

 UNIVERSITY OF SKÖVDE

BIOINFORMATICS MASTER'S PROGRAMME

2010-2011
August 2010




Bio1


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Who am I?

- Ph. D. Angelica Lindlöf
- Programme coordinator autumn 2010
- Education
 - Ph.D. Molecular biology, 2008, Göteborg University
 - M.Sc. Computer Science, 2002, University of Skövde
- Responsibilities
 - Research – 25%
 - Teaching – 65%
 - Study programme coordinator – 5%
 - Other administrative duties – 5%



Bio2

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Bio	Informatics
Biology = study life	Informatics = handling information
Understand the building-blocks of life	Computer models of different systems
How do cells work?	Simulate processes
What causes diseases?	Find relationships between data
How do proteins perform their function?	Compute and make prognoses

Bio3

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Bio Informatics

- Designing algorithms and implementing computer programs that can be used to
 - Model biological systems
 - Simulate biological processes
 - Find relationships in biological data
 - Make computations and prognoses in biological and medical contexts

BMS 4

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Bioinformatician's possible roles

- Expert user of bioinformatics software
- Implement/develop software
- Work together with programmers
- "Middle person" connecting biologists and programmers
- Research and development on methods and algorithms
- Research and development on methods for solving particular biological problems


BMS 5

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Sep-Oct	Bioinformatics tools and concepts, 7.5 cp	Bioinformatics analysis with Perl, 7.5 cp
Nov-Dec	Bioinformatics – algorithms, 7.5 cp	Gene expression analysis with R, 7.5 cp
Jan-Mar	Molecular markers for prognosis and diagnosis, 7.5 cp	Bioinformatics – research process, 7.5 cp
Apr-Jun	Dissertation project, 15 cp	


BMS 6


OUTLINE OF STUDY PROGRAMME




Sep-Oct	Bioinformatics tools and concepts <i>Exam</i>	Bioinformatics analysis with Perl <i>Exam</i>
Nov-Dec	Bioinformatics - algorithms <i>Exam</i>	Gene expression analysis with R <i>Exam</i>
Jan-Mar	Molecular markers for prognosis and diagnosis <i>Exam</i>	Bioinformatics – R&D <i>Exam</i>
Apr-Jun	Dissertation project <i>Defence</i>	

BAG 7

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- ### Important concepts
- "Programme" = study programme
 - Consists of a number of *courses*
 - "Course" = a short course on a specific subject
 - Need to register on each course in the programme
 - Registration autumn and spring
 - Most courses 7.5 cp
 - Termin/semester = 30 ECTS credit points
 - 60 cp in total for the study program
- BAG 8


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- ### Course registration
- Prerequisites fulfilled = you have the right to take the course
 - Prerequisites not fulfilled = the teacher responsible for the course decides to let you join or not – means you need to contact course responsible
- BAG 9

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Course examination

- Each time we give a course, we offer two chances to take the exam (usually with two months in between).
 - Sign up at least one week in advance at:
www.his.se/studentcentralen
<http://www.his.se/english/student/studentcentralen/>
- The teacher responsible for the exam will arrange:
 - one meeting prior to the exams – inform about exam questions etc.
 - one meeting after the exams – inform about grading and answer student questions about corrected exam
- Results are notified by email


ENK 10

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Course examination

- Usually a written individual exam
 - Usually 4-5 hours
 - Check with teacher beforehand if any aids are allowed
 - Bring pencil and eraser (paper provided)
 - Bring ID
 - Can't leave room in first 40 minutes
- Distance/flexible learning courses
 - Written home examination
 - Posted on the course's home site
 - Check with course responsible regarding details about practicalities


ENK 11

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Course examination

- You have a chance to inspect the marking and file a complaint (within a time limit)
- To file a complaint
 - Ask for a photocopy of the exam
 - Bring it to the teacher who graded it
 - If there is disagreement, discuss with the examiner
- Once you have signed and received the original, no more complaints can be filed


ENK 12

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Course grades

- You can ask at any time for a print-out of grades awarded so far (In Swedish or English)
 - Ask at the desk in the Dept of Student Affairs (Studentcentralen)
- For each finished course, you can apply for a course certificate
 - Printed on letterhead with university logotype (In both Swedish and English)
- Degree certificate issued on request after completion of the programme


Skö 13

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Dissertation project

- Can be done externally, but requires
 - Skövde supervisor monitoring progress
 - Presenting and defending thesis here
- Can be applied, but must extend current knowledge
 - Biological
 - Computational
- Write-up in article format

