SUCCESSION TRAINING

BSB51415 Diploma of Project Management

The Project Life Cycle

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Learner Guide 1

Version control & document history

Date	Summary of modifications made	Version
14 April 2016	Version 1 final produced following validation.	1.0
22 June 2017	Minor wording updates	1.1
5 October 2017	Updates made under 'This learner guide covers' section	1.2
16 October 2018	Change to Practical Assessment	1.21

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LEARNER GUIDE

Unit Description:

BSBPMG521 – Manage project integration

This unit describes the skills and knowledge required to integrate and balance overall project management functions of scope, time, cost, quality, human resources, communication, risk and procurement across the project life cycle; and to align and track project objectives to comply with organisational goals, strategies and objectives.

It applies to individuals responsible for managing and leading a project in an organisation, business, or as a consultant.

BSBPMG516 – Manage project information and communication

This unit describes the skills and knowledge required to link people, ideas and information at all stages in the project lifecycle. Project communication management ensures timely and appropriate generation, collection, dissemination, storage and disposal of project information through formal structures and processes.

It applies to individuals responsible for managing and leading a project in an organisation, business, or as a consultant.

For complete copies of the above unit of competency:
Download them from the TGA website: www.training.gov.au

About this unit of study introduction

As a worker, a trainee, or a future worker you want to enjoy your work and become known as a valuable team member. This unit of competency will help you acquire the knowledge and skills to work effectively as an individual and in groups. It will give you the basis to contribute to the goals of the organisation which employs you.

It is essential that you begin your training by becoming familiar with the industry standards to which organisations must conform.

These units of competency introduce you to some of the key issues and responsibilities of workers and organisations in this area. The unit also provides you with opportunities to develop the competencies necessary for employees to operate as team members.

This learner guide covers

Managing project integration

1. Establish project
2. Undertake project planning and design processes
3. Execute the project in work environment
4. Manage project control
5. Manage project finalisation

Manage project information and communication

1. Plan information and communication processes
2. Implement project information and communication processes
3. Assess information and communication outcomes

Learning program

As you progress through this unit of study, you will develop skills in locating and understanding an organisation's policies and procedures. You will build up a sound knowledge of the industry standards within which organisations must operate. You will become more aware of the effect that your own skills in dealing with people has on your success or otherwise in the workplace. Knowledge of your skills and capabilities will help you make informed choices about your further study and career options.

Additional learning support

To obtain the additional support, you may:

- Search for other resources. You may find books, journals, videos and other materials which provide additional information about topics in this unit.
- Search for other resources in your local library. Most libraries keep information about government departments and other organisations, services and programs. The librarian should be able to help you locate such resources.
- Contact information services such as Infolink, Equal Opportunity Commission, Commissioner of Workplace Agreements, Union organisations, and public relations and information services provided by various government departments. Many of these services are listed in the telephone directory.
- Contact your facilitator.

Facilitation

Your training organisation will provide you with a facilitator. Your facilitator will play an active role in supporting your learning. Your facilitator will help you anytime during working hours to assist with:

- How and when to make contact,
- What you need to do to complete this unit of study, and
- What support will be provided?

Here are some of the things your facilitator may do to make your study easier:

- Give you a clear visual timetable of events for the semester or term in which you are enrolled, including any deadlines for assessments.
- Provide you with online webinar times and availability.
- Use 'action sheets' to remind you about tasks you need to complete, and updates on websites.
- Make themselves available by telephone for support discussion and provide you with industry updates by e-mail where applicable.
- Keep in touch with you during your studies.

Flexible learning

Studying to become a competent worker is an interesting and exciting thing to do. You will learn about current issues in this area. You will establish relationships with other students, fellow workers, and clients. You will learn about your own ideas, attitudes, and values. You will also have fun. (Most of the time!)

At other times, studying can seem overwhelming and impossibly demanding, particularly when you have an assignment to do and you aren't sure how to tackle it... and your family and friends want you to spend time with them... and a movie you want to see is on television...

Sometimes being a student can be hard.

Here are some ideas to help you through the hard times. To study effectively, you need space, resources, and time.

Space

Try to set up a place at home or at work where:

1. You can keep your study materials,
2. You can be reasonably quiet and free from interruptions, and
3. You can be reasonably comfortable, with good lighting, seating, and a flat surface for writing.

If it is impossible for you to set up a study space, perhaps you could use your local library. You will not be able to store your study materials there, but you will have quiet, a desk and chair, and easy access to the other facilities.

Study resources

The most basic resources you will need are:

1. A chair
2. A desk or table
3. A computer with internet access
4. A reading lamp or good light
5. A folder or file to keep your notes and study materials together
6. Materials to record information (pen and paper or notebooks, or a computer and printer)
7. Reference materials, including a dictionary

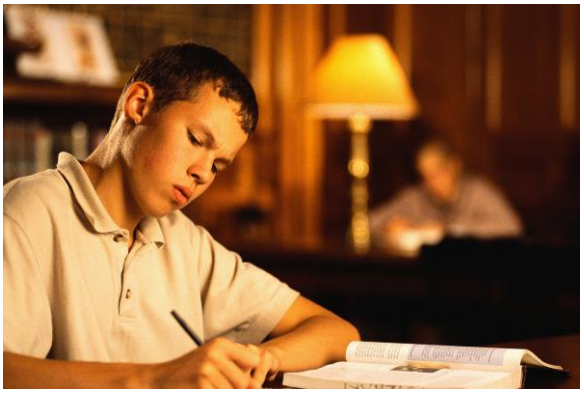
Do not forget that other people can be valuable study resources. Your fellow workers, work supervisor, other students, your flexible learning facilitator, your local librarian, and workers in this area can also help you.

Time

It is important to plan your study time. Work out a time that suits you and plan around it. Most people find that studying, in short, concentrated blocks of time (an hour or two) at regular intervals (daily, every second day, once a week) is more effective than trying to cram a lot of learning into a whole day. You need time to 'digest' the information in one section before you move on to the next, and everyone needs regular breaks from study to avoid overload. Be realistic in allocating time for study. Look at what is required for the unit and look at your other commitments.

Make up a study timetable and stick to it. Build in 'deadlines' and set yourself goals for completing study tasks. Allow time for reading and completing activities. Remember that it is the quality of the time you spend studying rather than the quantity that is important.

Study strategies



Different people have different learning 'styles'. Some people learn best by listening or repeating things out loud. Some learn best by 'doing', some by reading and making notes. Assess your own learning style, and try to identify any barriers to learning which might affect you. Are you easily distracted? Are you afraid you will fail? Are you taking study too seriously? Not seriously enough? Do you have supportive friends and family? Here are some ideas for effective study strategies:

Make notes. This often helps you to remember new or unfamiliar information. Do not worry about spelling or neatness, as long as you can read your own notes. Keep your notes with the rest of your study materials and add to them as you go. Use pictures and diagrams if this helps.

Underline key words when you are reading the materials in this learner guide. (Do not underline things in other people's books.) This also helps you to remember important points.

Talk to other people (fellow workers, fellow students, friends, family, or your facilitator) about what you are learning. As well as helping you to clarify and understand new ideas, talking also gives you a chance to find out extra information and to get fresh ideas and different points of view.

Using this learner guide

A learner guide is just that, a guide to help you learn. A learner guide is not a textbook. Your learner guide will:

1. Describe the skills you need to demonstrate to achieve competency for this unit;
2. Provide information and knowledge to help you develop your skills;
3. Provide you with structured learning activities to help you absorb knowledge and information and practice your skills;
4. Direct you to other sources of additional knowledge and information about topics for this unit.

How to get the most out of your learner guide

Read through the information in the learner guide carefully. Make sure you understand the material.

Some sections are quite long and cover complex ideas and information. If you come across anything you do not understand:

1. Talk to your facilitator;
2. Research the area using the books and materials listed under Resources;
3. Discuss the issue with other people (your workplace supervisor, fellow workers, fellow students);
4. Try to relate the information presented in this learner guide to your own experience and to what you already know.
5. Ask yourself questions as you go. For example 'Have I seen this happening anywhere?' 'Could this apply to me?' 'What if....'. This will help you to 'make sense' of new material and to build on your existing knowledge.
6. Talk to people about your study.
7. Talking is a great way to reinforce what you are learning.
8. Make notes.
9. Work through the activities.

Even if you are tempted to skip some activities, do them anyway. They are there for a reason, and even if you already have the knowledge or skills relating to a particular activity, doing them will help to reinforce what you already know. If you do not understand an activity, think carefully about the way the questions or instructions are phrased. Read the section again to see if you can make sense of it. If you are still confused, contact your facilitator or discuss the activity with other students, fellow workers or with your workplace supervisor.

Additional research, reading, and note-taking

If you are using the additional references and resources suggested in the learner guide to take your knowledge a step further, there are a few simple things to keep in mind to make this kind of research easier.

Always make a note of the author's name, the title of the book or article, the edition, when it was published, where it was published, and the name of the publisher. This includes online articles. If you are taking notes about specific ideas or information, you will need to put the page number as well. This is called the reference information. You will need this for some assessment tasks, and it will help you to find the book again if you need to.

Keep your notes short and to the point. Relate your notes to the material in your learner guide. Put things into your own words. This will give you a better understanding of the material.

Start off with a question you want answered when you are exploring additional resource materials. This will structure your reading and save you time.

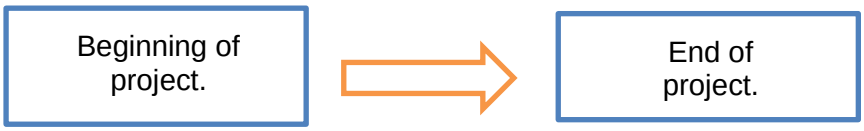
INTRODUCTION TO PROJECT MANAGEMENT

Before commencing this section, please read chapters 1-3 of the *PMBOK Guide*.

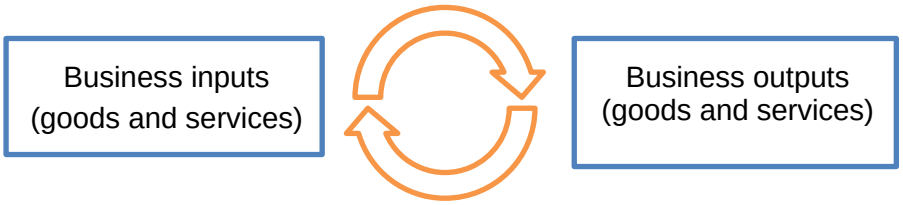
1.1 What is Project Management?

What is a project?

Put simply, a project is any piece of work that has a beginning and an end.



This is opposed to a business operation which is continuous in nature.

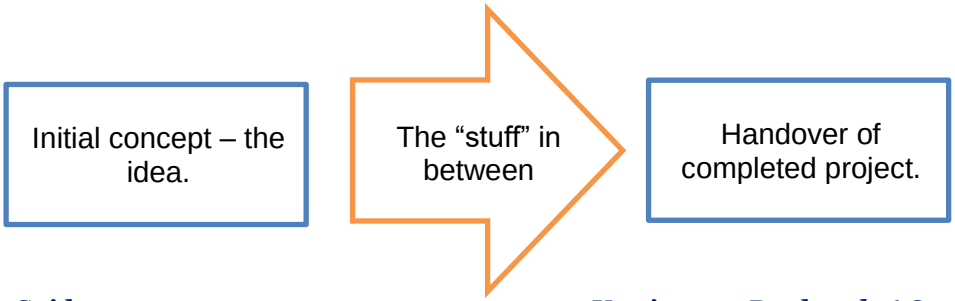


The following can be itemised as projects as they have a beginning and an end:

- Construction of a bridge.
- Development of a new piece of software.
- Organising and running a large sporting function.

Chances are you will have managed projects to some capacity in the past.

Project management is the process of moving a project from beginning to end, right from the initial concept/idea, handing over the project, and managing all the "stuff" that happens in between. This course covers all that "stuff" in between.



