Stanford College Australia

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**RTO No. 40514 CRICORS No. 037252B**

Lesson Plan

BSBSMB412 Introduce cloud computing

into business operations

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# Overview

BSBSMB412 Introduce cloud computing into business operations

### Duration

5 weeks Content delivery: 3 weeks

Assessment: 2 weeks

### Suggested Delivery

|  |  |
| --- | --- |
| Week 1 | Session 1: Introduction |
| Session 2: Topic 1 Review business computing needs |
| Week 2 | Session 3: Topic 2 Investigate cloud computing to meet needs |
| Session 4: Topic 2 Investigate cloud computing to meet needs |
| Week 3 | Session 5: Topic 3 Develop a plan to introduce cloud computing |
| Session 6: Topic 4 Support the implementation of the plan |
| Week 4 and Week 5 | Review and assessment |

# Resources

### Recommended texts

Introduce Cloud Computing into Business Operations, Leigh Thomas, 1st Ed, January 2018

### PowerPoint slideshows:

The following slideshows can be used to support the delivery of this lesson: BSBSMB412 slideshow.ppt.

Each topic for the unit is summarised, following the content presented in the lesson plan, with notes for the trainer/assessor where appropriate. Trainer’s can adapt the slideshow to suit his or her own teaching methods.

### Web links:

Internet links to sources of information, videos or documents are also provided throughout the lesson plan.

**If the links are broken, copy and paste them into your web browser.**

# Preparation

Before you commence delivery of these lessons, take the time to undertake the following:

* Read through this document from start to finish. If you have any queries about how an activity can best be carried out at your RTO, contact your supervisor for advice.
* Read through the recommended texts.
* Conduct further research on the Internet if any concepts are not clear for you.
* Perform each of the activities and homework or self-study that you will give the students.

Before giving each session, read through each day’s plan, as some preparation may be required.

* Sourcing videos
* Checking web links
* Preparing any technical resources required
* Planning role-plays
* Setting up activities such as presentations
* General planning

### Equipment

To carry out the Lesson Plan for this unit, the following equipment will be needed:

* Computers with appropriate software and Internet access
* Headsets
* Whiteboard
* Projector

### Industry expertise

To enhance the industry relevance of this classroom-based training approach, we recommend that you identify an industry expert or experts, and invite them in to give short presentations to students.

These industry experts are not trainers, but are people who can provide expert industry information to students to assist them with their learning. Their presentation could last up to one hour, and be provided from week 2 onwards.

# Conducting Lessons

### Lesson Context

A simulated work environment is to be used when carrying out these lessons.

Therefore, session activities:

* Reflect real life work tasks.
* Are required to be performed within industry standard timeframes as specified by assessors in relation to each task.
* Are assessed using assessment criteria that relate to the quality of work expected by the industry.
* Are performed to industry safety requirements as relevant.
* Use authentic workplace documentation.
* Require students to work with others as part of a team.
* Require students to plan and prioritise competing work tasks.
* Involve the use of standard, workplace equipment such as computers and software.
* Ensure that students are required to consider workplace constraints such as time and budgets.

### Written activities

Activities provided throughout the lesson plan can be undertaken as homework and submitted to the trainer/assessor and/or conducted within the lesson as an observed task.

### Plagiarism, cheating and collusion

Where a trainer/assessor believes there has been an incident of academic misconduct involving plagiarism, cheating, and/or collusion, they should report this along with reasons for the allegation. Assessors should refer to their RTO’s policy and procedures regarding training and assessment for further information.”

### Practical observations

* Practical observations provide opportunities for students to demonstrate both knowledge and skills.
* Observe performance from an appropriate position.
* Record appropriate comments and use for feedback purposes.

### Homework/Self-study

At the end of each session homework/self-study can be set at the discretion of the Assessor. Suggested activities are also provided.

# Induction

The following slideshow outlines the induction information provided below for this unit:

Induction.pptx. The trainer/assessor can adapt the information as relevant.

