



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Psychophysics and Perception

2324-1-F9201P006

Aims

The course will introduce the notion of measurement in psychology and the main psychophysical techniques used in experimental psychology. Issues relating to the psychology of perception will then be addressed with particular attention to visual phenomena.

Contents

First part

- Elements of psychometrics
- Basic notions of psychophysics

Second part

- formation of perceptual units
- The role of illusions in experimental psychology
- Main theories
- Analyses of perceptual phenomena and processes

Detailed program

The course is divided into two parts.

Part I:

- The concepts of measure and measurement
- Data and measurement scales
- Psychophysics: basic notions
- Psychophysical methods for experimental research
- Let's create an experiment, step by step

Part II:

- Why psychology of perception?
- The concepts of *reality* and *illusion*
- Perceptual theories
- Segmentation of the visual field into meaningful units
- Amodal completion and anomalous figures
- A stimulus for two percepts: homochromatic figures and phenomenal transparency
- Colors and black & white
- The third dimension
- Light
- And yet it moves: motion perception

Prerequisites

None

Teaching form

Frontal lesson, discussions, and exercises.

Textbook and teaching resource

- Slides from the lessons
- Journal papers that will be made available on the course's e-learning page
- Gaetano Kanizsa (1979). *Organization in vision*, Praeger. (The book may appear out of date, but it presents main phenomena in a problematic key, and not as pre-packaged solutions to perceptual issues still widely debated)

For those wishing to learn more about psychophysics:

G.A. Gescheider (1997). *Psychophysics. The Fundamentals*, London: Lawrence Erlbaum. The book is available in ebook format at the university library.

Semester

Primo semestre

Assessment method

The student can choose between two assessment methods:

A) **Oral interview** concerning the entire programme.

B) **Project examination** consisting of the following parts:

1. Journal club: Classroom Presentation of a journal paper about a perceptual phenomenon, freely chosen by the student;
2. the design of an experiment (abstract, brief introduction, participants, psychophysical method, type of data). Note that the chosen phenomenon for part b must be different from that chosen for part the Journal Club activity.
3. oral interview mainly concerning parts a and b.

Office hours

Day and modality of student reception will be communicated at the beginning of the course.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY | REDUCED INEQUALITIES
