

**EXAMINATION FOR THE COURSE:  
NEVR3003 – Behavioural and Cognitive Neuroscience**

**Contact person during the examination: Tor Kirkesola**  
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**Examination date: 16 March 2012**  
**Examination time: 9 am. – 1 pm.**  
**ECTS-credits: 7.5**

**Supporting materials: Dictionary**

Standardized language dictionaries (e.g. Norwegian-English/English-Norwegian) can be used, but NOT specialty dictionaries such as medical dictionaries. The dictionaries will be inspected by the invigilator before the start of the examination.

**Language of examination: English**  
**Number of pages: 2 (including front page).**

**Examination results will be made available on Studentweb within the end of:  
11 April 2012.**

**NEVR3003** 2012 exam  
Friday 16.03.2012  
09.00-13.00 (4 hours)

All 8 assignments are to be answered. Dictionaries allowed (subject specific dictionaries not allowed). No digital aids allowed.

1. Describe key aspects of thalamic cellular organization and how this relates to thalamic function
2. Compare and contrast excitatory and inhibitory components of cortical processing
3. What are neural oscillations, and how may they contribute to neural processing?
4. How is movement represented in motor cortex?
5. Sharp wave ripples: where and when do they occur, and what is their proposed function?
6. What information about the environment is represented in the entorhinal cortex and is this information necessary for spatial representation in the hippocampus?
7. How do vasopressin and oxytocin regulate pair bonding in Prairie- and Meadow Voles?
8. How are visual inputs integrated into a single experience?