1.2 Chances are you have already managed projects

You may be saying “I have never managed a project before. This is all new to me.”

Have you ever been assigned a small one-off piece of work where you were responsible for the creation of some product or service? Did this piece of work have a start and a finish? Were you required to deliver a finished product at the end of this piece of work? Were you given responsibility for delivering it?

Looking at the above definition of a project, if you have answered yes to these questions, then you have already managed projects.

That being said, you are no doubt doing this course because you have identified gaps in your skills as a project manager, or wanting to gain new skills (or at least a qualification) to broaden your future opportunities in the amazing world of project management.

You will no doubt find a lot of the concepts in the course already familiar to you. This course is therefore designed to put all that information together for you into a cohesive package that will allow you to consider all aspects of project management when you are planning and delivering projects. In other words, this course will give you a good all round grounding to equip you for successfully delivering projects.

Activity 1:

Briefly describe one project you have already managed. This may either be a project you have formally managed in a workplace, or a small project you have been involved with in your workplace, a community organisation or even at home.

I think I'll just PDF this as is and submit! :-)

1.3 The Ten Functions of Project Management

Throughout the course, we will be referring to what is known in the industry as the "ten" functions of project management.

The PMBOK (Project Management Body of Knowledge) covers these ten functions very well (note if you are referring to an old version of the PMBOK, this will only cover nine functions):

1. **Integration** - The overall coordination of a project. This covers the project life cycle, managing the project documentation and coordinating the other eight functions of project management.

2. **Scope** – The work, and the end product, of a project. This covers what the project will produce.

3. **Time** – The duration of a project. This covers the timeframes for the overall project, the timeframes of the key milestones and the times of the individual tasks in the project.

4. **Cost** – The expenses required to deliver the project. This covers the project budget, how much each task will cost, whether the costs are raw material or equipment purchases, labour or procurement. It also covers the overall cash flow of the project.

5. **Quality** – The standard of work required for the processes and the end product of the project. This covers quality planning, quality control and quality assurance processes.

6. **Human Resources** – The people involved in delivering the project. This covers the organisation structure, the hiring of people into the project and the management and monitoring of project staff members.

7. **Communication** – The flow of project information between the different stakeholders. This covers formal reporting processes to project stakeholders and the informal communication processes between the project manager and project team members and contractors.

8. **Risk** – What can go wrong in a project, and how to manage it. This covers planning and prioritising risk, and managing risks that become project incidents.

9. **Procurement** – Contracts and purchasing. This covers the recruitment of contractors or suppliers, contract management and contract closure.

10. **Stakeholders** – The people and organisations affected by the projects. This covers regulators, owner/sponsors of the project, management of the project organisation, end users, etc.

If all ten functions are carefully considered during the planning and delivery of your project, then the project will have a high likelihood of success. It would be advantageous for you to commit these to memory.

1.4 What Makes a Good Project Manager?

There is much discussion in project management circles as to whether a project manager should be a technical expert in their field. There are two schools of thought to this:

The technical expert project manager:

- Many people become project managers because they are an expert in their technical field and project management is a logical progression from their technical role.

- The strength of these project managers is they are able to make practical solutions when they encounter a snag in the project. A contractor is falling behind on their work. New equipment is needed, etc. The project manager with the technical background is able to quickly make an informed decision based on their own experience in order to get the project back on track.

- On the flip side, the project manager with a strong technical background would often come into a project management role not understanding the documentation processes (project plans, financial due diligence, etc.) and would often be completely unfamiliar with stakeholder management or contract management processes.

- A project manager in this situation would be able to overcome this weakness through having a strong project administrator with excellent attention to detail. The administrator will be able to do all the "paperwork" leaving the project manager free to manage the technical and practical aspects of the project.

The project management expert:

- Other people become project managers by studying project management and work their way up through project administration roles to eventually take on a project management role.

- These project managers are very strong with the documentation side of project management. They are very good with the due diligence, project planning, and contract management processes. They have often been promoted due to their strong abilities in stakeholder management.

- The downside of these project managers is they often do not have the technical skills to make practical decisions in the planning of the project, nor are they able to make quick decisions when a technical issue arises.

- Such a project manager can overcome this through building close working relationships with the technical experts of the project, and by building the trust enough to be able to obtain the technical advice to make the decisions where needed. The project manager should engage these experts at the planning stage of the project to obtain reasonable cost and time estimates.

What this course will do for you is to provide you with the skills and knowledge of project management methodology whatever your background. If you are a technical expert, then you will definitely benefit from learning about the project management methodology that would currently be unfamiliar to you. If you come from a project administration background, then this course will definitely fill the gaps and increase your knowledge of the administrative aspects of the project to the full management.

The one thing this course will not do is provide you with any technical knowledge in your own field. Students completing this course come from all kinds of technical background. You may be from a construction background, a government administration background, a mining background, or a horticultural background. These are all very different fields, yet the methodology used in managing projects is the same.

The case studies and scenarios used throughout this course are generic enough for all students to be able to reasonably understand. The author has deliberately focused on the project management methodology rather than the technical aspects of the projects. With that in mind, if you do find yourself working in an industry covered by one or more of the case studies, you will find the technical coverage to be weak, but that is deliberate.

So now we understand the potential background of most new project managers, the next step is to discuss more detail on what is a project manager…

In short, the project manager is the person responsible for delivering the project from start to finish. They are required to manage all stakeholder to ensure it is delivered to scope, time, cost and quality requirements.

The project manager is essentially the guru of the project. They are the one person who should know the project inside out to be able to make the decisions needed to carry it forward.

In an ideal world, a project will be nicely planned, and it will all go smoothly without a hitch. Everyone will do what they are supposed to do, and everything will fall into place nicely.

If that were the case, there would actually be no need for a project manager.

In the real world, things will go wrong, people won't deliver what they are supposed to deliver, costs of raw materials change, the project sponsor will change their mind mid-project. The project manager is required to be across the project so well that they will know what to do whenever a situation presents itself. The project management position can often be stressful with these situations.

The difference between an effective project manager and an ineffective one is their ability to work through the challenging situations.

Therefore it is very important that no matter whether you are a “technical expert” project manager or a “project management expert” project manager, you must be across EVERY ASPECT of your project. Doing so is essential because:

- It ensures the project is delivered as per the project plan and sponsor’s requirements.
- It ensures organisation policies and procedures are followed in the delivery of the project.
- The project manager must be able to predict the impact of requested and actual changes in all aspects of a project.

...and last but not least...

- The project manager is the one person considered to be the central point of ALL information in the project. Any stakeholder wanting to find out about anything about the project will inevitably go straight to the project manager.

Activity 2:

Reflect on the project you managed in activity 1. List what you believe you did well in managing the project, and list a few things that you would have liked to have done better.

Activity 3:

Based on your review in activity 2, write down what you would like to achieve by the end of this course. Consider:

- The areas of project management that you feel you don't know anything about.
- The areas of project management you would like to learn more about.
- Some mistakes you have made in the past that you have been unable to solve, and hoping to find some solutions through this course.
- Skills that you would like to master in this course.

We will revisit this activity towards the end of the course.

1.5 Roles and Responsibilities of a Project Manager

Now that we have had a broad overview of what makes a good project manager let's have a closer look at the roles and responsibilities of the typical project manager.

To break it up, a typical project manager is responsible for all ten of the project management functions:

Each of these responsibilities will be covered in a lot more detail throughout the course, but the following provides a summary of the project manager's responsibilities:

1. **Integration**
   - Developing the project plan.
   - Integrating all functions of project management.
   - Managing the change management process.
   - Managing project conflict.
   - Closing the project once complete.

2. **Scope**
   - Managing the scope of the project.

3. **Time**
   - Managing the timeframes of the project.
   - Managing the sequencing of tasks.
   - Ensuring deadlines are met.

4. **Cost**
   - Managing the project budget.

5. **Quality**
   - Managing the project quality.
   - Managing the quality assurance and quality control processes.

6. **Human Resources**
   - Recruiting for the project.
   - Managing the project team.

7. **Communication**
   - Reporting to the project sponsor and senior management.
   - Communicating task and quality requirements to the project team members.
   - Communicating task and quality requirements to external contractors.

8. **Risk**
    - Managing the project risk.

9. **Procurement**
    - Managing the project contracts.

10. **Stakeholders**
    - Managing the project stakeholders.

Project managers in specific industries may have additional responsibilities, as will employees who manage projects on a part-time basis only.

The reporting requirements for a project manager are likely to vary depending on the type of organisation you work for, and where you fit in the organisation. Consider the following scenarios:

1. You are the owner of a small development company where you are the manager, and you have three developers working for you. A large part of your role will involve project management, but you will be reporting directly to your clients.

2. You work in a slightly larger business where you report directly to the business owner as the manager of development or construction. Your role is effectively that of a full-time project manager where you will have all the direct responsibilities of a project manager, but you will have a senior manager to report to as well as the clients.

3. You have an operational position in a large corporation, but you have been temporarily released from your normal role to manage an internal project. Your project team is made up of other members of the organisation, and you are reporting to one of the middle managers of the corporation who is acting as the project sponsor.

4. You work as a sole contractor without any team members. A client has approached you to develop a new product for them over the next three years. You are not only taking on the role of developer, but you find you are managing the project as well.

5. You are leaving the corporate world and setting out on your own as a sole trader. You are developing your own business plan and have a three-year goal of building a business as a home builder. This will require you to not only manage the growth of your own business but to also manage the projects that your business will become responsible for.

6. You are a contractor brought in by a large government department to manage the planning and development of a national database. You will be reporting to a steering committee made up of senior managers from each of the Federal and State and Territory government departments.

7. You are the project manager overseeing a large project. You have a number of supervisors who report to you, and the project team members report to the supervisors. You report to the program manager of the company you work for, and there are another three levels up to the CEO. Your clients are very large corporations and government departments.

These scenarios are all very different, particularly in relation to the reporting structure, but in all cases, the responsibilities will be very similar.

With this in mind, the course has been written to provide you with an excellent overview of project management methodology regardless of which of the above scenarios you fit best into.

Activity 4:

If you are currently working as a project manager, find your job description (if you have one). Do all the responsibilities listed above appear in your job description? If not, should others be added? If you do not have a job description, write one including relevant responsibilities from the above list.

If you are not working as a project manager at the moment, imagine the industry you could work in as a project manager. Write yourself a job description, listing all the responsibilities you would expect to have as a project manager in that industry.

1.6 Project Methodologies

The PMBOK (Project Management Body of kKnowledge) is just one of a number of different methodologies of project management.

A project methodology is a guidance system for managing a project.

This course will focus on the PMBOK methodology as it is very thorough in covering the ten functions, particularly for large projects. PMBOK may be used for smaller projects as well, but usually in a cut-down format. However, you should at least be aware of other project management methodologies, particularly if you are working in an organisation that uses one.

All other project management methodologies can be integrated into the PMBOK, so even if you work for an organisation that uses a different methodology, this course will contain the essential information and skills essential that can be applied to any methodology.

Activity 5:

Research the different project management methodologies by clicking on the website links into Wikipedia. Read the advantages and disadvantages of each methodology.

Agile Project Management (An iterative methodology commonly used in the IT industry where the full scope of the project is not apparent at the start of the project)

http://en.wikipedia.org/wiki/Agile_Project_Management

Critical Chain Project Management
http://en.wikipedia.org/wiki/Critical_chain_project_management

Event Chain Methodology
http://en.wikipedia.org/wiki/Event_chain_methodology

Extreme Project Management
http://en.wikipedia.org/wiki/Extreme_project_management

Lean Project Management
http://en.wikipedia.org/wiki/Lean_project_management

PRINCE2 (Methodology for large projects developed in the UK, and commonly used by Australian government departments more than in the private sector).
http://en.wikipedia.org/wiki/PRINCE2

Process-Based Management - http://en.wikipedia.org/wiki/Process-based_management

Waterfall - http://en.wikipedia.org/wiki/Waterfall_model

Activity 6:

If you are currently working for an organisation, find out which project management methodology (if any) they are currently using.

