

Summary of Teaching (Dr. Sam C. M. Hui)

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| 1. Introduction 1.1 Course Overview 1.2 Energy Basics 1.3 Energy Use in Buildings 1.4 Energy Efficiency | 6. Economic and Financial Analysis 6.1 Investment Appraisal 6.2 Financing Options 6.3 Building Economic Analysis 6.4 Whole Life Costing |
| 2. Energy Efficiency in Buildings (I) 2.1 Energy Policy and Codes 2.2 Current Situation in HK 2.3 Assessment of Performance 2.4 EU Directive on Energy Performance of Bldgs. 2.5 Implications for HK | 7. Energy Efficient Technologies 7.1 Building Envelope 7.2 HVAC 7.3 Hot Water 7.4 Lighting 7.5 Electrical Services 7.6 Lifts & Escalators 7.7 Building Management System |
| 3. Energy Efficiency in Buildings (II) 3.1 Basic Principles 3.2 Building Energy Design 3.3 Building Energy Management 3.4 Energy Performance Contracting | 8. Building Energy Standards and Codes 8.1 ASHRAE 90.1 8.2 Structure and Scope 8.3 Compliance Options 8.4 Energy Cost Budget Method 8.5 Performance Rating Method 8.6 Hong Kong BEC |
| 4. Energy Information Systems 4.1 Energy Information System 4.2 Data Analysis Techniques 4.3 Practical Applications | 9. Building Energy Simulation 9.1 Building Energy Simulation 9.2 Simulation Tools 9.3 Applying Simulation 9.4 Modelling Process 9.5 Simulation Skills |
| 5. Energy Auditing of Buildings 5.1 Basic Concepts 5.2 Types of Energy Audits 5.3 Planning of Energy Audits 5.4 Energy Audit Process 5.5 Energy Audit Report 5.6 Energy Management Opportunities 5.7 Implementation Issues | |

Concept Map:

