



UNIVERSITI TEKNOLOGI MARA

BTP253: INFRASTRUCTURE PLANNING

Course Name (English)	INFRASTRUCTURE PLANNING APPROVED
Course Code	BTP253
MQF Credit	2
Course Description	This course will provide the necessary understanding of the importance of infrastructure planning in the approval of layout plans. Basic technical requirements will be taught to the students by all the relevant technical departments in the planning stage.
Transferable Skills	<p>Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts.</p> <p>Demonstrate practical and contemporary knowledge of relevant professional, ethical and legal frameworks.</p> <p>Demonstrate professional skills, knowledge and competencies.</p>
Teaching Methodologies	Lectures, Field Trip, Case Study, Tutorial, Reading Into Writing Task, Reading Activity, Discussion, Presentation
CLO	<p>CLO1 Ability to comprehend the engineering aspects of land development matters. These are such and levels of the site, grading of slope and the earthworks .</p> <p>CLO2 Ability to comprehend the technical departments involves in the planning approval process.</p> <p>CLO3 Ability to comprehend the procedures and the requirements of each of the technical departments to be considered in the process of approval of a development plan.</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. INTRODUCTION	
1.1) Groundwork preparation – site clearing, levels, access, land use, zoning 1.2) The technical departments involve	
2. ROAD DESIGN	
2.1) Hierarchy of Roads 2.2) Road Widths 2.3) Junctions and Roundabouts 2.4) Vertical and Horizontal Alignment 2.5) Cul-De-Sac and road constructions	
3. DRAINAGE SYSTEMS	
3.1) Hierarchy of drainage systems 3.2) Types of drains 3.3) Factors in designing a drainage system 3.4) Monsoon drain 3.5) Detention pond 3.6) Forecasting	
4. SEWERAGE SYSTEMS	
4.1) Type of sewerage systems in urban and rural areas 4.2) Factors in designing a sewerage system 4.3) Health factors 4.4) Forecasting	

5. POWER SUPPLY

- 5.1) Types of power supply
- 5.2) Transmission and distribution of electricity
- 5.3) Factors in locating sub station
- 5.4) Types of cables used
- 5.5) Forecasting

6. TELECOMMUNICATION SYSTEMS AND ICT

- 6.1) Telecommunication system in urban and rural areas
- 6.2) Distribution network E-Side and D-Side
- 6.3) Basic calculations and design factors
- 6.4) ICT
- 6.5) Forecasting

7. WASTE MANAGEMENT

- 7.1) Waste characteristics
- 7.2) Types of waste
- 7.3) Sources of waste generated
- 7.4) Principles of waste management system
- 7.5) Waste Disposal Systems
- 7.6) Separation and Recycling of waste
- 7.7) Recycling centre
- 7.8) Forecasting

8. WATER SUPPLY

- 8.1) Source of water supply for urban and rural areas
- 8.2) Forms of storage treatment and distribution system
- 8.3) Types of water supply
- 8.4) Management and Forecasting

Assessment Breakdown	%
Continuous Assessment	40.00%
Final Assessment	60.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Group Project	BASED ON INFRASTRUCTURE COMPONENT	20%	CLO1 , CLO2 , CLO3
	Individual Project	TERM PAPER	20%	CLO1 , CLO2 , CLO3

Reading List	Reference Book Resources	<ul style="list-style-type: none"> • Andrew, C. and Richard, F. 1991, <i>Services for Shelter</i>, Liverpool, University Press. • Charles, A. 1988, <i>Site Planning and Development</i>, , London, Preston • Jabatan Telekom Malaysia 1988, <i>Specification for Planning of Local , Lines Network</i>, Kuala Lumpur • TAG Technical Note No. 9 1983, <i>Handbook for District Sanitation Coordinator</i>, Washington, D. C., John Van Nostrand • Gulysni S. 2001, <i>Innovating with Infrastructure : The automobi</i>, Palgrave Mc Millam Press, New York • Thomas, W. 1984, <i>Water Distribution Systems, Water Practice Ma</i>, The Institution of Water Engineers and Scient • TRRL. 1991, <i>Towards Safer Roads in Developing Countries</i>,, A Guide for planners and Engineers, England. • United Nations Centre for Human settlements 1988, <i>Refuse Collection Vehicles for</i>, New York, Habitat • World Bank 2004, <i>World Development Report 2004: Making service</i>, Oxford University Press. Pp.1-18, 23-24. • Tchobanoglous, Theisen, Vigil 2003, <i>Integrated Solid Waste Management</i>, USA, McGrawHill
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	