

**DEREE COLLEGE SYLLABUS FOR:**  
**PS 3437 PERCEPTION - LEVEL 5**  
(Revised Fall 2015)

**3/0/3**  
**UK CREDITS: 15**

**PREREQUISITES:** PS 1000 Psychology as a Natural Science  
PS 1001 Psychology as a Social Science  
PS 2147 Analysis of Behavioral Data – Level 4  
PS 3230 Biopsychology - Level 5

**CATALOG DESCRIPTION:** An introduction to sensory systems and perceptual processes. Discussion of the anatomy and physiology of the sense organs, emphasizing the relationship between the physical stimulus and the neural response that it elicits.

**RATIONALE:** This course introduces the student to perceptual phenomena and shows how we construct a conception of physical reality from sensory experience, particularly sight and hearing, smell and taste. It provides a solid foundation for students interested in pursuing graduate studies.

**LEARNING OUTCOMES:** As a result of taking this course, the student should be able to:

1. Identify the means by which information conveyed by light is coded and represented in the nervous system.
2. Demonstrate detailed understanding of the Psycho-physical methods.
3. Discuss the problems concerning the perception of Objects and Events in space.
4. Demonstrate detailed knowledge of the issue of Attention in perceiving; the colour perception and depth perception.
5. Analyze and distinguish the major parts of the auditory system.
6. Analyze and distinguish the physiology of the Taste and Smell.

**METHOD OF TEACHING AND LEARNING:**

In congruence with the teaching and learning strategy of the college, the following tools are used:

- Classes consist of lectures and class discussions.
- Office hours
- Use of Blackboard site

**ASSESSMENT:**

In-class, 1 hour, “diagnostic” test ( <b>formative</b> )	0%	Short answer questions (4 out of 6)
In-class midterm examination (1hour) ( <b>summative</b> )	40%	Short Essay questions (choice: 3out of 5)
In-class final examination (2 hours) ( <b>summative</b> )	60%	Essay questions (choice: 3 out of 5)

The formative test aims to prepare the students for the final examination.  
The midterm examination tests Learning Outcomes 1 and 2 and 3.  
The final examination tests Learning Outcomes 2, 4, 5 and 6.

**READING  
LIST:**

**1. Required material:**

Goldstein, Bruce E. Sensation and Perception. Wadsworth, latest edition.

**2. Further reading:**

Dutta, A., Campbell, K. C., & Proctor, R. W. (1994). Psychophysics and Signal Detection Theory. In Workbook for Proctor and Van Zandt Human Factors in Simple and Complex Systems, Boston: Allyn and Bacon, pp. 19-24.

Stevens, S. S. (1961). To honor Fechner and repeal his law. *Science*, 133, 80-86.

Deutsch, D. (2002). The puzzle of absolute pitch. *Current Directions in Psychological Science*, 11(6), 200-204.

Poggio, T. (1990). Vision by man and machine. In I. Rock (Ed.) The perceptual world. New York: Freeman and Co. (pp. 81-96).

Hubel, D. H. and Wiesel, T. N. (1990). Brain mechanisms of vision. In I. Rock (Ed.) The perceptual world. New York: Freeman and Co. (pp. 3-24)

Hubel, D. H. and Wiesel, T. N. (1965). Receptive fields and functional architecture in two non-striate visual areas of the cat. *Journal of Neurophysiology*, 28, 229-289.

Treisman, A. & Gelade, G. (1980). A feature-integration theory of attention. *Cognitive Psychology*, 12, 97-136.

Supplemental journal articles in current issues of Perception will be posted on the Blackboard.

**RECOMMENDED  
MATERIAL:**

Journal of Experimental Psychology: Human Perception and Performance  
Journal of Physiology  
Science  
Journal of Neuroscience

**WWW  
RESOURCES:**

American Psychological Association  
[www.apa.org](http://www.apa.org)  
British Psychological Society  
[www.bps.org](http://www.bps.org)  
Wadsworth Higher Education Learning  
[www.wadsworth.com](http://www.wadsworth.com)  
[www.cengage.com/psychology/goldstein](http://www.cengage.com/psychology/goldstein)

**INDICATIVE  
CONTENT:**

1. Introduction to Vision
2. The Visual Cortex and Beyond
3. Psychophysical Methods
4. Colour Perception
5. Object and Scene Perception
6. Visual Attention
7. Perceiving Depth and Size
8. Auditory Perception

## 9. Taste and Smell