

**Credit Unit System:
Information on Courses**

1. **Course Title** (*English*): Philosophy and Psychology of cognition

2. **Course Code:** SM3127

3. **Course Aims & Objectives:**

Many artists have addressed questions of visual perception and cognition; this course aims to introduce art students to the basic problems and concepts in the philosophy of knowledge and the psychology of cognition. Attention will also be paid to the social and cultural aspects of cognition, particularly the function of cognitive frames in our everyday interactions. Lectures and workshops will be tailored specifically to assist visual and performance artists to highlight visual perception and cognition.

Students will begin by considering fundamental issues about the perception of figure and ground, volume and space, size and form constancy, gestalt grouping, visual illusions, and dimensional color. Philosophical issues, such as the debate between empiricists and cognitivists, and the debate between “naive realists” and “representative realists”, will be introduced in the context of these psychological topics. The ecological theory of perception developed by J. J. Gibson, and the role of the whole body in cognition (“embodied cognition”) will also be introduced and debated.

Students will also consider the various forms of knowledge representation, paying particular attention to the role of cognitive “frames”. The sociological analysis of cognitive frames in daily contexts will also be considered. Philosophical debates about the nature of mind, particularly about the topic of computationalism, will figure prominently throughout this discussion. Issues concerning the brain will be briefly mentioned.

Upon completion of this course, students will be able to describe and think critically about the fundamental presuppositions of cognitive science. They will be able to debate these issues with one another, and to relate these topics to the development of new media technologies. Finally, they will also be able to address these questions in their own artwork. Examples of how artists have addressed cognitive topics will be introduced in every lecture. The guiding assumption of this course is that a strong understanding of cognitive theory will help students acquire a better understanding of how artworks engage with the user.

4. **Units:** 3

5. **Level:** B

6. **Keyword Syllabus:**

Visual perception; gestalt principles; visual illusions; perceptual ambiguity; size and shape constancy; form and order; depth perception; ecological optics; embodied

cognition; knowledge representation; computationalism and connectionism; philosophy of mind; frame analysis (Erving Goffman).

7. **Teaching pattern:**

Duration of course: 1 semester

Suggested lecture/tutorial/laboratory mix: 3 hours combining lecture and workshop.

8. **Assessment pattern:**

100% Coursework

Grading pattern: Standard (A+AA-...F)

9. **Pre-requisites:** *(please quote course code & title)*

10. **Pre-cursor:** *(please quote course code & title)*

11. **Equivalent Courses:** *(please quote course code & title)*

12. **Key Readings**

Cummins, Robert and Cummins, Denise Dellarosa. Minds, brains, and computers : the foundations of cognitive science : an anthology (Malden, Mass. : Blackwell Publishers, Inc., 2000).

Erneling, Christina and Johnson, David (eds). The future of the cognitive revolution (New York : Oxford University Press, 1997).

Gibson, James J. The ecological approach to visual perception (Hillsdale, N.J. : L. Erlbaum Associates, 1986).

Gombrich, E. H. Art and illusion : a study in the psychology of pictorial representation (London : Phaidon, 1977).

Guttenplan, Samuel. Mind's Landscape: an introduction to the philosophy of mind (Malden, Mass: Blackwell Publishers, 2000).

Harré, Rom. Cognitive science : a philosophical introduction (London : SAGE, 2002.)

Kanizsa, Gaetano. Organization in vision : essays on gestalt perception (New York : Praeger, 1979).

Levitin, Daniel. Foundations of cognitive psychology : core readings (Cambridge, Mass. : MIT Press, 2002).

Markman, Arthur. Knowledge Representation (Mahwah: Erlbaum, 1999).

Morton, Peter (ed.). A Historical introduction to the Philosophy of mind (Peterborough: Broadview Press, 1997).

Shanken, Edward (ed.) Telematic embrace : visionary theories of art, technology, and consciousness (Berkeley, Calif. : University of California Press, 2003).

Solso, Robert. Cognition and the Visual Arts (Cambridge: MIT Press, 1994).

Thau, Michael. Consciousness and Cognition (New York: Oxford University Press, 2002).

Returned by:

Name: Dr. Hector Rodriguez

Department: School of Creative Media

Extension: _____

Date: June 27, 2005