

CPM6002 Sustainability in Construction Projects

Unit Description

This unit develops the students' ability to integrate sustainability into construction projects by exploring core concepts, regulatory requirements, and practical solutions. Students will examine how international and national sustainability regulations shape project decisions and assess climate change impacts on the built environment, as well as master essential skills including carbon footprinting, energy efficiency analysis, and sustainable material selection. These foundational competencies prepare students to identify and implement effective sustainability strategies.

The unit emphasises hands-on application across all project stages. Students will learn to evaluate sustainability measures for design and construction, apply water and waste management practices, and use green building rating systems and sustainability indicators to measure environmental performance. By combining regulatory knowledge with practical tools, students will be equipped to deliver projects that meet sustainability standards and drive positive environmental outcomes.

Credit Points	8 credit points
Duration	12 weeks (10 teaching weeks and 2 revision and assessment weeks)

Unit Learning Outcomes

On successful completion of this unit, students will be able to:

1. Explain core concepts of sustainability, sustainable development and sustainable construction.
2. Analyse international, national and local sustainability regulations affecting construction projects.
3. Evaluate causes and impacts of climate change within the built environment context.
4. Assess building energy usage and its effect on greenhouse gas emissions; propose energy-efficiency strategies.
5. Formulate practical environmental sustainability measures for design and construction stages.
6. Apply sustainability assessment tools and indicators, recognising their capabilities and limitations.