# 27-503-01 Brain and Language (Fall 2014-2015)

Dr. Michal Ben-Shachar

**Hours and location:**
Tuesday and Thursday 12:00-14:00
Gonda brain research center, Building 901, Room 101

**Class requirements:**
- Attendance (over 80% attendance is a necessary condition for taking the final exam)
- Active attendance (discuss papers) and class presentation (20%)
- Final exam (exam material includes the contents of the lectures and final list of required reading; 80%)

<table>
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<tr>
<th>Week</th>
<th>Tuesday</th>
<th>Thursday</th>
<th>Required reading</th>
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| Week 1: Oct 28, Oct 30 | Intro | Modularity, cognitive neuropsychology | 2001  
Hauser MD, Chomsky N, Fitch WT.  
Roth, 2002  
Heilman 2006 |
| Week 2: Nov 4, Nov 6 | Aphasia: Classical accounts | Functional neuroanatomy | 2002  
Nol, MRI/fMRI primer  
Musso et al., 2003 |
| Week 3: Nov 11, 13 | fMRI I | fMRI II | 1999  
Forster 1999  
Pinker and Ullman, 2002 |
| Week 4: Nov 18, 20 | Models of the mental lexicon | Lexical access | 2007  
Hillis, 2007  
Thompson et al 2007  
Shetreet et al 2007 |
| Week 5: Nov 25, 27 | Morphology | Lexical access in aphasia | 2004  
Devlin et al., PNAS 2004  
Gold and Rastle 2007  
Bick et al., JoCN 2009 |
| Week 6: Dec 2, 4 | Neuroimaging studies of morphology | Neuroimaging studies of verb argument structure | 1997  
Shapiro syntax tutorial 1997  
Musso et al., 2003  
Grodzinsky and Friederici, 2006 |
| Week 7: Dec 9, 11 | Syntax | Agrammatism | 2004  
Ben-Shachar et al., 2004 |
| Week 8: Dec 16, 18 | fMRI of syntactic processing | Online sentence processing | 1998  
Altmann 1998  
Hahne and Friederici, JoCN 1999 |
### Papers for class presentation:

#### Unique, prewired circuits for human language?


#### Lexical representations


#### Is there a brain system for morphology?

- Devlin, Jamison, Matthews and Laura M. Gonnerman 2004. Morphology and the internal structure of words. PNAS.


#### Sentence Processing


#### The Visual Word Form Area Debate


White matter pathways for reading

Language and thought

Supporting papers and reviews (not for student presentations):
- Altmann 1998. Ambiguity in sentence processing. TICS.
- Ben-Shachar, Dougherty and Wandell 2007. White matter pathways in reading. CONB.
- Noll. A Primer on MRI and Functional MRI.
- Pinker and Ullman 2002. The past and future of the past tense. TICS.