Master of Infrastructure Management (BN88)

Year offered: 2010
Admissions: Yes
CRICOS code: 060807G
Course duration (full-time): 1 year
Course duration (part-time): 2 years
Domestic fees (indicative): 2010: Full fee tuition $8,750 (indicative) per semester
International Fees (indicative): 2010: $11,000 (indicative) per semester
Domestic Entry: February and July
International Entry: February and July
Total credit points: 96
Standard credit points per full-time semester: 48
Standard credit points per part-time semester: 24
Course coordinator: Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)
Discipline coordinator: Associate Professor Bambang Trigunarsyah (Course Leader) - Please refer course specific enquiries to Course Leader.
Campus: Gardens Point

Overview
This course addresses the main concepts and methodologies of infrastructure planning and management. It aims to advance and enhance your skills and understanding of the diverse types of infrastructure assets planning and management, including the environmental, social, institutional assessments, and economic and financial aspects of infrastructure management. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

Entry Requirements
A four-year full-time bachelor degree in a relevant discipline area; or an equivalent qualification, and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

Career Outcomes
Graduates may choose to become a project manager, asset manager, planner within an infrastructure organisation, or use the skills and knowledge gained to diversify their capabilities across a broader spectrum of construction disciplines. In particular, this course provides graduates with the skills and knowledge to become leaders and managers of infrastructure planning and management.

International Student Entry
International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Advanced Standing
Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

Further Information
Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: bee.enquiries@qut.com

Full-time Course structure - February Entry

<table>
<thead>
<tr>
<th>Year 1, Semester 1</th>
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<tbody>
<tr>
<td>BEN610 Project Management Principles</td>
</tr>
<tr>
<td>UDN572 Infrastructure Planning and Management</td>
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<tr>
<td>UDN574 Water Resource and Waste Management</td>
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<tr>
<td>AMN435 Communication, Negotiation and Leadership</td>
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<td>OR</td>
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<tr>
<td>GSN235 Communication, Negotiation and Leadership</td>
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<table>
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<tr>
<th>Year 1, Semester 2</th>
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<tbody>
<tr>
<td>BEN710 Sustainable Practice in Built Environment and Engineering</td>
</tr>
<tr>
<td>BEN910 Integrated Project</td>
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<tr>
<td>ENN530 Asset and Facility Management</td>
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<tr>
<td>UDN576 Transportation Infrastructure</td>
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</tbody>
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Full-time Course structure - Mid Year Entry

<table>
<thead>
<tr>
<th>Year 1, Semester 2</th>
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<tbody>
<tr>
<td>BEN710 Sustainable Practice in Built Environment and Engineering</td>
</tr>
<tr>
<td>ENN530 Asset and Facility Management</td>
</tr>
<tr>
<td>UDN576 Transportation Infrastructure</td>
</tr>
</tbody>
</table>
**AMN435** Communication, Negotiation and Leadership  
**GSN235** Communication, Negotiation and Leadership  
OR

**Year 2, Semester 1**  
**BEN610** Project Management Principles  
**BEN910** Integrated Project  
**UDN572** Infrastructure Planning and Management  
**UDN574** Water Resource and Waste Management

**UNIT SYNOPSES**

**AMN435 COMMUNICATION, NEGOTIATION AND LEADERSHIP**  
The unit serves as an introduction to effective leadership, communication, and negotiation processes as fundamental skills in today’s organisations. In particular, it focuses on the increasing importance of such skills for Engineering, Built Environment, Project management and other professionals to bridge cultural boundaries and enhance organisational performance in an increasingly globalised world.  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**BEN610 PROJECT MANAGEMENT PRINCIPLES**  
This unit serves as an introduction to project management as a fundamental skill for all postgraduate coursework students in built environment and engineering. It offers an overview of the framework, processes and key knowledge areas of project management.  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**BEN710 SUSTAINABLE PRACTICE IN BUILT ENVIRONMENT AND ENGINEERING**  
Sustainability has become a global agenda that impacts upon our work and everyday life. The unit will introduce principles, challenges and skills for dealing with a diversity of trans-disciplinary issues in sustainable development. By introducing critical sustainability theory and challenging best practices, this unit will prepare you for the impending changes that are necessary in all built environment and engineering disciplines.  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

**BEN910 INTEGRATED PROJECT**  
Problems that confront professionals are ill-defined and complex. The ability to define a problem, and collect and analyse relevant information using appropriate research methods is essential to professional practice. From a learning perspective, one of the most effective ways of
achieving this is to consolidate and extend previously gained skills through an activity that is relevant to industry and, where possible, is associated with a specific workplace.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**ENN530 ASSET AND FACILITY MANAGEMENT**

Professionals are often involved in the management of infrastructure including transportation, water, energy, buildings and telecommunications. In today's business environment, the efficient maintenance and management of these assets and associated risks is critical. The professionals need to know how to manage the whole of life cycle of assets; organise maintenance based on condition and reliability assessments; and create as well as implement effective asset management and maintenance plans so as to meet the business objectives of the organisation.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

**GSN235 COMMUNICATION, NEGOTIATION AND LEADERSHIP**

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1  
**Incompatible with:** Nil

**UDN572 INFRASTRUCTURE PLANNING AND MANAGEMENT**

It is essential for professionals practicing in the field of infrastructure to understand what is infrastructure, the basic principles of infrastructure planning, condition assessment, monitoring of the condition of the asset, maintenance strategies, funds requirement, life cycle costing, annual budgeting for maintenance and rehabilitation, and prioritising maintenance strategies for optimum return on investment.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**UDN574 WATER RESOURCE AND WASTE MANAGEMENT**

This unit will provide you with an in-depth understanding of the important issues in water and waste management within the urban environment and particularly the infrastructure management discipline. The management of water and waste are among the essential factors which influence the economic, social and environmental viability of urban areas. In most parts of the world including Australia, water is a limiting resource. The prudent management of the diverse water sources available, the provision of water ‘fit for purpose’ to meet human and ecosystem needs and the adoption of strategies for optimising of conveyance infrastructure is critical for the long-term sustainability of human settlements. The development and management of systems for the collection, transport and re-use and disposal of various waste streams forms an important activity to ensure the sustainability of urban areas.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1