CA357

**Human Cognition**

**Attention** - Focused, Divided

Designing for Attention - Structure, Concise & Comprehensible, Spatial, Colour, Alerts

**Visual Perception**

The Human Eye -

Rods & Cones, Optic Nerve, Cornea, Lens, Iris, Retina, Photoreceptors

Size & Depth - Visual angle, cues given by size/height, familiarity

Brightness - Luminance, contrast

Colour - Hue, Intensity, Saturation

Gestalt Principles

1. Law of Proximity
2. Law of Pragnanz
3. Law of Continuation
4. Law of Closure
5. Law of Similarity

**Memory**

Sensory Buffers - Visual, Iconic, Haptic

Short-Term Memory - Rapid Access and Rapid Decay

Long-Term Memory - Repository(Slow Access and Slow Memory)

Episodic/Semantic

User Requirements Gathering

Universal Design - Design and composition for age, size, ability, disability

User Capabilities - Vision, Hearing, Thinking, Communication, Locomotion, Dexterity

Requirements Gathering

Observation - Ethnography, Tacit Info, Strategies/Workarounds/Frustrations

Interviews - Forum, Structure/Unstructured

Questionnaires - Specifics, Qualitative/Quantitative data

Focus Group - Gain consensus among group of users

Diary Studies - Long-term Info, Audio, Written, Video

Experience Sampling - Feedback at certain stages, Reflective

Cognitive Walkthrough -

Formalised way of imagining scenarios for user

Conducted by designers

Limitations

Based on assumptions of user interaction

Not fully accurate for predicting user paths

Task Analysis

What a user must do to achieve the system goal

Goal - what users wants to achieve

Task - series of activities needed to achieve the goal

Action - simplified task which requires no problem solving

Hierarchical Task Analysis

Physical/Observable actions, Starts with user goal, divided into sub tasks.

Limitations