

# BSBITU314 - DESIGN AND PRODUCE SPREADSHEETS

Student Name

Student USI

## LEARNER GUIDE AND WORKBOOK

## Instructions to Student:

This learner guide and workbook has been designed to create a learning experience for the unit BSBITU314 by providing information about each module, providing examples and discussions for further learning, then asking you to complete tasks which demonstrate your understanding and ability to perform duties professionally. Each task has been created to show student competency in the unit.

## Application of the unit.

This unit describes the skills and knowledge required to develop spreadsheets through the use of both cloud-based and non-cloud based spreadsheet applications.

It applies to individuals employed in a range of environments who tend to be personally responsible for designing and working with spreadsheets under minimal supervision. These individuals are generally required to have intermediate knowledge and understanding of a number of spreadsheet applications.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Unit requirements

Unit requirements are demonstrated in the introduction of each module, then in the mapping matrix at the end of this unit.

## The learning and assessment process

The Training organisation you have registered with will provide you with learning materials, including this learning guide and workbook, industry information relevant to your field of work and formal assessment tasks for you to complete. Further information may include presentations and learning resources, links to industry regulations and procedures, templates for assessment completion and examples from real world scenarios. Much of this will be relevant for referral once you have completed your studies.

A session outline will be provided by the assessor at the beginning of each module.

## RPL and assessment information:

If you feel you may be eligible for Recognised Prior Learning or Credit transfer please speak with your registered RTO PRIOR to beginning each unit of competency.

If you feel you may need learning support throughout this unit please speak with your registered RTO PRIOR to beginning each unit of competency.

If you require any special considerations to complete this unit please speak with your registered RTO PRIOR to beginning each unit of competency.

If you disagree with any feedback or assessment results provided by your assessor please be aware of the procedures required by the Registered RTO.

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## Table of contents

BSBITU314 Design and produce spreadsheets.

Module 1. Selecting and prepare resources for spreadsheets.

Module 1 Assessment task

Module 2. Planning spreadsheet design

Module 2 Assessment task

Module 3. Creating spreadsheets

Module 3 Assessment task

Module 4. Producing intermediate-level charts

Module 4 Assessment task

Module 5. Finalising and presenting spreadsheets

Module 5 Assessment task

Unit Summative Assessment task.



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**BSBITU314 DESIGN AND PRODUCE SPREADSHEETS****Unit outline**

Module 1. Selecting and prepare resources for spreadsheets.

Learning Outcome: at the end of this module the student should be able to distinguish the purpose and audience of a spreadsheet, understand spreadsheet specifications and select the application which best meets organisational resources and policies when creating a spreadsheet.

Module 2. Planning spreadsheet design.

Learning Outcome: students should ensure spreadsheet design suits purpose, and audience, meeting organisational and task requirements for style and layout using available application functions.

Module 3. Creating spreadsheets

Learning Outcome; students should be able to enter data, format spreadsheets, test and confirm output and use relevant help functions to create spreadsheets which meet task and organisational requirements.

Module 4. Producing intermediate-level charts

Learning Outcome; students can select, create and modify chart type and design for analysis of numerical data, and meets organisational and task requirements

Module 5. Finalising and presenting spreadsheets

Learning Outcome; students should be able to review, edit and deliver final spreadsheets and any accompanying charts, within designated timelines to relevant audience in accordance along with naming and storing spreadsheets to task and organisational requirements.

**Assessment Requirements:**

There are 5 “elements of competency” in this unit which describe the essential learning outcomes of a unit of competency. These include:

**Elements**

1. Selecting and preparing resources for spreadsheets
2. Planning spreadsheet design.
3. Creating spreadsheets
4. Producing intermediate-level charts

## 5. Finalising and presenting spreadsheets

The evidence of competency is evidence you can provide to demonstrate your competency in this unit. These include:

### Performance Evidence

Evidence of the ability to:

- follow correct ergonomic, conservation requirements and relevant organisational and statutory requirements
- produce spreadsheet documents that align to document purpose and appropriate to target audience
- design spreadsheets that address a range of data and organisational requirements
- use software functions, graphics and support materials to create spreadsheets that adhere to organisational requirements relating to style and presentation
- use relevant help functions to rectify intermediate-level document issues
- produce spreadsheet document in appropriate format for review, including ability to create and modify intermediate-level charts that analyse the dataset
- adhere to designated timelines and requirements for high accuracy.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

The candidate must be able to demonstrate the following knowledge to effectively complete the tasks outlined in the elements and performance criteria of this unit, and to manage tasks and reasonably foreseeable contingencies in the context of the work role.

- Key elements of intermediate-level formatting styles appropriate to workplace documents
- Key functions of spreadsheet applications, both cloud-based and non-cloud based
- Key features of organisational guidelines on spreadsheet design and use
- Key features of organisational requirements for ergonomic standards, work periods and breaks, and conservation techniques.

### Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the

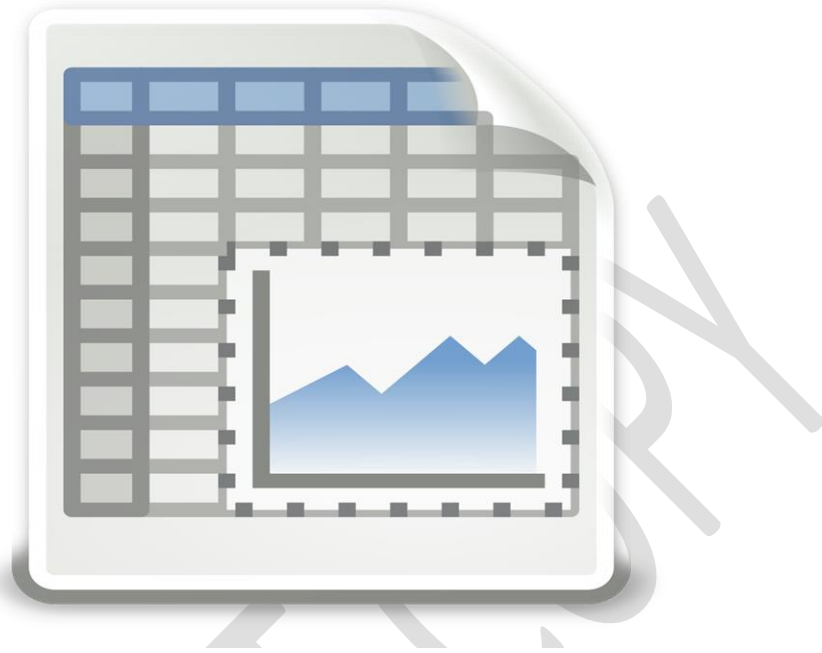
information and communications technology – IT use field of work and include access to:

- industry software/applications for producing spreadsheets
- digital device user information
- relevant legislation and codes of practice
- relevant organisational policies and procedures
- relevant workplace documentation and resources, including style guide.

Assessors of this unit must satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

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## BSBITU314 MODULE 1. SELECTING AND PREPARING RESOURCES FOR SPREADSHEETS.



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### Performance Criteria

- 1.1 Identify spreadsheet task purpose and audience
- 1.2 Identify task requirements in relation to data entry, storage, output, timeline and presentation format
- 1.3 Select most appropriate application to produce spreadsheet, in accordance with available resources and organisational policies

### Performance Evidence

1. Follow correct ergonomic, conservation requirements and relevant organisational and statutory requirements
3. Design spreadsheets that address a range of data and organisational requirements

### Knowledge Evidence

3. Key features of organisational guidelines on spreadsheet design and use
4. Key features of organisational requirements for ergonomic standards, work periods and breaks, and conservation techniques.



## BSBITU314 MODULE 1. SELECTING AND PREPARING RESOURCES FOR SPREADSHEETS.

Learning Outcome: at the end of this module the student should be able to distinguish the purpose and audience of a spreadsheet, understand the specifications of the spreadsheet and select the application which best meets organisational resources and policies.

### Session and process outline

The session follows a sequence of explain, show, do and demonstrate.

1. Introduction from assessor and session plan outline.
2. Learning activities including learner guide and powerpoint regarding preparing resources for spreadsheets.

Candidate declaration signed, Informal assessment including observed shared discussions about spreadsheets then complete worksheet and receive feedback from the assessor.

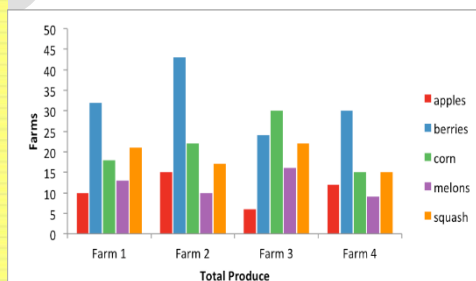
### INSTRUCTIONS TO STUDENTS;

Read the following text regarding preparing resources spreadsheets.