### Induction and administrative procedures

Provide your RTO’s induction and housekeeping procedures, or follow the suggested outline:

Cover any general housekeeping such as:

* trainer/assessor administration
* emergency procedures
* location of toilets and fire exits
* WHS, security
* break times
* plagiarism and any other policies and procedures that the college requires the student to acknowledge or read and agree to, such as mobile phone policies or Internet usage policies.

### Folder management and naming documents

Discuss and demonstrate where and how you would like students to save their work.

As a guide, students should keep all their work for this unit in a folder that has the unit code as its name, along with the student’s name. Any activities and assessment tasks should then be saved to this folder.

Students should name documents logically within the folder structure, it should include:

* Unit code
* Task number
* Task name
* Student last name (optional)
* The date or version number (optional)

### Back up

Students should always have a back up of their work on a different device. If the college has a network drive encourage students to use the drive and then back up to a USB or removable hard drive. If they are using a USB to save files then they should keep a back up on their laptop or home computer.

### Lesson overview

Provide the students with an overview of the unit and how it will be structured and delivered.

An outline of the suggested delivery is provided on the slide.

### Assessment

The assessment is provided in a separate document and should be made available to the students once the content has been delivered, along with the deadlines and procedures for submission.

# Session 1: Introduction

**Recommended reading**

Introduce Cloud Computing into Business Operations

Overview: The World of cloud computing p5-6

Introduction: The rise of business computing p7-26

**Slideshow**

Use the slideshow BSBSMB412 Slideshow.pptx to support the delivery of this topic.

Class discussion: Brainstorm – What is cloud computing?

CLOUD COMPUTING

### Class discussion: What is the difference between the Internet and cloud computing?

**Activity: Brainstorm - List all the resources required for cloud computing**

Hardware and software needed

for Cloud Computing

### Students may need to undertake some research in order to identify resources.

### Activity: Further reading - The history of cloud computing

<https://www.computerweekly.com/feature/A-history-of-cloud-computing>

Class activity: Diagram

Research a representative diagram of how cloud computing works. Keep this as future reference.

**Activity: Video clips explaining cloud computing**

Allocate some time for students to watch the following short video’s:

Cloud computing in 90 seconds | National Geographic

<https://www.youtube.com/watch?v=gzAhL2BmcJI>

What is “The Cloud” as Fast as Possible | Techquikie

<https://www.youtube.com/watch?v=dsKIpLKo8AE>

Cloud computing services Models – IaaS, PaaS, SaaS Explained | Ecourse Review

<https://www.youtube.com/watch?v=36zducUX16w>

What are the business benefits of cloud computing, IaaS, PaaS and SaaS?

<https://www.youtube.com/watch?v=whkyRvugqlM>

**Activity: Review Questions**

Allocate time for students to review the content from the recommended reading and answer the revision questions that follow.

Discuss the answers with the class to consolidate their learning.

### 

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

**Homework/Self-study - discussion**

Allocate some time at the beginning of the session to discuss the questions/activities or project work that students undertook as part of their self-study.

This time could also be used to review and consolidate the topic covered in the previous session and provide a time for Q&A.

# Session 2: Topic 1 Review business computing needs

**Recommended reading**

Introduce Cloud Computing into Business Operations

Chapter 1: Review business Computing needs p27-62

**Slideshow**

Use the slideshow BSBSMB412 Slideshow.pptx to support the delivery of this topic.

**Review of business computing needs**

This covers:

* determining business needs
* identifying all tasks undertaken within the organisation
* identifying any gaps in equipment or needs
* an audit of all computer hardware/equipment
* collating data on computer use
* stocktake of software and licences

**Computer resources**

This can cover:

* hardware/software and licences/warrantees/end user agreements/guarantees
* peripherals/cables/devices

**Computing needs**

This can range from:

* how software is accessed
* CRM systems
* Data storage
* Archiving
* E-commerce
* Email communication
* File mangement
* Remote access to data and services for mobile workers

**Activity: Software review**

Students can work in pairs for this activity.

For this activity you will need access to either the college computer or one that you have at home. Write a report that addresses the following:

1. State the make and model of the computer and its current hardware connections (such as Internet cabling, keyboard, printer, etc).
2. Conduct an audit of the software that the computer currently has installed. If possible, use the table on page 36 from the recommended text, ICT Audit: desktop softwre and office productivity tools, to guide your audit. `

**Activity: Hardware review**

Work in pairs for this activity.