If you are not working, what would you consider to be the most appropriate methodology(s) an organisation you could work for should use?

1.7 Glossary of Project Management Terms

The following lists the terms that you are likely to encounter in your work in project management. You should take the time to learn as many of these as possible, as they will appear throughout the course, and you will definitely encounter them in your workplace.

Terms that you will need to have a working understanding of will all be covered in your course material.

Wikipedia has a project management glossary to get you started.

http://en.wikipedia.org/wiki/Glossary_of_project_management

There is a more detailed glossary in the PMBOK Guide from page 157.

Activity 7:

Create a separate Word document to populate with terms that you come across throughout the course and (if you are working) in your workplace.

We could create a glossary for you, but as part of the learning process, you should develop your own glossary of project management terms from scratch.

When you come across a new term, do some research to find out its definition, and how you can apply it. Add the term and the definition to your glossary. By the end of the course, you should have a comprehensive glossary of terms.

THE PROJECT LIFE CYCLE

2.1 The Five Stages of the Project Life Cycle

Earlier we discussed that a project has a beginning and an end. Project management covers the entire process from start to finish, along with all the "stuff" in between.

Here we look at the specific process that makes up the "stuff in between". This is known as the project life cycle.

In order for a project to run smoothly, all ten functions of project management need to be carefully managed at each stage of the project lifecycle. Remember the five stages are:

1. **Scoping**
   Starting the project, conceptually working out the high-level details of the project and documenting a business case.

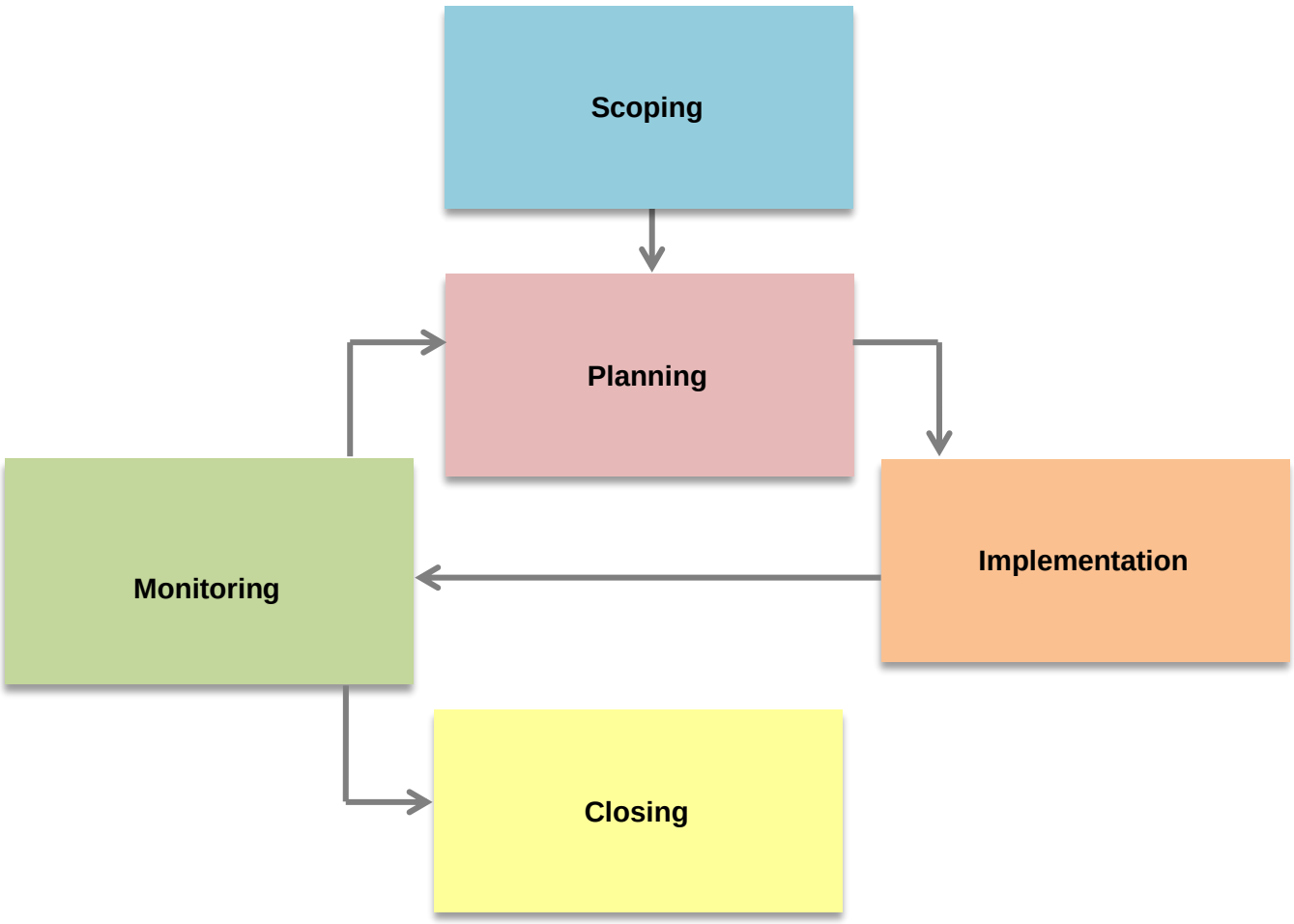
2. **Planning**
   Working out the details of the project to determine overall timeframes, costs, scope and quality requirements, and how the project will be resourced.

3. **Implementation**
   Putting the project plan into action by executing the project tasks and producing the project deliverables.

4. **Monitoring**
   Evaluating and controlling the project.

5. **Closing**
   Winding down the project by handing over the deliverables, releasing staff and completing reviews and archiving activities.

Graphically, this can be represented in the following flowchart:



Many projects have a tendency to only have an execution stage, but the other four stages of the project life cycle are essential for the success of the project. Careful initiation and planning are needed before the project commences. During the execution stage, unexpected issues are likely to arise, hence the monitoring and control which feeds back into the planning. Finally, when a project is complete, there is a final process in the closing stage to ensure everything is finished.

The following five sections look at each stage in more detail.

2.2 Scoping

A project is formally started, named and defined at a broad level during this phase. Project sponsors and other important stakeholders perform their due diligence on whether or not to undertake a project or choose to undertake one project over another. Depending on the nature of the project, feasibility studies may be conducted, as required.

During the scoping process, the project manager needs to get a high-level overview of what the project sponsor or client requires. Normally the client is approaching a senior manager or a business development manager, so the project manager is often not involved in the initial process.

At this stage, the project sponsor or client has a good idea of what they want (they may even have a specification), and will have some idea on their budget and timeframes.

This information is usually relayed to the project manager or a program manager to start the project planning. In large organisations, the first a project manager would hear of a project could be when they are handed the completed project charter. At the other end of the spectrum, if the project manager is also the business owner, they will most likely fully participate throughout the scoping process.

One of the aims of the scoping process is to determine whether the project management organisation is able to deliver the proposed project.

Regardless of whether the project manager is involved in the initial negotiations at the scoping stage or not, by the end of this stage, they will have a good idea of the client's timeframes for delivery, budget, and quality requirements.

For instance, in this Sample High-Rise Apartment Project. The client would at this stage provide the project manager with the Council approved plans for the building, (scope requirements) and would advise they have a budget of $10,000,000 (cost requirements) and expect it to be complete to Council requirements as per the plan (quality requirements) in two years.

Activity 8:

If you are currently working (or have previously worked) in an organisation that manages projects, consider the scoping process used in one of the projects.

How effective was the scoping process? Who was involved? How much is the project manager involved? What decisions were made?

If you haven't worked for an organisation that manages projects, describe what you would expect to see happen in the scoping process.

2.3 Planning

It is during this phase that a project management plan is developed all comprehensive of individual plans for – cost, scope, time, quality, communication, risk and resources. Some of the important activities that mark this phase are -making WBS, development of the schedule, milestone charts, GANTT charts, estimating and reserving resources, planning dates and modes of communication with stakeholders based on milestones, deadlines and important deliveries.

Given the information provided in the scoping stage, the project manager then needs to create a plan to deliver the project to the constraints set by the client. Obviously, if the project cannot be delivered to those constraints, then the project manager will need to negotiate a more realistic plan with the client.

The planning stage takes the idea developed at the initiation stage and splits it into a plan showing how the constraints will be met.

- **Scope** – The project plan will list all the project deliverables. This includes what the project will include, and what it won't include.

- **Time** – The project plan will detail the timeframes of the project. Not only will it list the start and completion dates of the project, but it will break it down into the timeframes which each contractor will be spending working on the project. The project manager will need to organise quotes from different contractors, who will, in turn, advise the project manager the timeframes they need to get their parts of the project complete along with their availability.

- **Cost** – Each contractor will provide their costs of delivering their services and materials for their part of the project. Each costing needs to be taken into account not only for the overall cost of the project but also for the project cash flow. The client will be paying for the project in increments, and the plan needs to show how much money they will be paying at different times. This will allow them to organise their finances accordingly.

- **Quality** – The project manager will need to determine the project quality requirements, including the Council regulations, and manufacturer's specifications. They need to use this information to assist in qualifying the contractors to see whether they can do the work.

As you can see from the above example (and it has been deliberately kept very simplistic), the project manager needs to spend a lot of time at the planning stage detailing how each of the constraints is going to be met. Although there is little to show for it at the end of planning, it definitely pays off in the long run.

Most projects have contingencies built into them to accommodate for potential delays, cost blow-outs, etc. The contingencies will depend on the nature of the project, the industry, the level of risk, etc. Adding extra time and costs in the project plan for these contingencies will buffer the project.

The more detail you put into planning a project, the less likely you are to have changes. Note the time, and cost impacts of change tend to increase as the project progresses.

Activity 9:

If you are currently working (or have previously worked) in an organisation that manages projects, consider the planning process used in one of the projects.

Was the project effectively planned? Was a project plan developed? How effective was the plan?

If you haven't worked for an organisation that manages projects, describe what you would expect to see happen in the project planning process, and what you would expect to see in a project plan.

2.4 Implementation

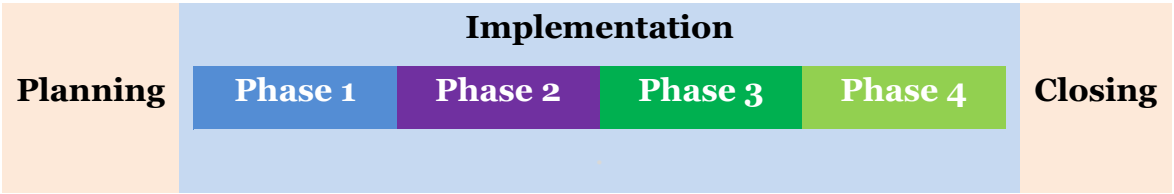
It is in this phase that the project deliverable is developed and completed, adhering to the plan as developed in the previous phase. The project execution and project monitoring and control are the 2 phases that mostly occur simultaneously. A lot of project management tasks during this phase capture project metrics through tasks like status meetings and project development updates, status reports, human resource development and performance reports.

With the plan finalised and signed off, it is up to the project manager to manage the contractors to ensure they deliver the project. If a solid plan has been put into place, then the project should go relatively smoothly.

