

# Advanced Functional Programming

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Software Engineering Chair and Programming Systems Lab

This seminar course will study advanced techniques in functional programming and has three major goals: To learn the best techniques used by functional programmers, so you can use them in your own work. To learn how to read, summarize, and criticize papers so you can write better papers yourself. To get a feel for research questions in functional programming.

## Time and Place

We will meet every Tuesday during the semester from 4pm–5:30pm in Room 528, Building 45. However, the *first meeting* will be on Wednesday, October 19th. Updates for the schedule and other important informations are posted on the seminar's web page:

<http://www.st.cs.uni-sb.de/edu/seminare/2005/advanced-fp/>

## People

The seminar is organized by the following people; you can reach us collectively by sending email to [fp-seminar@st.cs.uni-sb.de](mailto:fp-seminar@st.cs.uni-sb.de).

Christian Lindig, office 326/45      Gert Smolka, office 514/45  
Jan Schwinghammer, office 519/45      Andreas Rossberg, office 524/45  
Ralph Debussmann, office 523/45

## Organization

The seminar is organized in two phases. During the first phase we will read and criticize papers *together*, typically one or two per week. This includes writing assignments and some programming exercises when appropriate. At each meeting we will discuss the papers we have read; this may include group work where we try to answer specific questions about a paper.

In the second phase each participant prepares a presentation (25 minutes, plus discussion) for one or two papers that we haven't read collectively but that are related to papers that we have read. This is accompanied by a short written presentation. Expect to work for the seminar one full day per week for 12 weeks.

All literature will be in English. For the language of discussion we are trying to find a consensus, either German or English. Individual assignments may be completed either in English or German.

## Credit Points and Grading

For successful participation you will receive a grade and 8 or 9 credit points, depending on your Prüfungsordnung. The seminar is a collaborative effort and

therefore attendance is mandatory. For your grade we will weight your writing assignments (50%), your paper (20%), and your presentation (30%). No part must be failed but for the writing assignments we will take only the 8 best out of 10 assignments – or a similar ratio – into account. Leaving the seminar after you signed up (see below) is equivalent to failure and will be reported as such.

## Writing Exercises

Typically we will ask you to summarize a paper in writing *in your own words* before we discuss it together. Such a summary should be about one page long<sup>1</sup> and contain the essence of the paper: problem, solution, contribution, evaluation, and relevance. You are welcome to add one or two paragraphs of your own opinion about the paper. Copying sentences verbatim from the paper will earn you a bad grade, writing in a foreign language a bonus.

While we ask you to write your own summary we encourage you to *read a paper together* with other participants and to discuss it prior to writing your summary. We will read, comment, and grade your summary; you will get it back before the next meeting.

## Final Presentations

Most likely, you will be busy with finals during the last week of the semester. We therefore plan to hold all final presentations after the finals and after the end of lectures.

## Signing Up

To formally sign up for seminar, send email to [fp-seminar@st.cs.uni-sb.de](mailto:fp-seminar@st.cs.uni-sb.de) with the following informations:

1. your first and last name,
2. your student ID (Matrikelnummer),
3. your course of study (Bachelor or Master, what field)
4. your semester (Fachsemester),
5. the topics of your Proseminar or other seminars,
6. any additional remarks that could be important for us.

We will ignore requests with incomplete informations; send your mail no later than **Thursady 2pm, October21**. If there is more interest than we have spots (about 12), we will select participants based on qualification and inform you about our decision not later than next Friday.

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<sup>1</sup>Hint: two-column documents are space-efficient.