For this activity you will need access to the college computers in either the learning centre, or a room of network computers where you can conduct a hardware audit.

Task: Conduct an audit of the hardware using the table on page 42 from the recommended text, ICT Audit: desktop hardware.

Present your response in a typed document and submit to your trainer/assessor for feedback.

**Activity: Connectivity review**

Students can work in pairs for this activity.

Use the college computers in either the learning centre, or a room of network computers where you can conduct a connectivity review. Address the following:

* List all the perhipherals in use for one computer.
* Draw a diagram that represents the LAN and WAN set up.
* Is Wi-fi available and if so how can you set this up on an external laptop?
* Find out who the ISP provider is and what data plan is implemented at the place you are researching.
* Is there remote access available for staff.
* What is the file server set up ie how many, where are they stored, what is the overall capactity ?
* How is data backed up?

Present your response in a typed document and submit to your trainer/assessor for feedback.

**Activity: E-Commerce**

Write a brief report that addresses implementing an e-commerce website for The Antique Boutique scenario on page 27 of the recommended text.

The report should address the following:

* a definition of e-commerce
* the advantages and disadvantages of introducting e-commerce to the business model
* what hardware and software would be required for implementing an e-commerce website

Present your response in a typed document and submit to your trainer/assessor for feedback.

**Activity: Module 1: Review Questions**

Recommended text: Introduce Cloud Computing into Business Operations

Chapter 1: Review business Computing needs p27-62

Allocate time for students to review the content from the recommended reading and answer the revision questions that follow.

Discuss the answers with the class to consolidate their learning.

### 

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

**Homework/Self-study - discussion**

Allocate some time at the beginning of the session to discuss the questions/activities or project work that students undertook as part of their self-study.

This time could also be used to review and consolidate the topic covered in the previous session and provide a time for Q&A.

# Session 3: Topic 2 Investigate cloud computing services to meet business needs

**Recommended reading**

Introduce Cloud Computing into Business Operations

Chapter 2: Investigate Cloud Computing to meet needs p63-98

(The topics from the text can be delivered over two sessions)

**Slideshow**

Use the slideshow BSBSMB412 Slideshow.pptx to support the delivery of this topic.

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**Fundamentals of cloud computing**

This can include:

* basics of virtualisation
* emerging trends
* opportunities and risks
* public, private and hybrid networks
* scalability
* security and privacy
* technical support

**Type of services offered**

These can include:

* IaaS (Infrastructure as a Service)
* PaaS (Platform as a Service)
* SaaS (Software as a Service)
* STaaS (Storage as a service)
* (SECaaS) Secruity as a service
* (DaaS) Data as a service
* (APIaaS) Application Programming Interfaces as a service

**Benefits can be:**

* increased efficiencies
* reduced costs and overheads
* solutions to business needs

**Risks may inlcude:**

* lack of privacy
* reduced security

**Cost-benefit analysis**

* analysis of opportunities and risks
* comparison of current costs with potential costs
* short-term and long-term costs and benefits

**Business Case**

* for example discussions with decision makers and advisors
* a documented proposal
* summary or report of financial information
* data analysis

**Fundamentals of cloud computing**

The following video clip, provides an overview of cloud computing from the very beginning:

Cloud computing tutorial for beginners | Edureka (33:45) <https://www.youtube.com/watch?v=kQnNd-DyrpA>

Class discussion: Does anyone know why cloud computing is called cloud computing??

**Activity: Further reading - An overview of cloud terminology**

<http://whatiscloud.com/basic_concepts_and_terminology/cloud>

**Activity: Cloud services**

List down the cloud services that are available for one cloud service provider, along with some general costs.

For each service provide a brief explanation of what each entails.

Type your responses in a document and save for future reference.