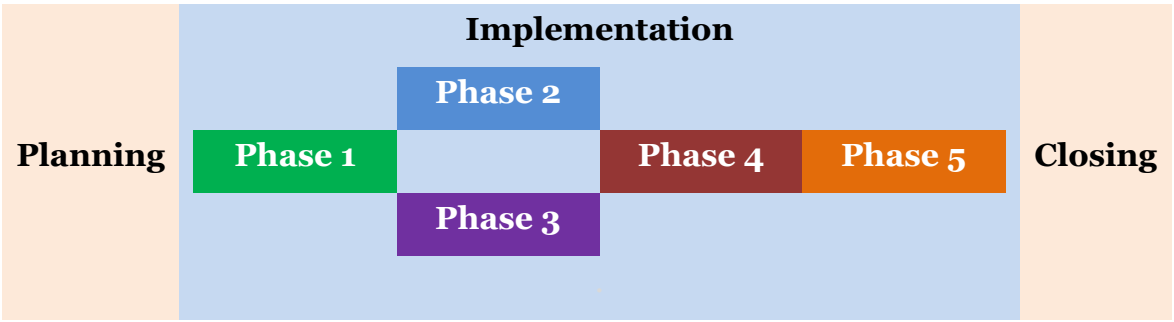
The implementation stage of most projects is usually broken up into different phases, with each phase normally containing a different set of objectives for the project.

There are several different ways in which the phases of a project can be broken up:

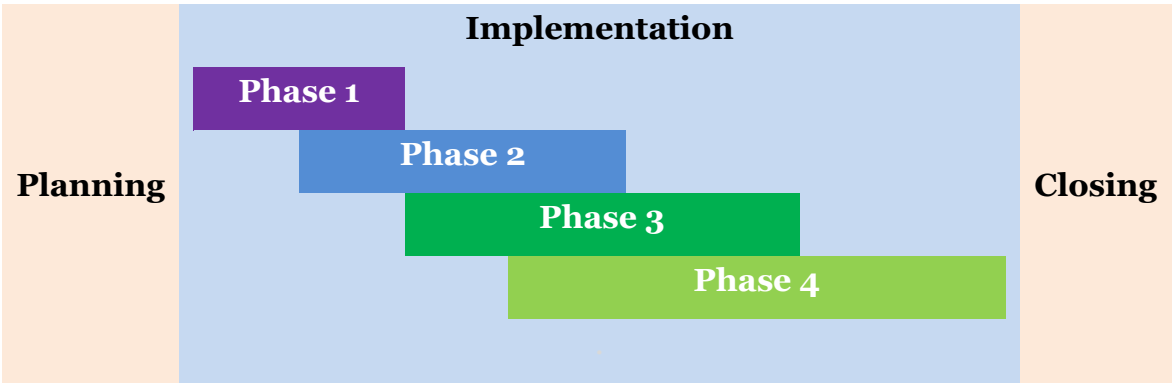
1. **Sequential phase-to-phase relationship**. This is where a new phase starts only when a previous phase is complete. The step-by-step nature of this approach reduces uncertainty but may eliminate options for reducing the schedule.



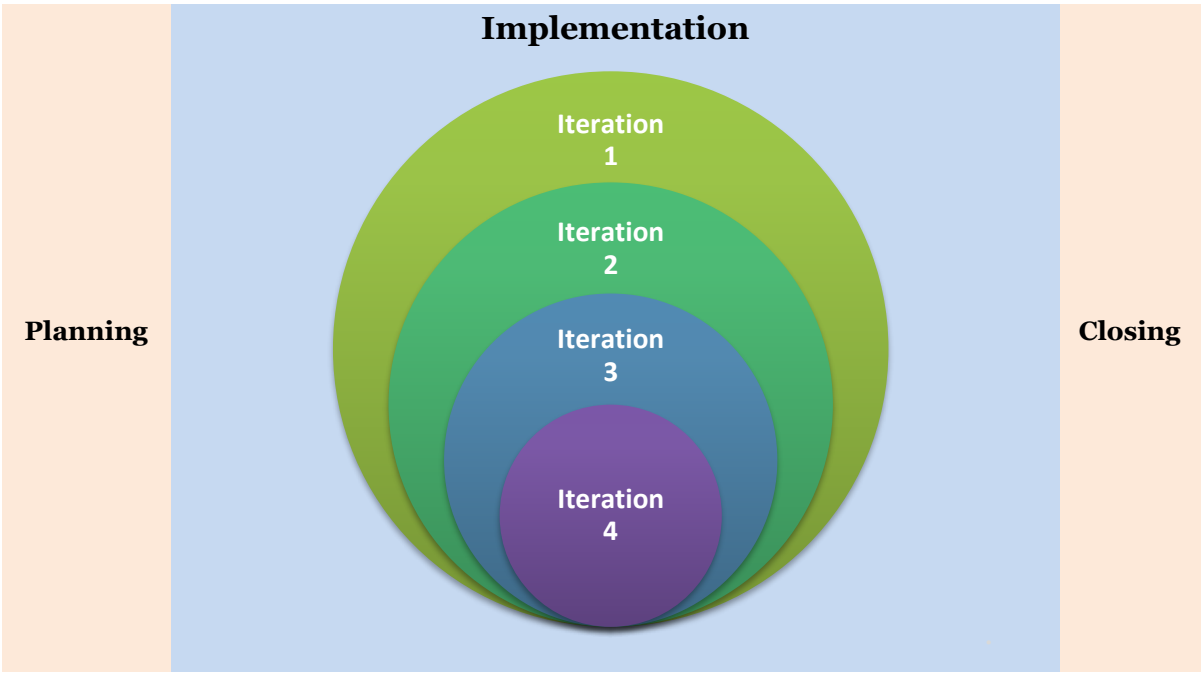
Or perhaps…



2. **Overlapping phase-to-phase relationship**. This is where a phase starts prior to the completion of a previous one. This can sometimes be applied as an example of the schedule compression technique called fast tracking. Overlapping phases may increase risk and can result in rework if a subsequent phase progresses before the accurate information is available from the previous phase.



3. **Iterative/Incremental Life Cycle.** The project phases (more commonly known as iterations) repeat one or more project activities as the project team's understanding of the product increases.



Any of these combinations may be either predictive or adaptive:

- **Predictive Life Cycle**: The project scope, time and cost are determined as early in the project lifecycle as practically possible.

- **Adaptive Life Cycle**: Projects intended to respond to high levels of change and ongoing stakeholder involvement. Also very iterative and incremental but differ in iterations being very rapid (2-4 weeks) and are fixed in time and cost.

2.5 Monitoring

This phase mostly deals with measuring the project performance and progression with respect to the project management plan. Scope verification and control to check and monitor for scope creep, change control to track and manage changes to project requirement, calculating key performance indicators for cost and time are to measure the degree of variation if any and in which case corrective measures are determined and suggested to keep the project on track.

Hand in hand with implementation comes the monitoring phase of the project. This is where the project manager will be focused on during the execution stage. Things do go wrong in all projects no matter how well planned they are.

The project manager needs to work closely with the project owner in instances where things change – the client varying the scope, time delays, unexpected cost blow-outs and any changes to quality requirements. The project manager needs to manage all of these factors. This may be done through the following but not limited to:

- Advising the client of options when one or more of the constraints has been altered.
- Modifying the plan to get the project back on track.

2.6 Closing

Closing includes a series of important tasks such as making the delivery, relieving resources, reward and recognition to the team members and formal termination of contractors in case they were employed on the project.

Finally, then the project is complete, so it is time for the handover of project deliverables and administrative closure to take place. For you to fully understand this process, we will be covering this at the end of the course once you are familiar with all the other functions of project management. At this stage though, you need to understand that the following activities take place as part of the closing of any project.

Activity 10:

Almost all organisations implement the project management life cycle, but different organisations use different terminology.
Examples include:

- Scoping – Initiation, conceptualisation, feasibility.
- Planning – Schedule, preparation.
- Implementation – Executing, production, control, development.
- Monitoring – Evaluation, auditing.
- Closing – Completion, finalisation, termination, handover.

If you are currently working in a project oriented organisation, find out the exact terminology they use for the above terms. You are allowed to use the terms used in your organisation in your assessments, provided you keep this terminology consistent.

Scoping	
Planning	
Implementation	
Monitoring	
Closing	

Activity 11:

Consider a project you are likely to manage. Discuss the structure of the implementation stage of the project.

Consider the following:

- Are the phases sequential, overlapping, or incremental?
- Would a predictive or adaptive model be more appropriate for the project?

Explain your reasoning.

PROJECT INTEGRATION

Before commencing this section, please read chapter 4 of the PMBOK Guide.

3.1 What is Project Integration?

Project integration is coordinating the project, getting it all together. It is looking at the project from a high level and putting it all together.

We will be revisiting project integration in learner guide 5 when we have covered all the other functions of project management so this section will cover project integration from a high level without referring to the other functions.

Project integration provides the project manager with a road map of taking a project through all the stages of the project lifecycle. This includes:

- Stakeholder management.
- The project charter.
- The project plan.
- The change control process.
- Project closure.

The project charter and the project plan are the two documents you should create to use for the strategies and goals of your project.

Examples have been provided below:

Sample Project Charter (Username: cstclearner Password: CstcPty@123)

Link to Sample Project Plan (Username: cstclearner Password: CstcPty@123)

Activity 12:

Now that we are starting to look into the details of a project, we will be doing most of the activities throughout the course based on a small project that is of interest to you. You will be preparing a project plan with a full set of project documentation based on the small project.

Doing these activities will help you learn the project documentation skills that you need for completing your Practical Assessment.

Please choose one of the following topics for your small project:

1. Planning an international holiday visiting at least three countries.
2. Renovating your home kitchen or bathroom.
3. Landscaping your yard.
4. Planning a function or event.

You may wish to select another small project idea, remember though not to select anything too difficult otherwise the activities will become rather time-consuming. The emphasis here is getting you working with the project management tools and methodology in preparation for the Practical Assessments.

Write the name of your project in the space below.

3.2 Project Stakeholders

The project stakeholders are the people who need to be informed throughout the project. These are the people who the project impacts on. We will cover these in some more detail later in the communication part of this learner guide, and in a lot of detail in the resource management learner guide.

For now, though, most projects will have some very important stakeholders. These include:

- **The project sponsor** – this is usually the person, company or body that pays for the project. They have the final say and will be the person who signs off on the project contracts and other documentation.

- **The project manager** – This is you. The project manager is the conduit between all the other stakeholders. They are responsible for providing communication with all the stakeholders and ensuring the project is delivered.

- **The project team** – These are the employees of your organisation who are actually delivering the project under your management. The project team members will often be in the position of needing to advise you on the duration and resourcing of the effort of work. You, on the other hand, need to motivate them to ensure their deadlines are met, and the work they produce is of a reasonable quality. In a large project team, the project team members may not report directly to you. Instead, they will report to team leaders who in turn will report to you.

- **Contractors** – These are external individuals or organisations contracted to you to perform project tasks. They have a contract with your organisation but otherwise, function as project team members delivering project tasks.

- **Suppliers** – These are organisations or individuals who provide project materials for the project team/contractors to perform their tasks.

- **The end user** – These are the people who will benefit from the end product of the project. This may be the project sponsor, but more likely it would be their customers or clients. For instance, if your project involves the development of an apartment block, the end users will be the eventual owners and occupants of the building.

- **Regulatory bodies** – These are the organisations that set the quality standards that the products and services delivered by your project will need to adhere to. An obvious example of this is the local Council for any building construction projects. These may either be government bodies or industry associations.

- **Senior executive** – This is the management that the project manager reports to. This will vary from organisation to organisation. In instances where the project manager is the owner of the business, they may be reporting directly to the client. In other small to medium businesses, they will be reporting either directly to the business owner of where they are working, or to another manager within the organisation who would have a job title such as program manager.

Activity 13:

List all the stakeholders for your project nominated in activity 12. If possible list them by name, and if they represent a company (e.g. plumbing firm, travel agency, etc.), include their job title and company. Also, include what type of stakeholder they are. Consider:

- Who is the project sponsor?
- Who will be the project manager (that will be you!)?
- Who will be the project team members?
- Who will be the contractors?
- Who will be the end user (with a project like these, the end user will most likely be you)?
- Any regulatory bodies?
- Any other higher project authority?

