

# Organisational Details

## Specification and Verification with Higher-Order Logic

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(Slides by Jens Brandt)

Software Technology Group  
Fachbereich Informatik  
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# Overview

## Contact

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## Dates, Time and Location

- 3C+3R (8 ECTS-LP)
- Tuesday, 15:30-17:00, room 34-420
- Thursday, 15:30-17:00, room 34-420

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## Course Webpage

- [softtech.informatik.uni-kl.de/twiki/bin/view/Homepage/SVHOL08](http://softtech.informatik.uni-kl.de/twiki/bin/view/Homepage/SVHOL08)

## Literature

- R. Harper. *Programming in Standard ML*. Carnegie Mellon University, 2004.
- T. Nipkow, L. C. Paulson and M. Wenzel. *Isabelle/HOL - A Proof Assistant for Higher-Order Logic*. Springer LNCS 2283, 2002

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## Course Outline

- Introduction to Standard ML
- Theorem Proving Fundamentals
- Theorem Prover Architecture and Working Principles
- Higher-Order Logic
- The HOL System (and other Theorem Provers)
- Specifying and Verifying with Higher-Order Logic
- Selected Theorem Proving Applications