

Background and Aims

The need to provide operational infrastructure that effectively meets stakeholder needs and ensure it is maintained in an appropriate management fashion is vital. This unit will describe the concepts, theory and methods of infrastructure management. It will cover asset management principles (whole of life cycle analysis, infrastructure policy, risk management and strategic development), concepts and identification of asset performance requirements (community and stakeholder benefits and consultation, system performance and measures, level of service).

After completing this unit participants will:

- understand processes for developing and implementing effective infrastructure policy
- develop an understanding of the external risks and issues to be managed
- understand the process of establishing asset performance (service) levels and measures
- recognise and cope with complex and competing situations in the achievement of agreed infrastructure performance outcomes
- develop a systemic approach to managing infrastructure systems
- identify and consult appropriately with stakeholders and develop and manage infrastructure policy
- apply project management concepts and procedures within an asset management framework

Details of the structure of the unit are provided over the page

Enrolment Options

Enrol as a single unit or as part of either the Graduate Certificate in Infrastructure Engineering and Management, Postgraduate Diploma in Infrastructure Engineering and Management, or Master in Infrastructure Engineering and Management.

Off-Campus Study Mode

This unit is offered by Off-Campus (distance education) and there is no requirement for participants to attend lectures. Study guides, comprising a comprehensive set of course notes, are sent following enrolment. Further support is provided through a unit web site and via e-mail. The lecturer is available to answer questions and to provide assistance as necessary throughout the semester. Assistance can be arranged by email, facsimile, mail, telephone or through the discussion groups on the unit web site. Assessment comprises two assignments and an examination (worldwide exam venues are available).

Unit Co-ordinator



Timothy Provis is a senior asset management consultant and an infrastructure management expert. With 30 years experience in the Road Construction and Maintenance Industry, he offers the invaluable combination of both hands-on public asset construction experience and project management qualifications. With knowledge and experience gained from a grass roots background, Mr Provis works extensively with representatives at all levels of organisations responsible for the management of public infrastructure assets. Mr Provis has supervised major construction projects, played a key role in the successful management of road maintenance contracts around Australia and has the expertise to help maximise the use and management of all major public infrastructure assets.

Enrolment or General Course Enquiries:

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Structure

The unit is structured around 12 topics which are generally associated with one week of study

Topic	<i>After completing this topic, participants will:</i>
1. Introduction to Asset Management	<ul style="list-style-type: none"> • know the fundamental characteristics of Asset Management, • know the multi-disciplinary nature of Asset Management, and • understand why Asset Management may be useful.
2. The Operating Environment	<ul style="list-style-type: none"> • know the evolutionary nature of asset management, • know the major organisation components required for asset management, and • understand how organisation culture influences asset management.
3. A Business Approach to Asset Management	<ul style="list-style-type: none"> • be aware of the fundamentals of a business approach to asset management, • be aware of the inputs to asset management policy, and • be aware of the functional role of business processes as a management tool.
4. Introduction to the Elements of Asset Management	<ul style="list-style-type: none"> • know the key elements of an asset management business framework and how they interrelate. • understand the importance of asset management strategy development and the key processes involved. • know the steps to translate strategic plans into tactical plans. • be able to generate operational plans. • understand the feedback cycle in the asset management framework.
5. Asset Information	<ul style="list-style-type: none"> • understand the difference between data and information. • realise the relationship between information and management practices that govern the asset lifecycle. • know the difference between data types in an information hierarchy. • understand the basic elements of information management.
6. Interventions	<ul style="list-style-type: none"> • understand the role of interventions in asset management • know the difference between treatments and management of use interventions
7. Asset Management Objectives and Goals	<ul style="list-style-type: none"> • have a clear understanding of the role of performance measurement in asset management. • understand how performance standards can be established.
8. Asset and System Performance	<ul style="list-style-type: none"> • have a clear understanding of the role of performance measurement in asset management. • understand how performance standards can be established.
9. Strategy Development and Planning	<ul style="list-style-type: none"> • understand the purpose of an asset management strategy. • know what a typical asset management plan includes. • understand the steps involved and the information requirements in developing an asset management strategy.
10. Operations Planning	<ul style="list-style-type: none"> • understand the differences between strategic and operational plans and how they integrate. • understand the roles of the three levels of operational plans, tactical, annual and in-year.
11. Operations Management	<ul style="list-style-type: none"> • understand the role of operations management in the context of asset management activities. • Have a high level knowledge of the basic elements of operations management.
12. Asset Management Plans	<ul style="list-style-type: none"> • understand what information and level of detail is required in an asset management plan. • know a method for developing an asset management plan