

**COGS 556 Visual Cognition
Spring 2015-2016**

Course description. The course covers sensory, perceptual, and cognitive processes related to vision from a mainly psychological viewpoint supported by neuroscientific and computational information where appropriate. Content includes discussion of theoretical approaches to vision and a survey of empirical research on main problems related to vision. Information on classic research will be supplemented by examination of contemporary research on central issues.

Time and place. Monday, 08.40-11.30, S-03

Instructor. Asst. Prof. Dr. Cengiz Acartürk

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Tel. 210-7704

Course website. <https://odtuclass.metu.edu.tr/>

Resources.

Palmer, S. E. (1999). *Vision Science: Photons to Phenomenology*. Boston, MA: MIT.

Hoffman, D. D. (1998). *Visual intelligence. How we create what we see*. New York - London: W. W. Norton & Company.

Holmqvist, K., Nyström, M., Andersson, R., Dewhurst, R., Halszka, J., & van de Weijer, J. (2011). *Eye tracking: A comprehensive guide to methods and measures*. OUP.

Liversedge, S., Gilchrist, I., & Everling, S. (2011). *The Oxford handbook of eye movements*. Oxford University Press.

Marr, D. (1982). *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. New York, NY: Freeman.

Tentative weekly schedule.

Class	TOPIC
26 Feb	Vision as a perceptual phenomenon
4 Mar	Visual system in humans and animals
11 Mar	Theoretical approaches I: Classical theories
18 Mar	Theoretical approaches II: Information Processing
25 Mar	Marr's theory of vision
1 April	Spatial Frequency Theory
8 April	Perception of Surfaces
15 April	Perception of Depth
22 April	Perception of Objects and Parts
29 April	Eye movements and attention
6 May	Eye movements, memory and imagery
13 May	Eye movement measures
20 May	Student presentations
27 May	Student presentations

Evaluation (tentative, to be decided upon discussion in the class)

Review Project (40%)

Term Project (50%)

Attendance and Participation (10%)

The course schedule, the course content and the grading schedule in this syllabus may be modified at any time by the course instructor. Such changes will be announced in class hours.

Please contact me if you need disability accommodations.

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