3.3 Project Governance

Project governance covers the oversight of a project. It provides a management structure for the project manager and their team to deliver the project. It provides the support, processes and tools needed for the project to be delivered.

Below are different structures or models of project governance:

a. **Programmatic Based** - A traditional structure in which program sector managers have formal authority over most resources. It is only suitable for projects within one program sector.
b. **Matrix Based** - This model allows program units to focus on their specific technical competencies and allow projects to be staffed with specialists from throughout the organisation.
c. **Project Based** - In this model, project managers have a high level of authority to manage and control the project resources. The project manager in this structure has total authority over the project and can acquire resources needed to accomplish project objectives from within or outside the parent organisation, subject only to the scope, quality, and budget constraints identified in the project.

The structure of project governance will vary enormously between organisations. For instance, if the project manager is the owner of the business and the project is an internal one for their own organisation, it would be expected the project manager will be providing the project governance framework themselves.

On the other hand, if the project manager is working for a very large organisation on a project for an external client that is bound by heavy government regulation, the project governance framework will be a lot different.

The things you will need to consider for your own project and organisation include:

- Project success and deliverable acceptance criteria.
- The process to identify, escalate, and resolve issues that arise during the project.
- The relationship among the project team, organisational groups and external stakeholders.
- Approval of the project organisation structure that identifies project roles.
- Processes and procedures for the communication of information.
- Project decision-making processes.
- Guidelines for aligning project governance and organisational strategy.
- Project lifecycle approach.
- Process for reviewing and approving changes to budget, scope, quality and schedule which are beyond the project manager's authority.
- The process to align internal stakeholders with project process requirements.

This will vary widely from organisation to organisation, but examples include:

Project Governance Aspect	**Examples of processes used in an organisation.**
Project success and deliverable acceptance criteria.	Audits at the end of the project and comparing the results of the project with the original project charter.
The process to identify, escalate, and resolve issues that arise during the project.	Project manager identifies the issues, they escalate the issues to the program manager who approves the resolution of the problems where appropriate.
The relationship among the project team, organisational groups and external stakeholders.	The project manager directly supervises the project team members and does all liaising with organisational groups and external stakeholders.
Approval of the project organisation structure that identifies project roles.	The program manager determines the project organisation structure.
Processes and procedures for the communication of information.	The project manager is the conduit for all project information. All reporting information is to go to the program manager.
Project decision-making processes.	Day-to-day small issues are resolved by the project manager. Decisions requiring changes in timeframes, quality or cost, are made by the program manager.
Guidelines for aligning project governance and organisational strategy.	All projects must be based on the organisation's capabilities in delivering landscaping services.
Project lifecycle approach.	The standard PMBOK project lifecycle applies.
Process for the reviewing of different phases (within the implementation stage) of the project.	Each project is broken into phases. At the end of each phase, a review is conducted by the project manager and the program manager with the outcomes reported to the CEO.
Process for review and approval for changes to budget, scope, quality and schedule which are beyond your authority.	All changes are reviewed by the program manager. Where this requires less than 20% variation in the quality, cost or timeframes of the project, the program manager makes the decision. Otherwise, it is escalated to the CEO for a decision.
The process to align internal stakeholders with project process requirements.	A skills audit is taken at the start of each project (or when a new team member joins the project team), and training is provided where possible.

Activity 14:

Discuss the project governance framework that would be used in your organisation (or an organisation you are likely to work for) in a project you are likely to manage.

3.4 Project Management Information Systems (PMIS)

A PMIS (Project Management Information System) is a software system used for managing projects, typically large projects. It is an automated tool, such as a scheduling software tool, a configuration management system, an information collection and distribution system or web interfaces to other outline automated systems.

Project managers running a very small project will probably not have access to any PMIS at all, but will instead have a selection of Word and Excel templates to use for managing their projects.

Project managers in small to medium-sized operations would use a software package such as MS Project as their PMIS. Strictly speaking, Project does not fully qualify as a PMIS unless it is connected to MS Project Server.

Large project management organisations use PMIS systems such as SharePoint and Primavera.

The benefits of using a PMIS include:

- The integration of all project documentation into one place.
- Facilitates interaction between different stakeholders through electronic linkages.
- Ensures relevant stakeholders are informed of any deviations from the established parameters of the planned project.
- Enables a project team to pinpoint the changes in a project and how they impact on the other functions of project management assisting in the decision-making process.
- Allows the project team to track the status of each part of the project.
- Improves efficiency in standardising processes, avoiding duplication of effort and errors in communication.
- Allows easy allocation of resources in the project.
- Stores information to be quickly extracted for future projects.

Types of PMIS

a. Computer-based PMIS

Computer-based PMIS are used to automatically create or revise printed plans, schedules, and budgets, which usually take days or even weeks in a manual system. They can store large amounts of information that is easily accessed, prioritised and summarised.

Some computer-based PMIS include:

- Microsoft Project
- Project Scheduler
- Welcom
- Trakker
- Primavera

b. Web-based PMIS

Web-based project software is especially helpful in situations where project team members are located at different sites. Putting project information on the Internet or other networks utilising Internet standards expedites projects that might ordinarily be delayed because team members are dispersed.'

An example of a web-based PMIS is Asana.

Evaluating information systems and communication processes

The following are some methods used to evaluate information systems and communication processes.

Information systems may be evaluated through:

- **System quality** - the information system is measured in terms of response time, accessibility, characteristics of used computer language, realisation of user's demands, correction of mistakes, model and data safety, system documentation and procedures, system flexibility and system compatibility;
- **Information quality** the information system is measured in terms of output, the accuracy of the output, promptness of output, the precision of output, the reliability of output, the arrival of output, output completions and output format.

Communication processes may be evaluated using:

Return on Investment – It is a performance measure to evaluate the efficiency of an investment (such as in this case, resources used to facilitate project communication). It measures the return on an investment relative to the investment's cost. To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment, and the result is expressed as a percentage or a ratio.

The return on investment formula:

$$ROI = \frac{(Gain\ from\ Investment - Cost\ of\ Investment)}{Cost\ of\ Investment}$$

Internal Communication Analysis Model (ICAM) - It is a useful tool for performing retrospective analyses of the characteristics of internal communication. With the help of this model, we can obtain several interpretations of the characteristics of project communication which help improve the communication process and also the project management process.

Activity 15:

Your small project in the previous two activities definitely won't need a PMIS. However, if you are working in a medium to large organisation that manages projects, find out what PMIS, if any, is used in your organisation. Write the name of the system in the space below and describe some of its features.

3.5 The Project Charter

This document formally authorises a project or a phase documenting initial requirements that satisfy the stakeholder's needs and expectations. There are several documents that are crucial to the project. One of these is the project charter which is the primary product of the scoping stage of any project.

This is generally a short document of only a few pages that a key stakeholder such as the project sponsor can use to get a high-level overview of the project. They don't need to know the details. All they generally need to know is:

- What am I getting?
- How long is it going to take?
- How much is it going to cost me?
- Will it be of the quality that I require?

The project charter supplies this information. Obviously, this will not be enough information for the project manager to use, but other stakeholders (the project sponsor and/or the project manager's supervisor) want a brief summary of the project.

This document is generally produced during the scoping stage of the project. During the planning stage of the project, the figures and details in this document are likely to change as the details are worked out. Generally speaking though, once the planning stage is complete, the document charter is set in stone. This is what the project manager will need to deliver during the implementation stage of the project.

The following example is a project charter for a high rise building project. The notes in grey text have been deliberately placed for your reference. When you create these documents, please remove the notes in grey text:

Project Charter

Project Name: 12 storey apartment block construction project	
Prepared by: Jeff White	
Date: 21/05/2012	
Synopsis:	*Briefly summarise the salient aspects of the project by answering the questions "Why?" (purpose), "What?" (product description/ scope), "When?" (time), and "How much?" (resources)* Why – Expansion of property portfolio What – 12 storey high rise apartment block When – Two-year timeframe How much – $10,000,000

Purpose/ **Business Need:**	*Identify the customers who are to receive and benefit from the product developed by the project and the need the product is intended to meet (either as a problem to solve or as an opportunity to exploit)* To have 48 luxury apartments to sell to investors for between $450,000 and $1,200,000 each to meet a current shortage in the housing market and to return a net profit of $3,500,000.
End Product Description and Deliverables:	*Identify what product is to be delivered at the end of the project, and at any interim delivery points. Describe the product sufficiently to enable the project team to create it, and for agreement to be reached at product delivery time that the product has been correctly produced* Excavation and building of foundations, construction, utilities and interior decoration of building ready to sell to investors.
Project Exclusions:	*Record what will be excluded in the specification for the project* Purchasing block of land, architectural planning and council approval. Sales and future support to investors.
Assumptions:	*Briefly identify salient assumptions of the project* The architectural plan has been finalised, and Council approved.
Constraints:	*Briefly identify salient constraints of the project:* 2-year timeframe, $10,000,000 budget, Council requirements per approved plan.
Risks:	*Briefly identify main risks, if any, which can be anticipated to have a major impact on the process and/or outcome of the project and which require decisions or actions by the project sponsor or team* Potential cost increases in raw materials. Contractors not able to meet their obligations.
Resources:	*Indicate required and/or available resources to be used on the project. As appropriate, indicate financial, personnel, and material resources (such as facilities, equipment, supplies, and services)* All work will be conducted by subcontracting firms that already have a strong working relationship with the developer. Five people will work in the project management.

Stakeholders:	*Identify project stakeholders who will either influence the project or will be impacted by the project.* Senior manager – project sponsor. Project manager – Responsible for project. Contractors – delivering the project. Investors – People or companies buying the units. Local Council – The regulator. Utilities companies – providing the utility infrastructure.	
Approach:	*Indicate the way in which the project will produce the product* The project will be delivered by subcontractors under the supervision of project manager.	
Communication and Reporting:	*Identify communication required between the project sponsor and the project team* Weekly informal reports sent by e-mail from the project manager to the client. Formal written reports to be e-mailed to the client upon successful completion of each project phase, or with any change requests.	
Acceptance:	*Indicate the method and criteria for the project sponsor to accept the specified project deliverables as complete and adequate* Acceptance to be signed off by the client following a three month warrantee period.	
Change Management:	*Indicate the procedures to be used for making and documenting changes to the charter* Change request signed off by the project manager and the client.	
Approval	Project Manager:	Sponsor:

Covering each section are the following:

Synopsis – A very brief outline of the project, including overall scope, timeframes and costs.

Purpose/Business need – This is the business justification for the project. It may sound like common sense, but a project must have a purpose to why the time and money is going to be spent on it. Normally you would have no say on the justification of a project – you will be assigned a project and be expected to deliver it. However, the client needs to be convinced they will be able to recover their investment. For instance, if they are investing $1,000,000 in the construction of a prototype product they intend selling, then they will need to satisfy themselves that the profit of the sales of the product will give them back their initial $1,000,000 investment. Likewise, a government funded the project will need to be justified to ensure the government will see results (financial or otherwise) following expenditure of funds for the project. In this section, you will need to add the justification of the project.

End product description and deliverables – This is what is going to be in scope - what you will be delivering. Your project plan will largely be based on what appears on this list.

Product exclusions – This is perhaps equally important as the deliverables. By specifying what is not in scope, you will have a strong case for negotiation should your client decide to add some of these later to the scope. These may also include the work done by related projects.

Project management – This covers the agreed project management methodology. For projects in these assessments, please use PMBOK even though other projects you work on in the future may use other methodologies.

Constraints, assumptions, risks – Assumptions include what has already been done to date, any projects running in parallel going successfully, etc. The constraints normally include limits to budget, timeframe, quality requirements, etc. Also, list some of the major risks. Risk management will be covered later in the course, but suffice to say that risks are problems that could occur in the project that project management needs to carefully monitor.

Resources – Give an indication of the staff members and contractors involved in the project.

Stakeholders – List all the stakeholders involved in the project, with emphasis on the project sponsor, regulators, and end users as appropriate.

