EM9108 Urban Planning & Environment

Learning Objective:
To gain an understanding how land use, transport, and environmental considerations can be integrated into urban planning to build a sustainable city.

Course Content:
Topics include urban planning practices, strategic approaches addressing urban land use, urban transportation, and urban environmental issues including sanitation, water supply, wastewater treatment, solid waste management, air emissions and noise control, as well as sustainability of the cities.

Course Outline:

<table>
<thead>
<tr>
<th>S/N</th>
<th>Topic</th>
</tr>
</thead>
</table>
| 1.  | Introduction to Urban Environment  
      Sustainable cities  
      Evolution of Cities |
| 2.  | Evolution of Cities and Planning  
      Historical context. Development issues in large cities. Problems of developing countries |
| 3.  | Planning Process and Development Control  
      The planning process, types of urban plans. Land use and development control. |
| 4.  | Planning Process and Development Control  
      Overseas planning practice. Urban planning in Singapore. |
| 5.  | Planning Methodology  
      Forecasting techniques for urban planning. Demographic and economic models. |
| 6.  | Planning Methodology  
      Plan formulation and evaluation, cost-benefit analysis. Energy issues in urban areas. |
| 7.  | Urban Transportation Planning  
      Land use and transport. Transportation planning process. |
| 8.  | Urban Environmental Planning  
| 9.  | Urban Environmental Planning  
      Wastewater treatment |
| 10. | Urban Environmental Planning  
      Water supply. Drainage. |
| 11. | Urban Environmental Planning  
      Solid waste collection, disposal, and reuse. |
12. **Urban Environmental Planning**  
Air emissions and noise control.  
Ecological design. Green buildings.

13. **Urban Environmental Planning**  
Environmental Impact Assessment.

**Learning Outcome:**  
Students should be familiar with the following: concept of sustainable city, urban planning, urban transportation, urban environmental planning and management.

**Textbooks:**  
Nil

**References:**  