NORBIS

The national doctoral school in bioinformatics, biostatistics and systems biology

NORBIS

An introduction to sequence comparison and database search

Bergen, 16th-20th November 2015

Practical information

Time and place: November 16-20 2015, University of Bergen, Norway
Lecturers: Inge Jonassen, Cedric Notredame, Des Higgins
ECTS: 5

Venues

Lectures:	Seminarroom A at the Student Centre. Address: Parkveien 1 (map: 14)
Practicals:	Datalab 1, 1st floor of the Science building. Address: Allégaten 41 (map: 8)
Seminars:	Auditorium TM51 at VilVite. Adress: Thormøhlens gate 51 (map: 2)

Please allow for a five and ten minutes walk to get to the Science building and to VilVite after lunch, respectively. A campus map can be found here:
http://www.uib.no/info/english/visitors/mainmap.html

Agenda

Monday 16th November

10:00 – 12:30	**Pairwise comparisons in an evolutionary context** *Lecture (Seminarrom A, Student Centre)*
12:30 – 13:15	*LUNCH*
13:15 – 17:00	**Anonymous sequence analysis** *Practical (Datalab 1, Science building)*

Tuesday 17th November

09:00 – 12:00	**Introduction to dynamic programming** *Lecture (Seminarrom A, Student Centre)*
12:00 – 13:00	*LUNCH*
13:00 – 17:00	**Introduction to dynamic programming** *Practical (Datalab 1, Science building)*

Wednesday 18th November

09:00 – 12:00 **Database searches with BLAST**
Lecture (Seminarrom A, Student Centre)

12:00 – 13:00 *LUNCH*

13:00 – 17:00 **Database searches**
Practical (Datalab 1, Science building)

Thursday 19th November

09:00 – 12:00 **Multiple sequence alignments**
Lecture (Seminarrom A, Student Centre)

12:00 – 13:00 *LUNCH*

13:00 – 17:00 **Combining sequence and structure information**
Practical (Datalab 1, Science building)

Friday 20th November

09:00 – 11:00 **Written exam**
(*Seminarrom A, Student Centre)*

11:00 – 12:00 **Summing up section**
(*Seminarrom A, Student Centre)*

12:00 – 13:00 *LUNCH*

13:15 – 15:00 **Guest seminars** *(Auditorium TM51, VilVite)*

13:15 – 14:00 **Grabbing High Hanging Fruits From the Tree Of Life** by Cedric Notredame

14:15 – 15:00 **How to make and test really really big multiple protein sequence alignments** by Des Higgins

Recommended reading material

You are expected to are expected prepare well for the course.

1. General: Claverie and Notredame, Bioinformatics for Dummies, 2007, Wiley*
2. General: Lesk, Introduction to Bioinformatics
3. Algorithms: Durbin et al., Biological Sequence Analysis, 1999, Oxford Press **
4. Algorithms: Tisdall, Begining Perl for Bioinformatics, 2001, O'Reilley
5. Evolution: Patthy, Protein Evolution, 2007, Blackwell
6. Evolution: Graur and Li, Fundamentals of Molecular Evolution, 2000, Sinauer Associates

* Easily found online
** worth buying your own copy