Grundlagen, Protein Struktur

- who am I ?
- die Sprache .. verhandelbar
- Zettel
  - **www.bioinformatics.uni-hamburg.de/research/BM/torda/lehre.html**
- + stine
- all handouts in web and Stine

Research group

- protein structure and design
- RNA structure and design
- numerical simulations - phylogeny
- other numerical simulations

Administration

People

- Andrew Torda 1. Stock / 105
  sekr (Annette Schade) 42838 7330
  schade@zbh.uni-hamburg.de
- Björn Hansen

Vorlesungen	Mo	16:15 – 17:45
Übungen / tutorials / revision	Mo	14:15 – 15:45

Aims

This semester

- protein structure - how it is determined
- analysis

Next semester

- more on simulation
  - proteins
  - evolution (non-Darwinist)

Lectures

1	14. Okt.	Intro to protein structure
2	21. Okt.	Intro to protein structure
3	28. Okt.	NMR and distance geometry
4	4. Nov.	NMR and distance geometry
5	11. Nov.	Protein motions
6	18. Nov.	Protein stability
7	25. Nov.	X-ray
8	2. Dez.	X-ray
9	9. Dez.	Representation, discretization
10	16. Dez.	Simulation approaches
11	6. Jan.	Analysis and comparison
12	13. Jan.	Analysis and comparison
13	20. Jan.	Modelling
14	27. Jan.	Modelling

Course structure

Übungen

- mostly like a chemistry Übung - assignment, work in computer room, 2 Woche / Übung
- some tutorials / revision
- start next week

Textbooks

- any biochemistry book (Stryer, Lehninger, Biochemistry)
  - expensive
- Leach, Andrew, “Molecular Modelling” very good for next semester
- Folien should be sufficient

Exams

- schriftliche Klausur
- any facts that are mentioned in these lectures
- concepts from Übungen
- simple knowledge
  - what are the kinds of amino acids ?
  - how reliable are NMR structures ?
  - what are the kinds of disorder in an X-ray structure ?
  - …

Summer semester

  - more difficult
  - more maths, stat mech,

Klausuren

Laut Stine

- 7 Feb 2012 9:00
- 26 März 2012 9:00

- 90 Minuten

- Änderungen mehr als möglich

Protein Structure

- first two weeks
  - always exam questions

- not for biochemists/chemists/MLS/…

Protein structure and other topics

who knows

- chemistry ?
- programming ?
- stat mech ?