#### What are spreadsheets.

Have you ever seen a page or booklet made with tables, graphs or charts? Chances are, this was created using a computing software application to produce this document, known as a spreadsheet.

Common Hobbies/Activities	
Fishing	Tractor/Hyvo Stuff
Archaeology	Woodshop
Archery	Fishing
Architects	Football
Art	Writing
Art and Crafts	Yoga
Auto	
Astronomy	Golfing
Backpacking	Hiking
Band	Chess
Baseball	Knitting
Basketball	Modeling
Bird Watching	Listening to music
Bowling	Model planes/etc.
Card	Reading
Camping	Partying
Cards	Party Planning
Cars	Photography
Caving	Playing Sports
Chess	Roller
Chocolaty	Rosary
Cheer	Reading
Cleaning	Scrap Booking
Collecting	Sewing
Computer Activities	Shooting
Cooking	Singing
Dancing	Shooting
Decorating	Shooting
Design	Shooting
Derbies	Soccer
Dining Good	Studying
Drinking	Studying
Driving	Studying
Eating	Swimming
Exploring	Tennis
Family Time	Traveling
Fantasy Football	Volley Games
Fishing	Watching TV



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As of	12/31/09	12/31/19
<b>Assets</b>		
Cash/checking	0.00%	11.56%
Savings	4.76%	0.58%
Money market	0.00%	6.01%
Retirement 401k	0.00%	30.06%
Retirement IRA	0.00%	17.11%
Car	95.24%	34.68%
<b>Total Assets</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Liabilities</b>		
Car loan	51.43%	10.66%
Student loan	1009.52%	0.00%
<b>Total Liabilities</b>	<b>1060.95%</b>	<b>10.66%</b>
<b>Net worth</b>	<b>-960.95%</b>	<b>89.34%</b>

Above is an example of everyday documents which can be designed on a spreadsheet.

Spreadsheets, also known as worksheets or databases are used in a variety of settings from personal budgets to organisational records and industry financial reviews. Your blood results from a doctor may have been recorded on a spreadsheet or your weekly payslip.

It is important to know how common spreadsheets are in the workplace reflecting a need for skills in creating spreadsheets particularly, if you are in the workplace or looking to enter new employment. Skills and knowledge in spreadsheets are highly desired by employers. In this unit we will learn how to design and produce spreadsheets in various circumstances, using various applications.

### Using spreadsheets

When we are in a working environment using spreadsheets, we must consider ergonomic, work organisation and occupational health and safety requirements. This is for the protection of ourselves and the organisation. Ergonomics refers to workplace equipment design or how to arrange and design a workspace so that people and objects interact safely and resourcefully. This requires adherence to WHS standards, organisational policies pertaining to WHS and any further regulations specified by the industry you work in.

Under the 2011 Work Health and Safety (WHS) Act, workers have an obligation to:

- take reasonable care for their own health and safety
- take reasonable care for the health and safety of others
- comply with any reasonable instructions, policies and procedure given by their employer, business or controller of the workplace.

An example of ergonomic, work organisation and occupational health and safety requirements include an administration officer who works sitting at the computer for hours on end creating documents. One needs to consider that sedentary work, sitting at a desk, can be detrimental to both workers wellbeing and general health.



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A workstation will be ergonomically acceptable if the alignment of the computer screen, keyboard, person and chair are comfortable and convenient for the worker, requiring no twisting of the head or body. The chair height, seating position and breaks between

work for stretching are also important for the long term health of the administration clerk. These are ergonomic WHS practices which can be put into place for the long-term health of the employee under the WHS Act. Furthermore, the organisation will create policies, procedures and resources which are related directly to workplace safety, such as specifying break times, lighting or purchasing particular office chairs.

Spreadsheets have been found to use energy and resource conservation techniques to minimise wastage. Previously, workplace documents which required numerical input, tables and graphs used a variety of materials such as papers, writing and measuring instruments and could be time consuming for an individual to create. Newer software and cloud based applications are designed for efficiency, automatically completing and recording numerical tasks, formatting, collating data and information along with 24/7 access and sharing capabilities.