**Risks of cloud computing**

Here are some of the top risks of implementing cloud services for a business:

1. Unauthorised access to customer and business data
2. Security risks at the vendor (ie security of vender, access rights, personnel risks)
3. Compliance and legal risks
4. Lack of control over the service
5. Availability risks (ie downtime)

**What is a risk?**

* breach of data
* costs of resolving a breach
* legal expenses and company reputation
* availability of the cloud service
* any outages that occur can lead to massive disruption

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

**Homework/Self-study - discussion**

Allocate some time at the beginning of the session to discuss the questions/activities or project work that students undertook as part of their self-study.

This time could also be used to review and consolidate the topic covered in the previous session and provide a time for Q&A.

# Session 4: Topic 2 Investigate cloud computing services to meet business needs

**Recommended reading**

Introduce Cloud Computing into Business Operations

Chapter 2: Investigate Cloud Computing to meet needs p63-98

### Activity: Cloud services – Report

Consider The Antique Boutique scenario on page 27 of the recommended text.

Assume that you have been given the task of researching and recommending a business case for implementing cloud computing services for the business.

You will need to undertake the following:

* A comparison of two cloud service providers, the services they offer, pricing and how each service will benefit the business. You should contact at least one specialist advisor to determine the relevant services needed.
* A basic cost-benefit analysis for the introduction of an appropriate cloud computing service for the business.
* List all the opportunities and risks involved in implementing the suggested service
* Recommend one appropriate service with justifiable reasons of your choice.

This should be presented in a report format that can be delivered to senior management, such as a proposal. Email this to your trainer/assessor asking for approval of the proposal.

**Activity: Module 2: Review Questions**

Recommended text: Introduce Cloud Computing into Business Operations

Chapter 2: Investigate Cloud Computing to meet needs p63-98

Allocate time for students to review the content from the recommended reading and answer the revision questions that follow.

Discuss the answers with the class to consolidate their learning.

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

**Homework/Self-study - discussion**

Allocate some time at the beginning of the session to discuss the questions/activities or project work that students undertook as part of their self-study.

This time could also be used to review and consolidate the topic covered in the previous session and provide a time for Q&A.

# Session 5: Topic 3 Develop a plan to introduce cloud computing

**Recommended reading**

Introduce Cloud Computing into Business Operations

Chapter 3 Develop a plan to introduce cloud computing p99-109

**Slideshow**

Use the slideshow BSBSMB412 Slideshow.pptx to support the delivery of this topic.

**Case study: A guide to implementing cloud services**

Discuss the guide, published by the Australian Government which covers the identification of cloud opportunites, implementing a solution and reviewing the implementation.

<https://www.finance.gov.au/files/2012/09/a-guide-to-implementing-cloud-services.pdf>

Also the Queensland Government have published a Cloud Computing Implementation Model:

<https://www.qgcio.qld.gov.au/__data/assets/pdf_file/0021/5763/170280-cc-model-v1.pdf>

**Planning for cloud services**

Every organisation will have its own strategy for implementing cloud services. The following are just some of the steps that should be considered when integrating cloud computing:

* technical planning including existing systems, networks and technologies
* performance, reliability, availablity and disaster recovery for identifying key issues for ciritcal applications.
* Security risk assessment and planning to reduce threat and vulnerability of sensitive information and data.
* Service level agreements covering performance, reliability, disaster recovery and cloud sercurity.
* Compliance and due diligence
* Testing and monitoring
* Evaluation of systems
* Operations and management of exisiting business processes.

Class discussion: Short term and long term goals

Consider The Antique Boutique scenario on page 27. What would be there short term and long term goals for the introduction of cloud computing?

### Activity: Preparing a budget

Consider The Antique Boutique scenario on page 27 of the recommended text and the cloud service you recommended in the earlier activity.

Using the table Prepare a budget: Set up costs and Prepare a budget: on-going costs on page 104, prepare a budget that takes into consideration the Budget items listed.

**Activity: Define the project steps – create a plan**

Using the information provided in the recommended text, along with your own research, create a plan that could be used to introduce the recommended cloud service for The Antique Boutique. Ensure that there are clear milestones. Create a Gantt chart or similar overview of the implementation plan to show the activities and steps required to carry out the implementation.

