

SBS5225 HVACR I

<http://ibse.hk/SBS5225/>

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

<p>1. Introduction</p> <p>1.1 Background</p> <p>1.2 HVAC&R</p> <p>1.3 Air Conditioning</p> <p>1.4 Design of HVAC Systems</p> <p>2. Thermal Comfort</p> <p>2.1 What is Thermal Comfort?</p> <p>2.2 Thermal Environment and Heat Balance</p> <p>2.3 Comfort Equation and Prediction</p> <p>2.4 Influencing Factors</p> <p>2.5 Environmental Indices</p> <p>2.6 Local Thermal Discomfort</p> <p>3. Psychrometry</p> <p>3.1 Atmosphere and water vapour</p> <p>3.2 Psychrometric chart (theory)</p> <p>3.3 The psychrometric equation</p> <p>4. Air Conditioning Processes and Cycles</p> <p>4.1 Psychrometric Processes</p> <p>4.2 Psychrometric Analysis</p>	<p>5. Load Estimation</p> <p>5.1 Basic Concepts</p> <p>5.2 Outdoor Design Conditions</p> <p>5.3 Indoor Design Conditions</p> <p>5.4 Cooling Load Components</p> <p>5.5 Cooling Load Principles</p> <p>5.6 Cooling Coil Load</p> <p>5.7 Heating Load</p> <p>5.8 Software Applications</p> <p>6. Energy Calculations</p> <p>6.1 Objectives</p> <p>6.2 Calculation Methodology</p> <p>6.3 Energy Calculation Methods</p> <p>6.4 Building Energy Simulation</p> <p>6.5 Examples</p> <p style="margin-left: 20px;">- Energy-10, VisualDOE, MIT Design Advisor</p>
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Concept Map:

