Prof. Ralf Klabunde
Ruhr-Universität Bochum
Sprachwissenschaftliches Institut

7-11 March, 9.45-13.00 every day (room to be announced)

An introduction to computational semantics
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This course provides an overview on issues and techniques used in the computation of meanings for expressions of a natural language (words, phrases and sentences). Although the course addresses central topics in computational linguistics, we will have a look at these issues from a non-computational linguistics perspective, i.e. we will discuss how well-known (formal) semantic analyses can be made available for the computation of meaning. Additionally, we will consider genuine computational aspects of semantic composition and semantic evaluation that do not reflect concepts established in linguistic semantics.

The topics are:
- "Meaning" and inference tasks in computational semantics
- Two paradigms: logic-based vs. usage-based semantics
- A crash course in predicate logic and the lambda calculus
- Appropriate programming languages for computational semantics - and all the rest
- The composition of meaning
- Underspecified representations
- Computational lexical semantics

References
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For this course I will, amongst others, use concepts presented in two introductory textbooks on computational semantics:

- Blackburn, Patrick & Bos, Johan. 2005. Representation and Inference for Natural Language. A First Course in Computational Semantics. Stanford: CSLI Publications.
- van Eijk, Jan & Unger, Christina. 2010. Computational Semantics with Functional Programming. Cambridge: Cambridge University Press.