Skö 14

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Schedule for Bioinformatics – master programme

<http://lost.his.se/Schedule.asp?startdate=20100825&enddate=&program=BIIMA10h&st=Program>

95	Man	2010-08-30	10:15-12:00	Övrigt (OV)	P102	LING	Int.
	Tis	2010-08-31	10:15-12:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P106	OLSB	Lek. L1
			13:15-15:00	Bioinformatisk analys med Perl GIN (P) (IVN)	P106	ullb	Lek
96	Tis	2010-09-07	15:15-17:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P106	OLSB	Lek. L2
	Ons	2010-09-08	13:15-17:00	Bioinformatisk analys med Perl GIN (P) (IVN)	P105	ullb	Han, H1
	Tor	2010-09-09	13:15-17:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D1
97	Tis	2010-09-14	08:15-10:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P106	OLSB	Lek. L3
98	Man	2010-09-20	08:15-12:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D2
	Tis	2010-09-21	13:15-17:00	Bioinformatisk analys med Perl GIN (P) (IVN)	P105	ullb	Han, H2
	Ons	2010-09-22	13:15-15:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P102	OLSB	Lek. L4
	Tor	2010-09-23	13:15-17:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D3
	Fre	2010-09-24	13:15-15:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P102	OLSB	Lek. L5
40	Man	2010-10-04	08:15-12:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D4
	Ons	2010-10-06	13:15-15:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P106	OLSB	Lek. L6
	Tor	2010-10-07	08:15-12:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D5
			13:15-17:00	Bioinformatisk analys med Perl GIN (P) (IVN)	P105	ullb	Han, H3
41	Tor	2010-10-14	08:15-12:00	Bioinformatiska koncept och metoder AIF (P) (IVN)	P105	care_jurs	Dövn, D6
43	Man	2010-10-25	08:15-12:30	Bioinformatiska koncept och metoder AIF (P) (IVN)	-	OLSB	Tentamen

- Non-scheduled time = *self-study*
- Access to computer rooms and study rooms during evenings and weekends (by card)

Skö 15

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Scio – new educational platform at the University

- Almost all courses will be given via this platform
- Get access to it as soon as possible and try to learn how it functions!
- Login via:
<https://scio.his.se/portal>
- Activate and retrieve user account:
<http://www.his.se/english/student/support-and-service/it-service/user-account/retrieve-user-account/>


Skövde 16

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Other master's programmes

- Some courses taken together with other
 - Systems biology - master's programme
 - Master's programme at Örebro University
 - Biomedicine - master's programme

Skövde 17

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Contact information

angelica.lindlof@his.se
0500 – 44 83 49
Office in Portalen, 2nd floor to right

Either knock on the door or request a meeting by email

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Important check list!

- Register for courses
- Get computer account
- Get account to Scio
- Learn to use Neverlost (the schedule system)
- Learn to use Studentcentralen (various functions) www.his.se/studentcentralen
- Apply for security card
- Get library card

Skid 19

HÖGSKOLAN SKÖVDE
FORSKNINGS- OCH UTBILDNINGSKANSLIET

PROGRAMREGISTRERING


Registreringsdatum: Termin: HI 2004

PERSON- OCH ADRESSUPPGIFTER

Personnummer: 710101-P121
Efternamn, förnamn: Andersson, John

Civic registration number
Family name, Given name


AH	CONNECTIONISM AND ARTIFICIAL INTELLIGENCE, Advanced level	5	DVD122	200435
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Datum: 23 Oct. 2004 Underskrift: 

Initials
Date, Signature
Show receipt of payment of student union fee (otherwise registration not completed)

Skid 20

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3: The campus canteen
D: The library.
E: Computer science. Lecture rooms and computer rooms.
E: Student service/Master's admission
G: Natural sciences. Lecture rooms and wet labs.
4: Student pub/restaurant/disco/etc.

Skid 21

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Research group

- Research leader
 - Associate professor Björn Olsson
- Post-docs/Ph.D.
 - Ph.D. Molecular Biology Angelica Lindlöf
 - Ph.D. Computer Science Zelmina Lubovac (also Deputy Head of Department)


Skövde 22

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Research group

- Ph.D. students
 - Jane Synnergren
Collaboration with Cellartis AB, Gothenburg
 - Jessica Carlsson
Collaboration with Tumour biology research group and Örebro University Hospital
 - Sanja Jurcevic
Collaboration with Tumour biology research group and Örebro University Hospital
 - Benjamin Ulfenborg
Collaboration with Tumour biology research group and Örebro University Hospital

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Questions?

Skövde 24
