legends and units. Charts use correct data.
Develop a scope management plan, requirements management plan and a requirements traceability matrix.	Appropriate metrics provided. Appropriate processes identified. Appropriate requirements provided. Requirements appropriately traced.
Develop 2-levelled Work Breakdown Schedules to separate project versus product activities	Appropriate separation of project versus product activities.
Develop MS Project Work Breakdown Schedules using concepts such as milestones, summary tasks	Names adhere to Biafore (Chp. 4, 2010). Biafore, B 2010, Microsoft Project 2010: The Missing Manual, Pogue, O'Reilly. Appropriate use of milestones and summary tasks.
Perform rolling wave elaboration on a Work Breakdown Schedule	Appropriate activities elaborated appropriately.
Create a Work Breakdown Schedule task, for example, by specifying its name, resources, predecessors, task type and work	Appropriate modelling of scenario.
Simplify Work Breakdown Schedules using milestones	Appropriate use of summary tasks, milestones and predecessors. Precedence network is equivalent. No tasks orphaned. No linking of summary tasks.
Develop Work Breakdown Schedules for scenarios such as team development of microservices, progressive feeding of work from analysis to design, and tasks with lag	Correctly implemented in this unit's style as presented in the unit material using MS Projects milestones and predecessor types
Manage scheduling using the Critical Path Method (CPM)	Correct application using this unit's style
Manage resource overallocations	Appropriate choice of strategy.
Cost effectively crash a project	Correct calculations.
Perform resource levelling and project crashing using MS Project	Correct application of MS Project techniques. Project crashes are performed cost effectively.
Calibrate a COCOMO model to predict the duration of a project	Correct calculation using the simplified model presented in the unit materials
Apply PERT and Monte Carlo to better estimate the average and variations, e.g. of a project's duration.	Correct application of the MS Project techniques and formulae presented in the unit materials.
Manage costs by applying Earned Value Management (EVM) techniques in MS Project and interpreting the results.	Correct application of the MS Project techniques and formulae presented in the unit materials. Appropriate interpretation of the results.
Perform timely termination or capital redeployment of a project	Correct calculations and appropriate recommendations.
Design or critique the suitability of a system's architecture for DevOps	Appropriate recommendations.
Use techniques and formulae of Time Value of Money, Present Value and Return on Investment to prioritise projects	Correct calculations and appropriate recommendations.
Systematically select projects using pairwise ranking	Correct use of technique and appropriate recommendations.

Design or critique the organisational structure of a project	Appropriate interpretation of scenario and recommendations.
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Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

You are to submit written answers, calculated answers, and such as MS Project files and MS Excel spreadsheets during the in-class test. Please ensure you submit the correct files as corrupt, missing files or inaccessible files might not be marked at the discretion of the unit coordinator. Turnitin® might be used to process any submission. Your desktop and webcam streams might be recorded but your file system will NOT be accessible. You are required to do your own work, maintaining academic integrity with all honesty. If the marker suspects a breach of academic integrity, you might be requested to attend a real-time interview via Zoom to confirm your understanding of your submission. Inability to explain or justify given solutions might result in allegations of academic misconduct. If you are unable to take the in-class test on the specified date due to illness or some other exceptional circumstances, you need to apply for a Deferred Assessment via the Assessment Extension Request Link on the Moodle unit page and supply the necessary documentation. Be aware that Deferred Assessment applications will be refused if there are not sufficient grounds and/or supporting documentation. Note also that a Deferred Assessment is NOT a normal extension. Should your application be accepted, you will be required to take a different assessment at a specified time up to several weeks after the Term grades are certified. This will mean you will not receive a Term grade at the normal certification time.

Learning Outcomes Assessed

- Apply Agile project scoping, scheduling and velocity management tools and procedures
- Apply predictive project planning, scheduling and resource management tools and procedures
- Evaluate project status and recommend appropriate corrective action where necessary

Graduate Attributes

- Problem Solving
- Critical Thinking
- Ethical practice

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem