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Teaching Portfolio

Formal educational education

Aside from a few courses there is no formal educational education

Educational administrative tasks

2006-2011 Ph.d. study leader for Naturvidenskabelige fakultet, SDU
2013-present Department Ph.D. committee
2015-present First year project coordinator

Experience in teaching, coaching and examination

I have been teaching at the university since 1988. First as a lecturer in introductory biochemistry, and since the mid 90's also in my own courses where I have been in charge of teaching, teaching material and exam. One of my first courses was Bioinformatics, which has since the mid 90'es been constantly evolving since and is currently being lectured as "BMB511 Bioinformatics I" in collaboration with Karin Hjernø. Alongside this, I have always had project students in the form of individual projects, bachelor and master students. I have thus trained 28 bachelor's, 38 master,s and 11 Ph.D. students.

Currently I teach Analytical Protein Chemistry (course both spring and autumn), Bioinformatics I in collaboration with Karin Hjernø (autumn) and first year project (spring).

I have been external examiner on both the course level (AU), Masters level (AU, KU) and PhD. level (AU, KU, DTU and abroad).

Methods, materials and tools

I have always supplied a good part of the teaching material myself. In the 90'es I started two courses, both based on the observation that almost no teaching was performed on protein chemistry, beyond the introductory part of biochemistry. One course Protein Structure was based on a book, supplemented with a few articles, while the other (Advanced protein chemistry) was based entirely on primary literature. For the current courses, bioinformatics is based on a book with a considerable amount of extra material, as the course for a large part is based on Internet based programs which are shifting. The analytical chemistry course is based entirely on an in-house written manual (100+ pages) with recommended reading of an additional book. The manual is updated each year, based on input/comments from students, technicians and the inclusion of new techniques added to the course.

University pedagogical research

None

Reflections on pedagogical praxis

In my own teaching I have never been fond of teaching for a large group, but have tried to keep classes to a size where it is possible to get contact to the individual student - even those on the back row. As a teacher you are always excited about the bright student who understands immediately and can produce excellent results with ease. On the other hand there are also the hardworking student who doesn't understand so quickly, but through hard work also produces outstanding results. As a teacher you have to recognize, plan your teaching and reward both types of students.

The most important aspect of teaching, aside from knowing your subject by heart, is enthusiasm. By showing the student that the subject is important to you, it is likely that the student derive the inspiration and encouragement which actuate their desire to learn. An added advantage is a good sense of humor. I believe that the best learning comes from a non-stressful situation. Students tend to learn more efficiently from an approachable teacher who sets up a comfortable environment for teaching. However, the humor has to be balanced against the seriousness of learning.

In my teaching I always put much emphasis on the basic concepts, and build on these to show the more advanced aspects of the particular science. In this process I always try to point backward to these basic concepts and show how the advanced parts can be deduced often from a very limited number of terms. In addition to the sound fundamentals, it is valuable to provide useful inter-disciplinary examples and historical context which make learning more interesting and motivates the students.

The most satisfying part of teaching is when you teach projects to individuals or small groups. Here the education often goes beyond the classroom, and the discussion goes on to fundamental concepts, future career options and personal problems and recommendation. Some of these students interactions evolve into useful and lifelong personal and professional contacts. The ultimate satisfaction as a teacher is to bring a student through to a successful exam, particularly if the student has problems in the learning process.