

Instructions for the course

# Perception

7.5 university credits

2 Sep – 28 Sep 2024

## **Course description**

The course provides basic knowledge of how our perception works, its possibilities and limitations. The course gives an overview of various scientific methods through which we can examine how our sensory impressions are created and interpreted. It also provides knowledge about the physical and biological foundations of perception; how the brain and sense organs enable our experience of the world as a coherent whole. The course also includes neuropsychology, which is natural because the science of perception has always been anchored in current knowledge of the nervous system.

The course provides a problem-oriented overview of research in the psychology of perception and neuropsychology; Why are some people hypersensitive to noise or smells? How does the brain react to emotional events? Can measurements of the nervous system reveal if someone is lying? Can the brain process visual impressions that we are not aware we have seen? How to test the sense of smell? How can damage to the nervous system lead to altered experiences of the outside world?

Identifying functional impairments of brain functions requires an understanding of how typical functionality varies. Training is given in both scientific writing and oral presentation techniques. In practical terms, the course will also give students the opportunity to carry out sensory experiments, as well as measure how their own nervous system is activated by sensory experiences.

## **Learning objectives of the course**

After completing the course, you are expected to be able to:

1. Describe how our sensory systems work.
2. Explain psychological phenomena of perception in terms of "bottom-up" and "top-down" processes, as well as describe different theories of perception.
3. Explain central concepts, theories and methods within the psychology of perception, as well as independently discuss and apply this knowledge.
4. Perform psychophysical and psychophysiological measurements and understand, interpret and present their results.
5. Discuss and problematize the psychology of perception's definitions of typical versus reduced functionality based on an awareness of normal variation and variables that co-vary with it.

## **Teaching methods**

The course consists of a number of lectures, laboratory experiments, and seminars. The lectures present and discuss the course literature. The experiments are carried out with the course participants as experimenters and test subjects. The experimental work is presented in a written scientific report and orally presented at a special mandatory seminar.

## **Examination**

The course is graded according to the seven-grade ECTS scale (A, B, C, D, E, Fx, F).

In general, it applies that:

### *A. Excellent*

The student can independently connect central concepts, theories and models. The student

independently argues and discusses relevant principles and research results in relation to the course literature. The student integrates relevant principles from both perception and neuropsychology into a nuanced picture of typical and impaired brain functions.

*B. Very good*

The student can independently account for differences and similarities between central concepts, theories and models and reason about the central concepts' relevance, shortcomings and validity.

*C. Good*

The student shows understanding and can independently explain differences between central concepts, theories and models and applies central concepts to own examples.

*D. Satisfactory*

The student can explain given central concepts, theories and models in an independent way.

*E. Adequate*

The student can define central concepts and explain the main features of relevant theories and models.

*For example Supplementation is required*

The student exhibits certain deficiencies in the understanding of the course material, which is shown in a lack of ability to explain central concepts, theories and models, and supplementation is therefore required for the expected study results to have been achieved.

*F. Inadequate*

The student shows major deficiencies in the understanding of the course material, which is shown in the inability to explain central concepts, theories and models, and the basis for assessment is therefore lacking.

**Specific to this course:**

Grading E-A is based entirely on the results of the written exam (learning objectives 1-3): A = 90% correct, B = 80% correct, C = 70% correct; D = 60% correct, E = 50% correct. For achieving at least E, approved laboratory reports (both written and oral presentation) and active participation in the mandatory elements (marked in the schedule) are also required. Completion for absence takes place in the form of a written submission task which is specified and assessed by the course manager in consultation with the relevant teacher.

**General information about plagiarism, cheating and unauthorized collaboration**

Part of your responsibility as a student at Stockholm University includes knowing the rules that exist for examinations. Detailed information is available both on the website of the Department of Psychology and Stockholm University ([www.su.se/regelboken](http://www.su.se/regelboken)). Teachers are obliged to report suspicions of cheating and plagiarism to the principal and the disciplinary committee. Plagiarism and cheating always become a disciplinary matter and may lead to suspension. An example of plagiarism is copying a text verbatim or almost verbatim (also applies to single sentences) and not indicating where this comes from. This also applies to texts you have written yourself before (self-plagiarism). Cheating includes, for example,

bringing unauthorized aids (e.g. mobile phone) on test occasions. Having study groups together is edifying and time-saving, but when it comes to exam assignments, you must be careful to work alone (unless otherwise clearly stated in the course instructions) to avoid the risk of it being considered unauthorized collaboration.

### **Course supervisor and contact details**

Course supervisor is Professor Maria Larsson  
e-mail: maria.larsson@psychology.su.se

#### **Teacher :**

Doctoral student Annika Andersson  
Dr Elisabet Borg  
Doctoral student William Fredborg  
Dr Malin Freidle,  
Professor Maria Larsson  
Dr Malina Szychowska  
Dr Ronald van den Berg  
Professor Stefan Wiens

#### **email:**

annika.h.andersson @su.se  
[eb@psychology.su.se](mailto:eb@psychology.su.se)  
william.fredborg@psychology.su.se  
malin.freidle@psychology.su.se  
marlar@psychology.su.se  
malina.szychowska@psychology.su.se  
ronald.van-den-berg@psychology.su.se  
sws@psychology.su.se

### **Course literature**

#### **Course book:**

Goldstein, EB, & Cacciamani , L, J. (2022). *Sensation and Perception (11th edition)*. Boston: Cengage Learning. [ISBN: 978-0-357-44647-8]

#### **Articles (available on Athena ):**

Borg, G. (2003). To train hard enough, so it feels good. *Swedish Sports Research* , 4, pp. 4-9  
Borg, G. (2013). Many symptom scales do not measure up. *The medical journal* , 110, pp. 2238-2241.  
Borg, E. (2018). So what's that on a scale from 1 to 10? *Proceedings of the 34th Annual Meeting of the International Society for Psychophysics*. Germany.