

## BM121 – Week 40

### Tuesday 4/10

- Introduction to the course.
- Biology primer.
- Pairwise sequence alignment using dynamic programming, Durbin et al. sections 2.1–2.4.

### Course information

**Homepage** The course has a homepage:

<http://www.imada.sdu.dk/~lenem/Teaching/BM121/>

**Literature** The textbook is

R. Durbin, S. Eddy, A. Krogh, G. Mitchison  
*Biological Sequence Analysis*.

Price in the Student Bookshop: 398 kr

Supplementary material will be handed out during the course.

#### **Background reading:**

If you are interested in knowing more about the biological background for the problems studied in the course, the following book is a good place to start.

Paul Berg, Maxine Singer

*Dealing with Genes. The Language of Heredity.*

It is placed on the "semester shelf" at the mathematical library at IMADA.

Most of the illustrations used in the first lesson are from this book.

Another interesting book is

Krane, Rayner

*Fundamental concepts of bioinformatics.*

This book is also placed on the "semester shelf".

**Weekly notes** The weekly notes are usually available on Wednesdays. They can be found through the course homepage.

**Mailing lists** The course has a mailing list. You can subscribe to the list at

<http://www.imada.sdu.dk/mailman/listinfo/bm121>

There is also a bioinformatics mailing list that you can subscribe to if you would like to be notified about bioinformatics related events:

<http://www.imada.sdu.dk/mailman/listinfo/bioinformatik>

(Both URLs can be accessed through the course homepage.)

**Schedule** The course schedule can be found at the course homepage

**Evaluation** To pass the course you must

- Do a small project in groups of 2–3 persons. You can implement one of the algorithms taught in the course, or you can do a literature study. In either case, you should write a report of 5–10 pages.
- Write a summary of two of the lectures. You must hand in your summary the day before the next lecture, so that I can comment on it and tell you if there is anything that should be changed. The final summary should be ready for handing out to the other students at the lecture one week after the lecture described in the summary.

More precisely: If you sign up for writing the summary of a Tuesday lecture you must hand in the summary no later than Thursday at 12. You can email me the summary, or you can leave a copy in my post box at the secretariat. In connection with the Friday lecture, I will give you comments. The final version must be handed in no later than Monday at 12. Likewise, if you write a summary of the Friday lecture, you must hand in the summary no later than Monday at 12 and the final version no later than Thursday at 12.