Approach – Covers how the project is going to produce the end product or service.

Communication and reporting – Cover the reporting lines including who (staff and contractors) reports to the project manager, who the project reports to (project sponsor, etc.), the frequency of reporting, communication methods, etc.

Acceptance – The process of who signs off on the project, what determines acceptance, etc.

Change management – The change management process, including the completion and signing of change requests, updating documentation.

Other – Any other aspects that need to be included in the high-level charter document.

Activity 16:

Consider the small project you have nominated in activities 12 and 13. Complete a project charter for your project using the template below.

You can view the example above or a project charter that you will be using in an assessment here to get an idea of how it should be populated:

Sample Project Charter (Username: cstclearner Password: CstcPty@123)

Remembering you are populating the template below for your small project that you nominated in activity 12.

Project Charter

Project Name:	
Prepared by:	
Date:	
Synopsis:	
Purpose/Business Need:	
End Product Description and Deliverables:	

Project Exclusions:	
Assumptions:	
Constraints:	
Primary Risks:	
Resources:	
Stakeholders:	
Approach:	
Communication and Reporting:	

Acceptance:		
Change Management:		
Approval	Project Manager:	Sponsor:

3.6 The Project Plan

The project plan is the project manager's bible.

The project plan is a formal approved document used to broadly guide the project, and facilitate communication among the stakeholders. The project plan takes its objective from the project charter and the scope statement.

It is a document covering all the details of the project down to a very detailed level. It can be presented in the form of a Gantt chart or any other document that displays project activities in a timeline.

The project plan speaks in general, for example:

- *Why is the project undertaken?*
- *What value will it add to the organisation?*
- *What will the output or deliverables of the project be?*
- *Who will be involved in the project?*
- *What is the deadline?*
- *What are the milestones?*
- *What is the scope, budget and schedule?*
- *What technology is going to be used to accomplish the task?*

This document is generally 100 – 200 pages in length and covers all the details of the project down to a very detailed level. A well-written project plan does take a long time to prepare, and you will find a large proportion of this course will cover the development of the project plan.

Without a well-written project plan, a project is likely to fail. There is a common saying:

"You cannot plan to fail, but you certainly can fail to plan."

The more effort you put into developing the project plan, the more likely the project will succeed.

A well-written project plan will cover all ten functions of project management. They will not be detailed here, but they will be covered in detail as the course progresses. A good project plan will include a plan for each of the ten functions, along with appendices with supporting information. As this course progresses, we will cover each in detail, and you will learn how to create each document.

A complete project plan would be too big to fit into this document, but you can access a sample project plan that you will be using in your assessments:

Link to Sample Project Plan

(Username: cstclearner Password: CstcPty@123)

A typical project plan is separated into three main sections:

1. The introduction – Includes the executive summary and approval by relevant stakeholders.

2. The body of the plan – Includes a separate written plan for each of the ten functions of project management.

3. The appendices – Contains all the supporting documents behind the project plan.

Any project manager, regardless of their technical background, should be able to pick up a project plan like this and get their head around the project. Sure they will need specialist technical advice from the project team members and contractors where needed, but they will be able to read the project plan as this is a standard format.

The good news for you is we will be getting to know this format very well as the course progresses. In fact, you will shortly be doing an activity on populating the introductory section of the project plan.

You will cover populating the body of the project plan in learner guide 5.

The appendices contain numerous documents that you will be populating through the course of the learner guides.

Looking at the introduction and the body of the project plan in more detail:

The Introduction of the Project Plan

- **Distribution List** – This lists the stakeholders who the project plan should be distributed to. Copies of the project plan should always go to the project sponsor and the project manager. If the project manager has a supervisor (e.g. program manager), then they should also be listed on the distribution list. In instances where there is a steering committee, there may (or may not) be a requirement to distribute the project plan to all members of the steering committee. It may also need to be distributed to one or more primary contractors who are required to be across the entire project. Who receives the project plan does vary from organisation to organisation, and even

within the same organisation, from project to project. This will be something that you will need to clarify with the senior management of your organisation, or with the project sponsor.

- **Version Control** – As the project progresses, the project plan will change due to the change management system. Generally speaking, a new version of the project plan will be released with each successive approved change request. The version control register at the front of the project plan will list the current version, as well as all previous versions of the project plan. Against each version number will be a summary of the changes made to the project plan. The first version will just have the words "Initial release" next to version 1.

- **Project Registration** – This is a small table listing the basic information of the project plan including the name of the project, the name of the project manager, name of the project sponsor and the date the project plan was created.

- **Rationale** – This is a brief summary of the history of the project, and its justification (how it will benefit the end users).

- **Business Drivers** – This is a brief description of the organisational drivers behind the project. If the project is within your own organisation, what is driving the project? Is it the senior management are happy to invest $460,000 into the project knowing within three years it is going to generate an additional $3,800,000 profit? If the project is for an external client, what is driving them to invest the money into the project? Is this going to be a new product base that will generate a new revenue stream for them? This information needs to go into this section.

- **Key Objectives** – This needs to cover the main objectives of the project. This is often done through SMART (specific, measurable, attainable, realistic, time framed) objectives. What does the project hope to achieve? The release of a new product? The development and rolling out of a new financial database system? The construction of a new shopping centre?

- **Benefits** – This should cover the benefits of the end product of the project. It may also list the benefits that occur during the product. Benefits could include a return on investment, expansion of product scope the client will have available, a more efficient corporate IT system, etc.

- **Organisational Impacts** – This covers how the project will affect the organisation during implementation. For instance, if the project involves the refurbishment of the client's office, then clearly there is going to be some degree of disruption to the staff as the renovations take place.

- **Recommendation and Signoff** – This is perhaps the most important part of the project plan. Certain stakeholders will be required to sign off on the project plan before any work may commence on it. This would always be the project sponsor, but other stakeholders may be required to sign off on the project plan. A table is normally provided for this containing their names, job titles, organisations, and space for them to sign and date the project plan to indicate their approval. This is particularly important for the project sponsor because when stakeholders sign the project plan, they are committing themselves to pay for the project.

The Body of the Project Plan

The body of the project plan includes a separate plan for each of the ten functions of project management.

- **Scope Plan** - This covers what will be produced in the project. This is the end product and its features.

- **Time Plan** - This covers the schedule of the project, including the start date, the finish date, and dates of key milestones occurring during the project. The time plan will include a project Gantt chart showing the start date and duration of all the tasks within the project. It should also include calculations of the times used in the Gantt chart.

- **Cost Plan** - This is the project budget. It will cover how much the project will cost, and is usually broken into the project phases. It will also cover how the project will be funded and when the money will come in. The project cost plan will include appendices covering the costs of each task, and a project cash flow diagram.

- **Quality Plan** - This plan covers the meeting of quality standards. This will vary greatly between projects but would include compliance with government, industry standards, licensing requirements, organisational policies and procedures, etc.

- **Human Resources Plan** - This covers the people working on the project. It includes the project organisation chart, the training and support of the project team members.

- **Communication Plan** - This covers stakeholder management and ensuring project communications flow smoothly, including the formal reporting and also informal communications.

- **Risk Plan** - This covers the management of things that could potentially go wrong in the project.

- **Procurement Plan -** This covers the management of the project contracts and purchases.

- **Integration Plan** - This covers how the other functions of project management will be integrated to ensure all aspects will be carefully worked.

Activity 17:

Complete the project plan for your small project nominated in previous activities using the project plan template found on the link below:

Generic Project Management Templates
(Username: cstclearner Password: CstcPty@123)
Download "Project Plan Template" under Integration

You are only to complete the introductory section of your project plan. Other parts of the project plan will be covered as the course progresses.

A sample project plan can be viewed on the following link. Please note this is a very comprehensive document and this activity only requires you to complete the section on the contents page.

Sample Project Plan (Username: cstclearner Password: CstcPty@123)

3.7 Project Closure

Once the project is complete, there are usually some loose ends to wrap up. These normally include:

- Final audit.
- Finalisation of accounts and other financial documentation.
- Writing and delivery of project final report.
- Project evaluation.
- Finalise lessons learnt documentation and communicating it where needed.
- Settling of financial liabilities.
- Transferring assets/deliverables to the project sponsor.
- The transition of responsibility or ownership of project deliverables or products.
- Signing off by the project sponsor.
- Warrantee requirements.
- Archiving of project documentation.

One area listed above is the lessons learnt documentation. There is a saying:

"Life is too short for you to keep learning from your mistakes, so you should also learn from the mistakes of others."

That is very true. Whilst even the best of us make mistakes from time to time, we learn from them. We are more likely to learn from our mistakes if we document these lessons learnt and refer to them later.

The lessons learnt documentation allows an organisation to accumulate a record of all the mistakes made and the lessons learnt. During the planning stage of the project, the project team should get together with the project manager and go through these lessons learnt to assist with the planning process. By refreshing your memory with these, you are less likely to make the same mistakes in future projects.

Activity 18:

Consider a project or activity similar to your small project nominated in previous activities that you have previously completed.

You will have probably made a few mistakes in that project and will have no doubt learnt a few lessons. Write these down in the space below to ensure you don't make the same mistakes during this project.

PROJECT COMMUNICATION

Before commencing this section, please read chapter 10 of the PMBOK Guide.

4.1 Introduction to Communication

There are a variety of methods of communication you can use in project management.

- **Verbal communication** – The sharing of information between individuals using speech. This includes the words you say and the tone in which you say it. Across all projects, verbal communication, supplemented with other communication methods, is constantly being used to share information, inquire, persuade, influence, motivate, negotiate and much more.

- **Non-verbal communication** – This covers hand gestures and other forms of body language, which often speaks louder than words. Non-verbal communication supplements verbal communication, and oftentimes conveys what verbal speech cannot.

- **Written communication** – This covers e-mail, written reports, letters and other documents.

The different media that can be used in communication includes:

- **Phone** – A quick method of contacting one (or more) person to quickly communicate information to them. Usually useful for getting a quick response or call for action from them.

- **E-mail** – Useful where you are providing electronic documents or need to clearly articulate information that may be misinterpreted verbally. There is a danger that e-mail is overused, so it is often best to follow up an important e-mail with a phone call.

- **Internet portal** (forums, chat, etc.) – Useful for collaboration with other team members in cases where they work remotely. Allows collaborations to be documented for future reference.

- **Face to face meetings** – Regular meetings for teams who are based in a single office are very useful for communicating information relevant to the team, and also for building team morale. Face to face meetings may also be

done with two individuals where essential information needs to be communicated, or an issue needs to be worked.

- **Video conference** – Same purpose as face to face meetings where one or more team members (or other stakeholders) is remotely located.

- **Letter** – A formal communication process where information (e.g. signed reports, contracts, etc.) need to be provided in hard copy.

- **Social media** (Twitter, Facebook, etc.) – Useful where public information about a project needs to be communicated informally to a captive audience.

- **Mass media** (Television, radio, newspapers, etc.) – Public information to be communicated to a very broad audience (e.g. part of an apartment construction project could involve the marketing of the apartments off-the-plan sales to the general public).

Activity 19:

Consider the different media you could use for the communications in the project you have determined in previous activities.

Discuss the merits and shortfalls of each means of communication.

Phone
E-mail
Internet Portal
Face to Face Meetings
Video Conference
Letter
Social Media
Mass Media

4.2 Communication and the Project Life Cycle

The communication methodology used changes in different parts of the project life cycle. Examples of communication used at each stage include:

Scoping

- Meetings/presentations with project sponsor/client/project manager to conceptualise project.

Planning

- Meetings to negotiate contracts.
- Requests for tender/quote to potential suppliers.
- Quotes, draft project plans, etc.

Implementation

- Project status reports.
- Notices of progress payments.
- Regular project team meetings.
- Communication of project tasks to team members and contractors.
- Status meetings with project sponsor and other stakeholders.
- Progress reporting to the general public via the media.

