PSYCHOLOGY OF PERCEPTION - 800152

Academic Year 2018-19

COURSE INFORMATION

Undergraduate Studies: 0812 – Degree in Psychology (Studies Plan 2009-10)
Type: Compulsory
ECTS: 6.0
Module: Compulsory psychological training
Area: Psychological processes
Year: Second
Semester: 1

INSTRUCTOR INFORMATION

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SYNOPSIS

COMPETENCIES

General competencies

GC2: Know and understand the basic laws of the different psychological processes.

GC14: Prepare oral and written psychological reports in different areas of activity.

Transversal competencies

TC1: Analysis and synthesis.

TC2: Preparation and defence of properly reasoned arguments.

TC5: Looking for information and data interpretation on social, scientific and ethical topics related to the field of Psychology.

TC7: Critical thinking and self- analysis.

TC9: Communication skills, learning how to communicate ideas to both, professional and non-professional audiences.

Specific competencies

SC4: Be able to describe and measure variables (personality, intelligence and other aptitudes, attitudes, etc.) and cognitive, emotional, psychobiological and behavioural processes.

SC5: Be able to identify differences, problems and needs.

TEACHING ACTIVITIES

. Lectures
. Practicals
. Reports
. Presentations
. Lab Work (optional)

ECTs break-down

TEACHING ACTIVITIES	Hours	% of total credits
Class sessions	60	40%
Tutorials	5	3.4% aprox.
Students' work (class assignments and time of study)	80	53% aprox.
Assessment activities	5	3.6% aprox.

BRIEF DESCRIPTION:

This course constitutes a general but informative, advanced introduction to perceptual processes within a psychological framework. Even though the contents are introductory they are also operational so that students will gain not only a know-what but also a know-how background. The course is framed in the realm of Experimental Psychology and, therefore, relies heavily on strong theoretical models, well-grounded empirical data and sophisticated mathematical modelling (even though students will only be exposed to a small glimpse of these all).

The student will first find a general introduction to perception (lesson 1) which provides the general conceptual background. After that, lesson 2 (Psychophysics) and 3 (Stimulus Description and Linear Systems) offer the student the required methodological tools. Finally lessons 4 to 9 cover the different perceptual processes. Although perception of acoustic stimuli is covered in more detail (lessons 4 to 7), visual processing and other perceptual modalities are also studied (lessons 8 and 9).

PRE-REQUISITES

There are no special administrative prerequisites other than being enrolled in the course. However, it is recommended that students feel familiar with the following mathematical topics:

1. Basic operations with real numbers.

2. Linear and quadratic equations in one unknown and simultaneous linear equations in two unknowns.

3. Functions and graphs. Elementary functions (linear, power, polynomial, exponential, logarithmic) and circular functions (sine, cosine, tangent, cotangent). Operations on functions.

4. Elementary probability.

OBJECTIVES

At the end of the semester students should:

1. Use rigorously key concepts relevant to Psychology of Perception.

2. Use the experimental methodology typically employed in our field.

3. Describe stimuli and perceptual phenomena both phenomenologically and technically.

4. Analyse and interpret experimental data in their different forms of presentation (tables, graphs, equations) connecting them to the perceptual experiences of human beings.

5. Know the functional architecture of the different human sensory systems, and the main theories related to the perception of colour, form, texture, motion, loudness, pitch, space, speech and music.

6. Explain experimental data and sensory phenomena (both normal and pathologic) in terms of well-established perceptual theories.

TOPICS

Lesson 1. A general introduction to Psychology of Perception
Lesson 2. Psychophysics
Lesson 3. Stimulus Description and Linear Systems
Lesson 4. Psychophysical architecture of the auditory system
Lesson 5. Loudness perception, pitch perception and temporal resolution.
Lesson 6. Speech perception and music perception.
Lesson 7. Auditory Space and object perception
Lesson 8. Visual perception
Lesson 9. The other senses

Practicals

1. Demonstrations of perceptual phenomena
2. Physical description and filtering of sounds.
3. Signal Detection theory: calculating sensitivity and response bias indexes.
4. Experimental estimation of the parameters of Steven´s Law for loudness perception.
5. Estimation and interpretation of the audibility curve.
6. Masking and critical bands in hearing: estimations of critical bandwidths.
7. Categorical perception of speech sounds.
8. Critical bands and music perception.
9. Vowel synthesis and perception.

ASSESSMENT

Theory: The final will take place on February and will cover the topics of this course. It is NOT a multiple-choice exam. The exam will consist of problems and theoretical questions.
Practicals: To your grade in the practicals may contribute the following items:

a) Your grade in the part of the exam concerning the practicals
b) Your grade in the short reports (about the practicals)
c) Your grade in class participation
d) Your grade in the presentations
e) Your grade in the short home-work assignments

Evaluation criteria
Theory: 75% of the final grade.

The course is passed by passing the final.

Wrong answers will be negatively marked. Non-sense answers are sufficient conditions to fail the exam (independently of the answers given to other questions). Even though specific points are given to each question (and students will know this beforehand) the exam is assessed as a whole so that the teacher can get a general idea of the actual knowledge of each student.

Practical sessions: 25% of the final grade.

You must obtain at least 5 points (in a 10-point scale) in both Theory and Practical sessions in order to pass the course.

RESOURCES

Textbooks
No individual textbook will be exclusively used in the course. The following books provide adequate views on the general topics of the course:

Blake, R. and Sekuler, R. (2006). (5ª ed). Perception. New York: McGraw Hill.
Coren, S., Ward, L.M. and Enns, J.T. (1999) (5ª ed.). Sensation and Perception. Ft Worth, TX.: Harcout Brace College Publishers
Goldstein, E.B. (2009). (8ª ed.) Sensation and Perception. Belmont, CA: Wadsworth.
Mather, G. (2006). Foundations of Perception. East Sussex: Psychology Press.

Basic references

See Syllabus provided in class.

Supplementary references/ material

See Syllabus provided in class.

Other resources

See Syllabus provided in class.