

# BPM301e LCC and Sustainable Design and Construction

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JAN

**E-Learning:** BLENDED - Learning is done MAINLY online using interactive study materials in Canvas. Students receive guidance and support from online instructors via discussion forums and emails. This is supplemented with SOME face-to-face sessions. If the course has an exam component, this will be administered on-campus.

## Synopsis:

BPM301 LCA and Sustainable Design and Construction provides an understanding in sustainable design and construction, the usefulness of life cycle analysis, illustrates the various renewable energy as well as its applications. It also covers the principles and techniques of sustainable design and construction. The course also develops students' knowledge in appraising a design or construction for its sustainability.

## Topics:

- The Triple Bottom Line – People, Planet and Profit/ Social, Environmental and Economical Sustainability
- Corporate Social Responsibility for Sustainable Design and Construction
- Sustainable Design
- Sustainable Construction
- Integration between Design and Construction
- Business Case for Green Buildings
- Carbon Foot-Print in Construction and Buildings
- Life Cycle Management
- Life Cycle Costing and Life Cycle Assessment
- LEEDS, Green Mark and Green Buildings
- Importance of Energy Efficiency
- Renewable Energy Systems in Buildings

## Learning Outcome:

- Demonstrate understanding of the concept of life-cycle-costing
- Discuss the principles and techniques of sustainable design and construction
- Appraise a design or construction for its sustainability
- Illustrate how buildings can be designed to be more energy efficient and therefore more environmentally sustainable
- Discuss the business case for green buildings
- Propose ways for a sustainable construction

## Assessment Strategies:

Continuous Assessment Component	Weightage (%)
PRE-CLASS QUIZ	2
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GROUP BASED ASSIGNMENT	10
TUTOR-MARKED ASSIGNMENT	14
<b>Sub-Total</b>	<b>30</b>

<b>Examinable Component</b>	<b>Weightage (%)</b>
Written Exam	70
<b>Sub-Total</b>	<b>70</b>

**Weightage Total** **100**