

School of Humanities and Social Sciences / Psychology (English)

2024 - 2025 Academic Year

SENSATION and PERCEPTION

Syllabus

Course Description						
Name	Code	Semester	T+A Hour	Credit	ECTS	
SENSATION and PERCEPTION		PSY2262060	Spring Semester	3+0	3	5
Prerequisites Courses						
Recommended Elective Courses						
Language of Instruction	English					
Course Level	First Cycle (Bachelor's Degree)					
Course Type	Required					
Course Coordinator	Prof.Dr. Gökhan MALKOÇ					
Name of Lecturer(s)	Prof.Dr. Gökhan MALKOÇ					
Assistant(s)						
Aim	How do we see color? How is it that we can locate a bird chirping in a tree without seeing it? Why do moving objects capture our attention so readily? If a tree falls in the forest, and no one is around to hear it, does it make a sound? Why are tastes and smells so often associated with emotions? Why and how do we experience pain? These questions have fascinated philosophers and scientists for millennia, and a recent explosion of knowledge beginning in the 1800s has made it possible to begin to understand how energy is transformed into experience by the nervous system. This 'explosion' was grounded in the then-recent development of inquiry into physics and biology. Physics helps us to understand our environment, and biology helps us to understand ourselves. The investigation of sensation and perception combines physics and biology so that we can understand how environmental phenomena, as perceived by our senses, influence our understanding of the world. This course examines how the human brain receives and processes information from our environment. This course explores the functioning of human sensory systems and how physical stimuli are transformed into signals that can be understood by the nervous system. Topics covered in the course include vision, audition, taste, smell, touch, and basic psychophysics.					
Course Content	This course contains; Introduction to Perception, The Beginnings of Perception, Neural Processing and Perception, Cortical Organization, Perceiving Objects and Scenes, Visual Attention, Taking Action, Perceiving Motion, Perceiving Color, Perceiving Depth and Size, Hearing, Auditory Localization and Organization, Speech Perception, The Cutaneous and Chemical Senses.					
Course Learning Outcomes			Teaching Methods	Assessment Methods		
1. Explain the history and methods used in the science of sensation and perception.			10, 16, 9	A		
2. List the structure of the major sensory systems.			10, 16, 9	A		
3. Explain the transduction and transmission processes for the major sensory systems.			10, 16, 9	A		
4. Explain how sensory information is perceived and processed.			10, 16, 9	A		
5. Discuss how perceptual information helps us in our lives.			10, 16, 9	A		
6. Explain additional applications of sensation and perception information.			10, 16, 9	A		
7. Discuss the changes to sensation and perception over the lifecycle.			10, 16, 9	A		
8. Summarize additional skills, methods, and details related to the course topic.			10, 16, 9	A		
9. Gain practice in developing research proposals and writing academic papers.			10, 16, 9	A		
10. Gain additional experience in the conduct of science via research participation or evaluating research papers.			10, 16, 9	A		
Teaching Methods	10: Discussion Method, 16: Question - Answer Technique, 9: Lecture Method					
Assessment Methods	A: Traditional Written Exam					
Lecture Schedule						
Sequence	Topics	Preliminary Preparation				
1	Introduction to Perception	Chapter 1				
2	The Beginnings of Perception	Chapter 2				
3	Neural Processing and Perception	Chapter 3				
4	Cortical Organization	Chapter 4				
5	Perceiving Objects and Scenes	Chapter 5				
6	Visual Attention	Chapter 6				
7	Taking Action	Chapter 7				
8	Perceiving Motion	Chapter 8				
9	Perceiving Color	Chapter 9				
10	Perceiving Depth and Size	Chapter 10				
11	Hearing	Chapter 11				
12	Auditory Localization and Organization	Chapter 12				
13	Speech Perception	Chapter 13				
14	The Cutaneous and Chemical Senses	Chapter 14 & 15				
Evaluation Methods		Weight(%)				
Midterm Exam		40				
General Exam		60				

Resources
Gravetter, F. J. & Wallnau, L. B. (2014). Essentials of Statistics for the Behavioral Sciences. Cengage (ISBN-13: 978-1-285-05634-0)