Title	Apply and evaluate digital tools to support the development and implementation of an IT project		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: demonstrate knowledge and concepts of digital project planning and management tools as commonly used in information technology; apply knowledge and concepts of digital project planning and management tools to contribute to project implementation, documentation and evaluation, and meet requirements of an information technology project brief.
	This unit standard has been developed primarily for assessment within programmes leading to the New Zealand Certificate in Information Technology Essentials (Level 4) [Ref: 2594].

Classification	Computing > Generic Computing

Available grade	Achieved

Guidance Information

1   Recommended skills and knowledge:
Unit 29790, *Use digital tools to create and monitor a project plan*, or demonstrate equivalent knowledge, skills or experience.

2   Assessment, where applicable, will be conducted in and for the context of real or realistic situations and/or settings, and be relevant to current and/or emerging practice. The assessor may gather evidence over time from a range of scenarios rather than using one assessment where the learner has to demonstrate all of the required skills. The assessment context for this unit standard must be suitable to meet the criteria for level 4 in the NZQF Level Descriptors, which are available by searching for "level descriptors" at www.nzqa.govt.nz.

3   A *brief* will be supplied to the learner, and must clearly describe both the desirable outcomes sought and the constraints to be met by the solution. It contains requirements and specifications against which the success or otherwise of the project planning and management can be evaluated. The project may be either a straightforward project or a section of a larger IT project. The brief can be supplied as part of the learners employment (in the case of workplace assessment) or in response to the needs of an organisation.

4   Experiential knowledge and concepts of project management and planning tools, which include project management methodologies, project lifecycle, and use of planning tools that underpin the theory and practice of project management, will be covered in an IT context to provide learners with a foundation for project management within the IT profession.

Integrated assessment linked to unit standard 29802 *Design, create, operate, and test a relational database to address an organisational information system need,* 29812 *Apply knowledge and concepts of web design and scripting to plan, create and test an interactive user interface* or 29813 *Apply essential knowledge and concepts of software development to create a program,* may be suitable for defining the IT project context.

5   Definitions
Control processes refer to audits, security, reviews, checks, control systems and mechanisms.
Digital tools may be both hardware (digital devices) and software (applications and programs).
Information Technology (IT) is the common term for the entire spectrum of technologies for information processing and related to computing technology, such as networking, hardware, software, the internet or the people that work these technologies.
Project is a defined series of coordinated tasks with a defined outcome, start and finish dates/times.
Project Management Methodology is a strictly defined combination of logically related practices, methods and processes that determine how best to plan, develop, control and deliver a project through to completion and termination. It is a systematic and disciplined approach to project design, execution and completion.
Project plan refers to details of how the project will be executed, including management of the project in relation to the project parameters.
Project management tools refer to project management software; technical resources required for project; Gantt and bar charts; critical path method; cost schedule control system; logistics support analysis; life cycle cost analysis; spreadsheets.
Project planning tools refer to: brainstorms, mind-maps, idea banks, reflective journals and scrapbooks, plans of action, Gantt charts, flow diagrams, graphical organisers, and spreadsheets and databases.

6   Legislation relevant to this unit standard includes but is not limited to the:
Copyright Act 1994
Copyright (New Technologies) Amendment Act 2008
Health and Safety at Work Act 2015
Privacy Act 1993
and any subsequent amendments.
Current legislation and regulations can be accessed at http://legislation.govt.nz.

7   References
ACC5637 Guidelines for Using Computers - Preventing and managing discomfort, pain and injury. Accident Compensation Corporation - Department of Labour, 2010; available from Worksafe New Zealand, at http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/guidelines-for-using-computers.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge and concepts of digital project planning and management tools as commonly used in information technology.

Performance criteria

1.1   Project management methodologies and digital project planning tools are described in terms of suitability for a range of IT project scenarios.

        Range   methodologies include but are not limited to – waterfall and agile; includes at least three planning tools.

1.2   The steps in a project life cycle are identified and described in terms of elements.

        Range   project life cycle includes project – conception and initiation; definition and planning; launch and execution; performance monitoring and control; closure and evaluation.
Elements of a project life cycle include but are not limited to defining – what work must be done; what deliverables must be generated and reviewed; who must be involved; and how to control and approve each phase.

Outcome 2

Apply knowledge and concepts of digital project planning and management tools to contribute to project implementation, documentation and evaluation, and meet requirements of an information technology project brief.

Performance criteria

2.1   Project scope is defined in accordance with requirements of the brief.

        Range   definition of project scope includes nature of project; expected outcomes; risks; resources; inclusions and exclusions; quality standards; control processes; dependencies between tasks; time (start and finish dates, key milestones).

2.2   Project management methodologies, techniques and digital project planning tools are selected and used to create a realistic project plan to meet requirements of the brief.

        Range   plan includes but is not limited to – expected outcomes; tasks and dependencies between tasks; resources; time (start and finish dates, key milestones); inclusions and exclusions; quality standards; control processes; review points; testing;
plan is created using a digital tool.

2.3   The plan is analysed for resource conflicts and efficiency and adjusted to remedy any conflicts and maximise efficiencies.

2.4   Use digital tools to support implementation of the project.

2.5   Progress of the project is monitored using digital tools, milestones are delivered in accordance with the timeline, and the plan is adjusted as necessary to accommodate variations.

        Range   documenting change, version control, identification and management of risks.

2.6   Project documentation is complete, concise, in the required format, and sharing permissions are established for retrieval by all authorised parties.

2.7   Digital tools and methodologies used to contribute to the project implementation are evaluated in terms of their effectiveness and suitability in practice.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 January 2017	31 December 2024
Review	2	28 April 2022	31 December 2024

Consent and Moderation Requirements (CMR) reference	0113

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.