Monitoring

- Quality audit reports.
- Urgent phone calls and e-mails regarding issues.
- Group access to the issues register.
- Reporting the project outcome through the media.

Closing

- Final project report.

Examples of Communication that happen throughout the Project Lifecycle

As an example, a project manager may be responsible for the development and delivery of a financial management database for a large corporate client. They will manage five developers and one tester. Within the development company, there are also two sales representatives who will be liaising with the company during the sales process.

The communication that will be occurring at each stage of the project will include:

Scoping

- Meetings with the senior manager, project manager, sales representatives and client representative to high-level scope the project.
- E-mails and meetings negotiating contract to perform a detailed scoping analysis and create a project plan.
- Meeting to sign off on initial contract.
- Preliminary meetings with potential contractors and project team members to determine whether proposed scope of work can actually be done.
- Communications with regulatory authorities (as needed) to predetermine if any permits are required.

Planning

- Drafts of the project plan to be sent by the project manager to the client as needed to assist with negotiating the finer details of the project constraints.
- Meetings to discuss, plan, and negotiate contracts. Includes senior manager, project manager, sales representatives and client representative.
- Project manager and client representative negotiate resourcing of their side of the project with their respective senior managers.
- Project manager holds meetings with developers to determine the effort required to develop the required functionality and to brainstorm potential solutions.
- A communication plan is finalised.
- Once the final plan has been successfully negotiated, the senior manager and client representative meet to sign the project contracts and sign off on the project plan.

Implementation

- Project manager runs a kick off meeting at the start of the project to get the project team motivated.
- Project manager e-mails Gantt chart and task list to each developer at the beginning of each week.
- The project manager has a team meeting with the developers and tester once a week on a Wednesday morning.
- The project manager documents the meeting minutes and sends them to the client representative to approve and distribute around the team.
- The project manager writes a project status report and provides to the client representative as an e-mail attachment once a month.
- The project manager reports any pressing issues or successful outcomes to the client representative by phone as they happen.
- The project manager meets with the senior management every week on a Friday morning to discuss the project.
- The project manager meets with the client representative one week after delivering the monthly status report.
- The project administrator prepares the invoices for the client and sends them to the project manager to approve before the project manager sends them directly to the client representative.
- The client representative sends the report to their senior management and has a meeting with them a few days afterwards to discuss the progress of the project.

Monitoring

- The tester advises the developers of problems with the database through the internal web-based issues management system.
- The tester provides a verbal status report of the quality issues at each weekly project team meeting.
- The client's internal testers communicate the issues they discover to the project developers through the internal web-based issues management system which they have access to.
- The developers advise testers of rectified issues whose e-mail automatically generated by the web-based issues management system as they close each issue.
- Complex issues are discussed at the weekly project team meeting. The project manager forwards all questions requiring a decision to the client representative by e-mail, to be followed up if unanswered at the next client meeting.
- The project manager communicates any urgent issues that have the potential to slow down development to the client representative by phone, with a follow-up e-mail. The project manager records the e-mail in the issues management system.
- Issues not resolved between the project manager and the client representatives are escalated to the senior management of each organisation for resolution.

- Issues requiring additional scope, time or cost need to be documented by the project manager, who will prepare a change request. The change request and all project documentation (project plan, etc.) must be signed off by both the client and project manager's CEO before being implemented.

Closing

- Project manager to send a final invoice to the client for payment.
- Project manager to meet with client representative for final project handover.
- Project manager to write a final report for the client, summarising all project management functions compared to the project baseline. Report to be sent to the CEO for approval and signing off. Once CEO has approved the report, they send it to the senior management of the client's organisation.
- The project is closed once final report has been signed by the client's senior management and a copy of the signed report has been sent back to the project manager.

As you can see above, the communication processes are quite complex. Some of these could be established by internal policies and procedures (e.g. the requirement for the CEO to approve and sign off on the final project report). This may, of course, vary in your organisation.

With that in mind, you will need to find out the communication protocols in your organisation, such as:

- Who is allowed to sign off on reports, plans and change requests?
- Who is allowed direct contact with the client? Sometimes all communication is done between the project manager and the primary client representative. Other times the communication is a lot more open to the project team members and their respective counterparts in the client organisation.
- Whether there are specific ways of communicating. For instance, in the examples under 'Monitoring', they had a web-based issues register where all issues were stored for easy management. Informally communicating the issues through phone calls and e-mail would be a nightmare to manage.

Activity 20:

Think about the communication processes that need to occur for successful delivery of your small project nominated in activity 12.

Write down the communication processes that need to occur at each stage of the project. Consider which stakeholders you need to be communicating with, and what should be communicated at each stage of the project.

Scoping

Planning

Implementation

Monitoring

Closing

4.3 The Stakeholder Analysis

The stakeholder analysis provides an outline for determining who your stakeholders are, and what their needs are.

The template below allows you to list all the stakeholders and to determine their needs. This is primarily for communication which we will cover later in the course. The four columns are as follows:

1. **Specific Information Needs:**
2. **Best Source of Information Needed:**
3. **Planned Method of Delivery:**
4. **Timing Considerations:**

Activity 21:

Complete the stakeholder analysis for these stakeholders for your small project using the template below.

Stakeholder Analysis Template

Project Name:				
Prepared by:				
Date:				
Project Stakeholder	**Specific Information Needs**	**Best Source of Information Needed**	**Planned Method of Delivery**	**Timing Considerations**
Project Manager				
Customer #1				
Customer #2				

Customer #3				
Performing Organisation				
Project Team Members				
Sponsor				
Senior Executive				

Other Internal Stakeholders				
Other External Stakeholders				

4.4 Communicating with Project Stakeholders

The stakeholders could include:

Project sponsor

Project manager

Project team members

Senior management

Project contractors

The media / general public

Suppliers

Government agencies/authorities

Each stakeholder would have very different needs. For instance, the project team members need to know the tasks they need to complete this week. Senior management, the client sponsor or the general public do not need to know these details.

The client and senior management need to know that the project is going to schedule and to budget, so they need regular status reports.

Using the example of the IT company developing a database (click on this link), the project stakeholders of the project along with their communication needs could include:

- **Project Manager** – Conduit for all communications. Approval for the commencement of project including milestone deadlines and overall constraints. Requires progress updates from project team members and immediate awareness of issues. Quotes, resource availability, procurement, etc. for the creation of the project plan. Approvals for any agreed project changes.

- **Development Company CEO** – Scope, time and cost of new projects. A copy of project plan and all status reports. Finalisation report.

- **Five developers** – Overall scope of the project, and their project tasks as per schedule. Details on clients they are liaising directly with. Any issues relating to their particular area of work (code they have actually worked on).

- **Tester** – Quality standards for items they are testing, advice from project team members when to commence testing. Project tasks as per schedule.

Project team member managers – Dates their team members will be working on the project and the level of commitment (days per week, etc.).

Project Administrator – Assisting project manager in coordinating all communication tasks. Prepares draft reports, and other documentation for the project manager to distribute.

- **Two sales representatives** – Meetings with the project manager, CEO and client's senior manager for negotiation and closure of the sale.

- **The client's representative** – Progress of project including achievement of each milestone, any issues.

- **The senior manager in the client organisation** – Major issues, the progress of the project.

- **Two testers working for the client's organisation** – Advice from project manager as to when to start testing and what areas require testing.

Activity 22:

Refer back to the communication processes at each stage of the project lifecycle in activity 19.

Make a list of all the stakeholders involved in the project in the space below and briefly describe each stakeholder's communication needs.

4.5 The Communication Requirements Analysis

One useful tool for capturing the required communication processes is the communication requirements analysis worksheet. It looks at the different areas of communication need for the different stakeholder groups in the project.

The columns of the worksheet are as follows:

- The general area of communication needs: This covers the different aspect of communication being considered.

- Information needed, and for whom: For each general area, different stakeholders need to be informed. These stakeholders need particular pieces of information.

- Optimum information format(s): This covers how the stakeholders need to be communicated with. It may be by formal means such as project status reports or minuted meetings, or through informal means such as phone or e-mail.

- How is this communication essential to the success of the project: Good communication ensures the project progresses along as it should. A project can completely stall simply due to one person not sending the right information.

- The decision to implement Yes/No: The communication methods covered in the table need to be agreed upon. This column covers that.

An example has been provided below for the above IT development project (click on this link). This is a fairly typical example, but the information could vary substantially in different projects:

Communication Requirements Analysis Worksheet

Project Name: Financial Management Database Development				
Date: 5 June 2012				
General Area of Communication Need	**Information Needed, and for Whom?**	**Optimum Information Format(s)**	**How is this communication essential to the success of the project?**	**Decision to implement Yes/No**
Project Organisation Relationships	Project scope, cost, time, quality details. Required by senior management of both companies, project manager, and sales representatives.	E-mails, including e-mailed attachments. Phone calls for urgent matters.	Ensures the client gets the required financial management database developed for them.	Yes
Stakeholder Responsibility Relationships	Project scope, cost, time, quality details. Required by senior management of both companies, project manager, and sales representatives.	E-mails, including e-mailed attachments. Phone calls for urgent matters. Project plan.	Ensures the client gets the required financial management database developed for them.	Yes
Sponsor Relationships	Project scope, cost, time, and quality details. Required by the project manager and client's representative.	E-mails, including e-mailed attachments. Phone calls for urgent matters. Project plan.	Ensures the project progresses as per project plan.	Yes
Senior Executive Relationships	Project scope, cost, time, quality, and overall progress. Required by senior management of both companies.	Project charter and project status reports.	Ensures the client gets the required financial management database developed for them.	Yes

Disciplines, Departments, Specialties, etc.	Communication of development status between the different team members.	Weekly team meetings.	Ensures the tasks are allocated to the most appropriate people in the team, and different team members understand the impact of their work on other team members.	Yes
Logistics of Project Staffing by Location	Nil – all project staff will be in the same building.			
External: Media	Nil			
External: Community	Nil			
External: Government, Regulatory Agencies	Nil			

Activity 23:

Referring back to the previous two activities, perform a communication requirements analysis for your small project using the template below.

Project Name:				
Date:				
General Area of Communication Need	**Information Needed, and for Whom?**	**Optimum Information Format(s)**	**How is this communication essential to the success of the project?**	**Decision to implement Yes/No**
Project Organisation Relationships				
Stakeholder Responsibility Relationships				

Sponsor Relationships				
Senior Executive Relationships				
Disciplines, Departments, Specialties, etc.				

Logistics of Project Staffing by Location				
External: Media				
External: Community				

External: Government, Regulatory Agencies				

4.6 The Communication Plan

The next communication document covers the requirements of the specific stakeholders, going into more detail than the communication requirements analysis.

The communication plan lists the key stakeholders and covers their specific communication issues, the key messages that need to be communicated to them, the methods of communication and the timing (e.g. weekly team meetings).

Activity 24:

Complete the communication plan below for your small project using the information you used in the previous activities.

Communication Plan

Project Name:
Prepared by:
Date:

Key Stakeholders (Distribution Schedule)	**Stakeholder Issues**	**Key Messages to Communicate**	**Communication Methods to be Used** (written, one-on-one, electronic, meetings, etc.)	**Description of Specific Communication** (content, format, level of detail, etc.)	**Timing Issues** (see also *Bar Chart, Project Schedule*)	**Other**
Client						
Senior Management						
Sponsor						

Project team members						
Employees						
Subcontractors						

Suppliers						
Unions						
Government Agencies						

News Media						
Community						
Community						

Other						

PROJECT CHANGE MANAGEMENT

5.1 Introducing Change Management

We have already established that a project does not necessarily go to plan. Issues will arise which will need to be documented and resolved.

Some issues require a change to the scope, the cost, the timeframe or the quality processes which we have already discussed in detail. Other issues will require changes to the staffing, the communication processes, the risk management or the procurement. These will be detailed later in the course, but just be aware now they can be changes to the project.

