

ECS 289A - Modeling Gene Regulation, WQ 2003

Professor: Vladimir Filkov

Schedule of Lectures

January

- 1/6 (1) Intro, Syllabus Reading, Bio-Concepts
1/8 (2) Biotechnologies
- 1/13 (3) Computer Science for Biologists
1/15 (4) Microarray Data Analysis: Normalization, and Differential Expression
- 1/20 (*) MLK day, no class
1/22 (5) Microarray Data Analysis: Classification
1/24 (6) Microarray Data Analysis: Clustering (Monday class)
- 1/27 (7) Modeling in Biology
1/29 (8) Modeling Gene Regulation and Gene Networks

February

- 2/3 (9) Gene Networks I: Static Graph, Weight Matrix (Linear) Models
2/5 (10) Gene Networks II: Boolean Networks Models
- 2/10 (11) Gene Networks III: Bayesian Networks Models, Quiz
2/12 (12) Gene Networks IV: Bayesian Networks continued
- 2/17 (*) President's day, no class
2/19 (13) Continuous Models of Gene Regulation
- 2/24 (14) Continuous Models continued, Review
2/26 (15) Cis-region Analysis: Motif Finding

March

- 3/3 (16) Data Integration I, Review
3/5 (17) Data Integration II, Review
- 3/10 (18) Towards Realistic Models of Gene Regulation, Review
3/12 (19) Recap and Future of Gene Regulation Modeling, Final Exam Questions

Important Dates

- Final Exam Out: **3/11/03 (if take-home, tentative)**
Project Report and Presentation Due Date: **3/20/03 (tentative)**
Final Exam: **3/18/03 (due date if take home)**