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Teaching portfolio

1. Formal educational training

Completed study programs: Dipl. Inform., Dr. rer. nat., Junior Professorship equivalent

Participation in higher education courses and workshops: annual IB and GECCO workshops

Participation in higher education conferences: annual ISMB, ECCB conference

2. Administrative tasks relating to education

Participation in councils and boards related to study programmes: Member of Danish External Examiners board in Computer Science, Participation in several PhD committees, member of the board of management at the Center for Bioinformatics at Saarland University (organizing the BSc and MSc study program in Bioinformatics), member of the program design group for the MSc program in Computational BioMedicine at SDU

Tasks as head of studies and organizer of modules, courses, or other parts of a study program: Design of MSc study program in Computational BioMedicine at SDU, (from the scratch) organization of bioinformatics advanced courses at IMADA/SDU Administrative tasks relating to education outside the university: Press releases, national and international TV and newspaper contributions

3. Experience of study programs, supervision and examinations

Teaching and supervision tasks: see CV for complete list. Supervision of >10 PhD students and >40 BSc+MSc students in Computer Science and in Bioinformatics. Taught >50 ECTS in bioinformatics, systems biology, introduction to programming, databases, and hardware architecture classes.

Examination and external examiner tasks: Served in >5 PhD examination committees, Member of the Danish External Examiner board in Computer Science

4. Methods, materials and tools

Methods of teaching and assessment: Classic class-room lectures, exercises, lab and discussion groups, assessment through project assignments, written reports, oral as well as written exams

Supervision methods: Direct supervision in BSc/MSc/PhD projects (blackboard, weekly seminars for progress control, annual intermediate reports, weekly group meetings).

Analogue and digital teaching materials, including original productions: See teaching web site at http://www.baumbachlab.net - Non-digital teaching material: Hands-on experience with breath analysis technology and/or DNA sequencers at OUH, for instance.

5. Educational development and applied research into teaching at university, including educational awards:

Participation in educational development projects, specifying any allocated project funds: Not applicable.

My BSc, MSc and PhD students all contribute to teaching - and the BSc+MSc students directly contribute to research and publications of results.

Documentation of development projects in the form of reports and articles as well as posters and presentations at meetings and conferences: see my full CV. >100 publications, >20 posters at international conferences, participation at ESOF in Copenhagen or CEBIT in Hannover, for instance.

Educational (applied) research projects: >40 BSc+MSc students contributed to our research projects. >20 publications

with BSc and/or MSc students as co-authorsEducational research training: Regular meetings and hands-on experience with experimental technology, in addition: several student exchanges (with Imperial College, Max Planck Institute for Informatics, Newcastle University, Toronto University, Univ. of California at Berkeley, to name just some examples)

6. Reflections on your own teaching practice and future development including student evaluations

A summary of the main features of your previous teaching practice as well as thoughts on your own future development in relation to teaching responsibilities ahead: Consideration/integration of concrete student feedback. Regular meetings with departmental Professors to plan teaching content.

Reflections on how you have developed your teaching practice based on student evaluations and in interaction with students and colleagues: The students seem to be fine with the content and the work load. Most seem to be particularly happy about the opportunity to actually apply computer science methods to real-world (!) data - and to learn about methods that are likely to have an impact on other peoples' life (optimized medical decision-making, for instance). Some students seem to be scared off from this prospect (those, who prefer pure theoretical work - but this is a minority with a dedicated focus that seems incompatible to the rather applied bioinformatics research/teaching).

Other university teaching issues that you consider important: None.