Examples of changes to a project could include:

Scope

- Your client asks for an additional function in a piece of software that you are creating.
- Due to unexpected cost increases which your client cannot afford, your company will be constructing three unit blocks, not four.

Time

- The delivery of some essential raw materials has been delayed by two weeks putting back the start date of several project tasks.
- Phase two of your project has taken twice as long to complete as originally planned, meaning phase three has been delayed.

Cost

- The raw materials needed for your project has increased unexpectedly.
- In order to meet a deadline, you need to hire eight new staff which will increase the project's cost.

Quality

- The government has just released a new industry standard that applies to your project. The conditions are more stringent.
- An additional audit checklist has been created to monitor an unexpected recurring problem in your project.

Human Resources

- A key staff member leaves your organisation, and senior management decides not to replace them.
- Special product training is needed for two of your staff members who will not be able to perform a few future tasks without the training.

Communication

- Weekly reporting by a contractor is too cumbersome especially as they are doing an excellent job. The project manager decides to reduce the reporting requirement to monthly.
- An additional stakeholder has been identified who needs to be kept informed of the outcomes of auditing processes.

Risk Management

- A new risk has been identified which needs to be closely monitored through quality assurance processes.
- Your organisation has adopted a new risk management system with new policies and procedures very different to those you have already used.

Procurement

- A key contractor has unexpectedly gone out of business requiring you to find another contractor.
- A large change in scope requires the project manager to write a contract variation to incorporate the additional scope in the contract.

You will probably notice some of the examples above impact on multiple areas. For instance, the second item under scope is a result of cost. The second item under cost also impacts HR as new staff members are needed, and the second item under procurement also results from a change in scope.

You will have probably seen projects that have had variations as it has progressed, but the variations were only accepted verbally. These variations may have been minimal, but collectively a large number of variations could blow the project completely out of proportion and before you know it the project goes out of control.

To avoid this situation occurring, a formal change management procedure must be established as part of the planning process.

Creating a formal change management procedure ensures:

1. The project sponsor is clearly aware of any proposed changes.
2. The project remains within time, cost and quality requirements.
3. All affected team members and contractors are made aware of the changes, and their impact.
4. The project team does not perform any work no longer needed (or otherwise unauthorised) by the project sponsor.
5. Affected stakeholders become aware of the impact the changes have on other functions of project management.

5.2 The Change Request

Consider the following scenario:

Your client is insisting the development of a customised financial management database you are developing for them to be delivered on time, and they have a cost buffer which they can access. You find that by adding three new C++ programmers to the project, you can deliver it. The cost increase with the new staff will be $20,000.

The client has also asked for additional scope – the development of a secure web interface into the system. This is outside of the scope that your development company can do, but you know another company who can subcontract to you to perform the work. Your client is happy with this arrangement. The contractor will do their part of the work for $52,000 and will require a contract/MOU to be drawn up. The developer will need to provide weekly status reports to your team and your online issues register will need to allow for web interface based issues to be allocated directly to their team by e-mail to their project manager.

The project schedule will need to be reworked to incorporate the new scope, so the web interface is completed prior to the staff testing phase of the project.

As the web interface is considered a high-risk development project, you will need to add an additional risk to the risk register. And additional audit template will need to be created to closely monitor the quality of the work they will be producing for the project.

When you analyse the above scenario, you will find the change is around scope and HR, because the client has requested additional scope and in order to meet the deadline you need to hire additional staff.

Although the change is only to two of the functions, this impacts on all eight functions of project management. Specifically, they are:

Scope

- The addition of secure web-based portal to the financial database.

Time

- Project schedule to include times/tasks for development of web portal to be completed prior to staff internal testing.

Cost

- $20,000 for three new staff.
- $52,000 for procurement of web developer.

Quality

- New staff must be proficient C++ programmers – update quality plan accordingly.
- Issues register to incorporate web development issues to be assigned to the web development project manager.
- Audit template to be created for web development work.

Human Resources

- 3 new C++ programmers.

Communication

- Web developer to provide weekly status reports.
- Web related issues from issues register to be assigned and e-mailed directly to web development project manager for resolution.

Risk Management

- The addition of online security related risks to the project.

Procurement

- The new contract with a web developer.

This is quite a substantial change to the project, but do note changes of this scale happen to projects all the time, no matter how well they have previously been planned.

Now that you have been informed of this enormous change, how do you deal with it?

A well-run project team will have a change management process in place. This includes a change control procedure and a change request template where the changes are populated and signed off. Once the change request has been signed off, then other project documentation will need to be altered, but we will cover that later.

You have been supplied with a sample change request template. This has been included below with the change information included in it.

Project Change Request

Project Name: Financial Management Database Development

Prepared by: Jeff White

Date: 23 May 2012

Type of change:

x	**Scope**		**Time**		**Cost**		**Quality**
	Communication	x	**Resources**		**Risk**		**Procurement**

Areas impacted:

x	**Scope**	x	**Time**	x	**Cost**	x	**Quality**
x	**Communication**	x	**Resources**	x	**Risk**	x	**Procurement**

Changes to Supporting Detail? (explain):

Description of Changes being made:

1. Addition of web portal to the scope of the project.

Risk Issues Prompting Changes:

(Change by client – not risk related)

Corrective Action:

The addition of web portal interface to scope.
The addition of development of web portal to project schedule, ensuring it is completed before the commencement of internal staff testing.
Addition of $52,000 cost for development.
Addition of internal audit tool to QA development of web portal.
Modification of communication process, so web developer provides weekly reports to project team and all website related issues are directed to the developer for rectification.
The addition of web security related issues to the risk register.
The new contract set up for the web design developer.

2. The addition of three new C++ developers to project team to ensure the project is delivered on time.

Risk Issues Prompting Changes:

The risk of the project not being delivered on time.

Corrective Action:

$20,000 extra cost for wages of three new staff.
New staff must be C++ proficient.

Stakeholders being notified:		
Name/Title:	**Signature:**	**Date:**
Name/Title:	**Signature:**	**Date:**

So this gives you a good idea of what a change request needs to look like. Once it has been completed, it needs to be signed off by relevant stakeholders. In the above example, it should be signed off by the project manager and by the client.

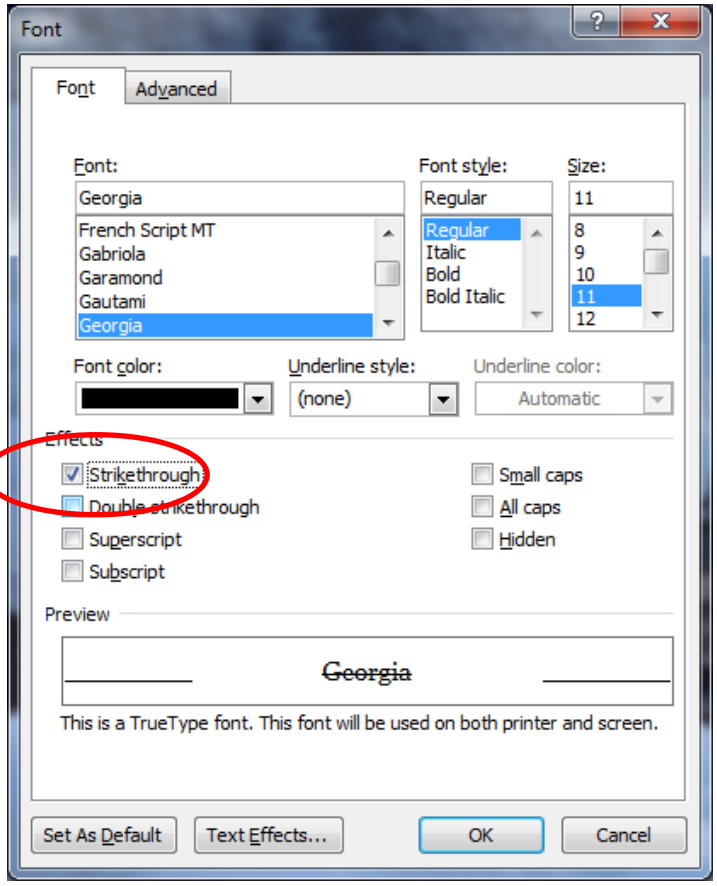
5.3 Incorporating Changes into Project Documentation

Once you have completed the change request, you will need to update affected project documentation.

Any of the documentation you will have dealt with so far in the course (project charter, task time and costing tables, etc.) are likely to be affected. Additionally, there are other documents such as the risk register, the project plan, the communication plan and other documents affected.

For the first change request:

1. Do not delete the changes being omitted. Instead, cross them out by formatting a strikethrough as shown in the box below.



2. Highlight the changes. For instance, if your project plan lists a figure of $10,000, but the change request is going to result in the change increasing to $25,000, then it should appear as:

   ~~$10,000~~ $25,000.

   This highlights what has been changed in the change request.

If there are two or more change requests:

1. Perform the same steps above, but for changes, highlight the changes from each change request in a different colour. Highlight both the additions and the crossings out so you can see which change request affected each figure.

   For example, if a figure started as $10,000 in the initial project plan, then changed to $25,000 as a result of change request 1, then changed back to $15,000 as a result of change request 2, given change request 1 is yellow and change request 2 is green, then it should appear as:

   ~~$10,000~~ ~~$25,000~~ $15,000

2. You will need to create a legend showing which colour represents which change request. You should do this in the page footer.

   e.g. Change request 1 Change request 2

Activity 25:

If you are working in a project oriented workplace, find out the organisation's change management process and summarise it below.

Activity 26:

Have a look at the conceptual plan for your small project from previous activities (you haven't developed any detailed plan yet, so use your imagination…). Now make a few changes to the plan. Document these changes in the change request template below.

Project Change Request Template

Project Name:							
Prepared by:							
Date:							
Type of change:							
	Scope		**Time**		**Cost**		**Quality**
	Communication		**Resources**		**Risk**		**Procurement**
Areas impacted:							
	Scope		**Time**		**Cost**		**Quality**
	Communication		**Resources**		**Risk**		**Procurement**
Changes to Supporting Detail? (explain**):**							
Description of Changes being made: **1.** *Risk Issues Prompting Changes:* *Corrective Action:*							

2. *Risk Issues Prompting Changes:* *Corrective Action:*
3. *Risk Issues Prompting Changes:* *Corrective Action:*
4. *Risk Issues Prompting Changes:* *Corrective Action:*
5. *Risk Issues Prompting Changes:* *Corrective Action:*
6. *Risk Issues Prompting Changes:* *Corrective Action:*

7. *Risk Issues Prompting Changes:* *Corrective Action:*		
8. *Risk Issues Prompting Changes:* *Corrective Action:*		
Stakeholders being notified:		
Name/Title:	**Signature:**	**Date:**
Name/Title:	**Signature:**	**Date:**

CONCLUSION

6.1 What have we learned?

Congratulations, you're reached the end of the first learner guide!

To summarise what you have learnt in this subject:

1. **Introduction to Project Management.**
   Introduction to projects, the project manager, the ten functions of project management, the roles and responsibilities of the project manager and project methodologies.

2. **The Project Life Cycle.**
   The five stages of the project lifecycle – scoping, planning, implementation, monitoring and closing. The breaking up of the implementation stage into phases.

3. **Project Integration.**
   Introduction to project integration, project stakeholders, project governance, project management information systems, the project charter, the project plan, and project closure.

4. **Project Communication.**
   Communication and the project life cycle, stakeholder analysis, communicating with project stakeholders, the communication requirements analysis and the communication plan.

5. **Project Change Management.**
   The change management process, change requests and procedures for incorporating changes into project documentation.

Please review any of the above areas that you are still not familiar with.

6.2 What next?

Now that you have completed the first learner guide, you are now ready to commence working through Workbook 1.

When you have completed Workbook 1, you may progress to the second learner guide which covers constraint management, the details of managing the scope, time and quality of a project.

Good luck with your first assessment!

End of Document