Employers find using a laptop and sharing spreadsheets online or via cloud reduces time, energy and resources in the workplace. Due to the versatility and scope of spreadsheets business professionals are using spreadsheets to perform everyday tasks in the workplace, with many relying on spreadsheet applications for decision support. As a future employee, having spreadsheet skills, even at a basic level, will help with your job prospects and increase your chances to be considered for most roles.

### **Purpose and audience of spreadsheets- producing spreadsheet documents that align to document purpose and appropriate to target audience**

There is a wide array of purposes for spreadsheet, some of which have been mentioned already. It is imperative we understand the purpose and intended audience of a spreadsheet prior to designing and producing the document as information may get lost in translation or miscommunicated, if the purpose and audience have not been distinguished.

The best way to determine the purpose of a document is to read the briefing accurately, noting important aspects such as keywords, spreadsheet specifications including application type, timeline and format.



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The primary point at this stage is to ask if you are unsure and look for the intended outcome. Most spreadsheets are used to present data or information, therefore, it is imperative you understand who will be receiving the spreadsheet information, a work colleague, client or perhaps government body, this is our target audience.

Examples of spreadsheet purpose and audience which apply to designing documentation may include a briefing to create a spreadsheet for a teacher marking student attendance, patient pathology results for a medical practitioner, or stock management in a multinational organisation. These examples of purpose and audience demonstrate how diverse and complex spreadsheets can be.

Understanding if the purpose is to persuade, inform or record information and who will be receiving the document will assist in choosing the software application, how it is received (cloud/email / personally etc) and who will be interpreting the information.

## Spreadsheet specifications

A Specification is a statement of how the spreadsheet is to meet the user or audience requirements. A specification can be as simple as explanatory text in a worksheet, or as complex as separate legal documentation. Spreadsheet specifications address a range of data and organisational design requirements relating to data entry, storage, output, timeline and presentation format whilst adhering to designated timelines and requirements for high accuracy.

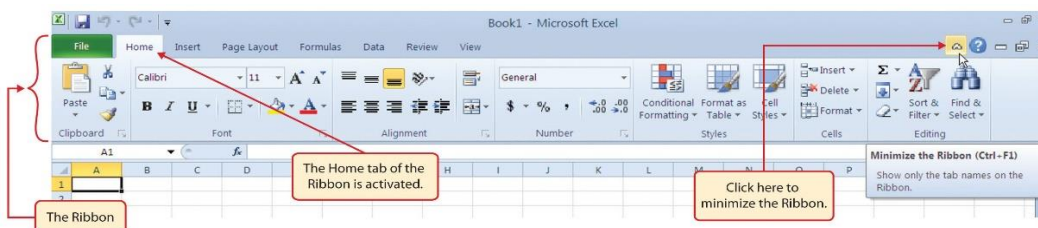
Often your organisation will state how they like data to be presented on a spreadsheet, even which application to use when creating a spreadsheet.

For example, an organisation may require formatting and design options such as:

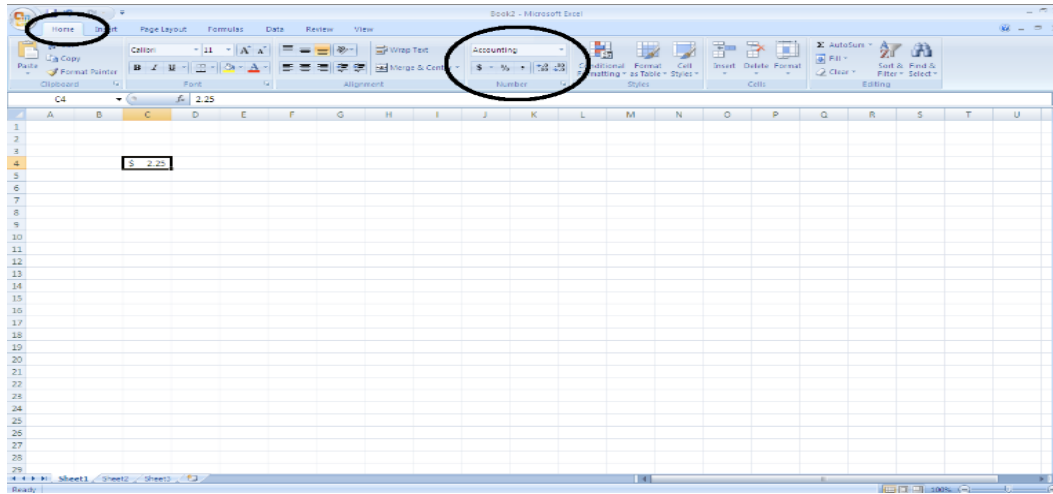
Normal text appears in a normal typeface. Worksheet names and special terms are shown in *italics*. Spreadsheet file names are shown in **boldface**. Code samples and formulas appear in *monospace text*. Menu commands and dialog text appear in *san skrit text*. The > symbol means you continue to a submenu or dialog tab, eg File > Open. The underlined letters indicate where shortcut keys may be used. software function names are in uppercase, eg ROUND, SUM

