Title	Apply advanced spreadsheet features and functions to meet the requirements of a brief
Level	**4**	**Credits**	**5**

Purpose	People credited with this unit standard are able to apply advanced spreadsheet features and functions to meet the requirements of a brief. This unit standard has been developed primarily for assessment within programmes leading to the New Zealand Certificate in Computing (Advanced User) (Level 4) [Ref: 2593].

Classification	Computing > Generic Computing

Available grade	Achieved

Guidance Information

1 Recommended skills and knowledge for entry:
  Unit 29786, *Produce a spreadsheet for organisational use*, 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 either as part of the learner's employment (in the case of workplace assessment) or in response to a set task. Unformatted text and/or data files for use in the spreadsheet/workbooks may also be provided. A *brief* is defined as a clear description of both the desirable outcomes sought and the constraints to be met by the solution, and will include meeting appropriate legal (such as image copyright), ethical and moral considerations. The brief will include generic information about the target users and the specifications, including purpose, format, functions, design, testing. It must clearly identify the outcomes required from the spreadsheet, against which the success or otherwise of the outputs can be assessed.

4 At least two workbooks, each with a minimum of two worksheets; three different types of charts; one pivot table of sufficient complexity must be produced to provide scope for the assessment evidence.

5   Any proprietary or open-source spreadsheet software may be used for assessment provided it includes the features, or their equivalents, specified in the range statements.

Advanced spreadsheet features and functions may be demonstrated across all documents rather than in each, and refer to:
Advanced functions and formulas: VLOOKUP, HLOOKUP, count, countif, round functions; nested functions; joining and splitting text strings; absolute, relative, and mixed cell referencing; 3-D cell references (links between worksheets and/or workbooks); debugging using trace precedent/dependent cells, show all formulas.
Advanced efficiency techniques: assigning macros to custom toolbar button; named cells and ranges; enable and/or disable tracking changes and collaborative editing; customising templates.
Advanced formatting and editing techniques: conditional formatting; custom number formats; format data using tables; subtotals; filters; hide data (rows and columns).
Data analysis: what-if analysis, scenarios, goal seeking, consolidation.
Data validation techniques: restricting data entry to values in a drop-down list, number range, date range, text length.
Security features: adding and/or removing cell and worksheet password protection; hiding and unhiding formulas; versioning and protection, co-authored/collaborative documents.

6   Definitions
Good practice refers to selecting and using the appropriate feature or function to ensure consistent and correct use of formulas and formatting tools, such as alignment, labelling, calculation functions, and data security features to ensure data integrity and to enable correct use on the chosen digital devices and platforms.
Pivot table is a data processing tool used to query, organise and summarise selected data or information to display in different views.
Shared refers to offering access to digital information or resources for collaboration, reviewing, downloading, *a*nd/or modification.
Testing refers to the details of how the spreadsheet is going to be tested to ensure that it meets the specifications of the brief, stakeholder and good practice, including features, functions, expected output, data validation and accessibility testing.

7   Legislation relevant to this unit standard includes but is not limited to:
Copyright Act 1994
Copyright (New Technologies) Amendment Act 2008
Harmful Digital Communications Act 2015
Health and Safety at Work Act 2015
Privacy Act 2020
and any subsequent amendments.
Current legislation and regulations can be accessed at http://legislation.govt.nz.

8   Reference
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 https://www.worksafe.govt.nz/topic-and-industry/work-related-health/musculoskeletal-disorders/ergonomics/safely-using-computers-at-work/.

Outcomes and performance criteria

Outcome 1

Apply advanced spreadsheet features and functions to meet the requirements of a brief.

Performance criteria

1.1   Spreadsheets and outputs are planned to outline how the requirements of the brief will be realised and to ensure the spreadsheets, pivot tables and charts are properly and efficiently structured to meet the goals and needs of users.

      Range   plan includes at least two workbooks and formatting of a minimum of two worksheets for each workbook; three different types of charts; includes but are not limited to: layout; data input; naming; formulas; macro commands/automation; navigation; usability; data validation; security.

1.2   Features and functions are applied to spreadsheets in accordance with good practice and the requirements of the brief.

      Range   at least 10 advanced spreadsheet features and functions including – at least 4 advanced spreadsheet functions and/or formulas; at least one from each of – advanced efficiency techniques, advanced formatting and editing techniques, data analysis, data validation techniques, security features.

1.3   A pivot table is created, edited and output produced in accordance with good practice and the requirements of the brief.

      Range   includes the use of features and functions of pivot tables to prepare, format, analyse and present data in pivot tables; includes a selection of six from – sort, format, manipulate data, analyse data, update data, data from multiple tables, field lists, calculate values, pivot functions.

1.4   Data is presented accurately, clearly, and consistent with good practice when displayed in hard or soft copy and shared, and modified as needed to meet the requirements of the brief.

      Range   includes at least two workbooks and formatting a minimum of two worksheets for each workbook; three different types of charts.

1.5   The spreadsheet, pivot tables and charts are evaluated in terms of meeting the purpose and requirements of the brief, recommending possible improvements for future documents, and reflecting on impacts for own practice.

Planned review date	31 December 2026

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	N/A

Consent and Moderation Requirements (CMR) reference	0099

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

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.