**Activity: Module 3: Review Questions**

Recommended text: Introduce Cloud Computing into Business Operations

Chapter 3 Develop a plan to introduce cloud computing p99-109

Allocate time for students to review the content from the recommended reading and answer the revision questions that follow.

Discuss the answers with the class to consolidate their learning.

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

**Homework/Self-study - discussion**

Allocate some time at the beginning of the session to discuss the questions/activities or project work that students undertook as part of their self-study.

This time could also be used to review and consolidate the topic covered in the previous session and provide a time for Q&A.

# Session 6: Topic 4 Support the implementation of the plan

**Recommended reading**

Introduce Cloud Computing into Business Operations

Chapter 4 Support the implementation of the plan p 113-120

**Slideshow**

Use the slideshow BSBSMB412 Slideshow.pptx to support the delivery of this topic.

**Activity: Further reading Why IT projects still fail**

Read through the following article:

<https://www.cio.com.au/article/625522/why-it-projects-still-fail/>

**Activity: Report - Why IT systems fail**

Using the information from the chapter Review Busines Computing Needs, along with research from the Internet, and the article on Why IT Projects still fail, write a report that provides an overview of why Information Technology systems can fail. You should address the following:

1. The importance of reviewing the needs of the business
2. Why conducting an ICT audit of critical systems would benefit success of a system
3. The support of management to avoid failure
4. The support of personnel to avoid failure

Relate your responses to the introduction of cloud computing systems to an organisation of your choice or the scenario The Antique Boutique presented in the recommended text. You may also cite real-life examples that you have researched.

**Activity: Presentation**

Using the information researched and documented from the previous activities, create a presentation that could be given to management to promote the key features of the cloud services being implemented.

In the presentation address the following:

* + A brief overview of the cloud service and how it integrates within the business infrastructure
  + Why the service has been chosen
  + The benefits of using the service
  + How it will be implemented

**Training and coaching staff**

* Security measures
* Best practices
* Using the systems to keep data secure
* Benefits of the new system

Some employees may be resistant to training if this incurs changes in their current workflow.

Different training methods should be deployed and the approach should use different mediums such as workshops, videos, document guides, emails, self-help guides, tutorials, one-on-one coaching.

Training should be hands-on and be a ongoing process.

**Activity: Further reading - Are your employees ready for the cloud?**

<https://www.simplilearn.com/employees-ready-for-the-cloud-article>

**Activity: Training plan**

Assume that you will be implementing the cloud service recommended for The Australian Boutique and you are required to create a training plan for staff in how to use the service and best practices.

Create a training plan that will provide foundation skills and also encourage employees to use the services efficiently.

Provide at least three different options for ongoing training for staff, these could be workshops, coaching, mentoring, one-on-one or external courses.

Present your training plan in a professionally typed and presented document and submit to your trainer/assessor for feedback.

**Activity: Module 4: Review Questions**

Recommended text: Introduce Cloud Computing into Business Operations

Chapter 4 Support the implementation of the plan p 113-120

Allocate time for students to review the content from the recommended reading and answer the revision questions that follow.

Discuss the answers with the class to consolidate their learning.

**Homework/Self-study**

Students should complete any outstanding reading or activities from the session.

Responses should be typed and professionally presented in a word-processed document.

Allocate time at the beginning of the next session to discuss student’s responses.

# Review and Assessment

The content of this unit has now been covered.

### Review and completion

Allocate time for students to complete any outstanding activities, reading, role-plays, meetings, presentations or further tasks that require observation or submission to the trainer/assessor.

The trainer/assessor should allow time to review any topics or activities undertaken by students to consolidate their learning.

### Discuss the Assessment Tasks

Take time to discuss each task in detail if required, and ensure that the students understand the assessment procedures, submission instructions and deadlines.

Students should use these sessions to work on their assessment tasks, with support from the trainer/assessor.

### Support

The trainer/assessor should provide as much support as is appropriate for students whilst they undertake their assessment tasks. The trainer/assessor may have to timetable meetings or role-play’s that require observation for assessment so it is important to ensure that this has been considered into the lesson planning.

### Housekeeping

Provide some time at the end of the last session for housekeeping such as administrational duties, student feedback and farewells.