Organisational preferences for spreadsheet layouts, data entry, storage and presentation formatting may be located in the organisational policies and procedures. You could make a point of asking the manager for a copy of these or where to find them. Otherwise you may receive a briefing regarding a spreadsheet required. Remember to ask your advisor to clarify the spreadsheet specifications in the design phase so you can set your spreadsheet up accordingly, knowing the length and timeframe allocated.

Often you will be able to format the spreadsheet using the top ribbon in many spreadsheet applications as displayed below.



An example of an excel spreadsheet. The ribbon at the top of the page is where you will make most of your design changes according to your document instructions or specifications.



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For this unit we will use the common spreadsheet applications excel and google sheets. Later in this unit we will explore these applications further.

### Cloud-based and non-cloud based spreadsheet applications for spreadsheets.

Spreadsheets can be produced using software applications which are non-cloud based, like a specific workplace or data software program or cloud based, using applications like excel word or google sheets. Non- cloud based programs are specific to an organisation or workplace, often selected for privacy.

Cloud based applications are often preferred due to ease of access from anywhere using smart technology and wireless internet access. Cloud based spreadsheets will often allow for greater storage, sharing and group work. Software such as excel can be available in either cloud based or non cloud based forms. Here is a list of some popular cloud based applications which you may come across in the workplace.

#### Cloud-based spreadsheet software options

- Workday **Worksheets**. © Workday. ...
- Anaplan. © Anaplan. ...
- Sage Business **Cloud Accounting**. © Sage. ...
- Google **Sheets**. © Google. ...
- Microsoft **Excel**. © Microsoft. ...
- Apple Numbers. © Apple. ...
- Zoho Sheet. © Zoho.

In the design phase of spreadsheets employees must consider organisational policies and resources. Top level managers have selected spreadsheet applications

in accordance to organisational needs, including access, human and financial resources. Although there is a myriad of spreadsheet applications available organisational preferences to be prioritised.

Please watch the interview with Nick, an engineer who uses spreadsheets often in his workplace

Now we have covered some theory on developing spreadsheets you may complete the tasks on the following page regarding this module.

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STUDENT ASSESSMENT CHECKLIST AND DECLARATION		
DATE:		ASSESSOR:
UNIT:		ASSESSOR SIGNATURE:
STUDENT NAME	STUDENT USI	
<b>Student assessment declaration.</b> Circle Yes / No.		
I declare the unit purpose and outcome have been adequately explained to me.	Yes	No
I declare I have received information about the unit of competency and understand the assessment and evidence requirements.	Yes	No
I agree to the assessment and evidence process.	Yes	No
I have been informed of what process to take if I wish to appeal an assessment decision	Yes	No
I have informed my assessor of any special requirements which need to be considered during the assessment.	Yes	No
STUDENT SIGNATURE	DATE	
Assessor comments:		
RPL applications		
LLN support		
Special requirements		
Changes to assessment		



**Assessment Task 1.****Part 1.**

In pairs, share a ten- minute discussion about situations you have both had in the workplace which incorporated spreadsheets. You could discuss the purpose of the spreadsheet, intended audience and if it relayed the information accurately.

Your assessor will observe while you talk to your classmate and perhaps ask about your experiences.

Alternatively, if you are completing this module online or individually, create a video recording about a spreadsheet you have seen at work, its purpose and audience.

**Part 2.**

Complete the following worksheet analysing WHS ergonomic practices when creating spreadsheets over a long period of time. state the likelihood of injury from low to high.

Name:	USI		
Job title			
Job description	Administration officer for local council who produces spreadsheets daily.		
Related risks over time	Low likelihood of this occurring	Average likelihood of this occurring	High likelihood of this occurring
Headaches			yes
Eye strain			yes

*Please submit your work to the unit assessor for marking and feedback.*



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