

Introduction to
Bioinformatics course
2010-2011

Schedule of classes
Theoretical and practical lessons
Monday 16-18
Thursday 16-18
Friday 14:30-16:30
ECDL Room
Course attendance is not obligatory
but it is very much encouraged

Schedules and subjects of the lectures

1	Introduction to the classes. Functions and goals of Bioinformatics. International sites and integration. NCBI and EBI sites.
2	Database - Pub Med
3	OMIM
4-5	Query tools: Entrez - Ebi_eye The primary database: GenBank and Protein
6-7	The derivative databases: RefSeq, Gene, Unigene
8	The derivative database: UniSTS and dbSNP.
9	Genomic Resources and Projects
10	MapView
11-13	Alignment (Theory) and BLAST
14	Ensembl
15-16	Molecular Evolution and Phylogenetic analysis

Bioinformatics

Free individual practice

**Bioinformatic room
Dept. Genetics and Microbiology**

Teaching Staff

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Tutors

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Course material

Recommended books

- **Lesk A. Introduction to bioinformatics**
Oxford Univ. Press, ed.
 - Westhead DR, Parish JH, Twyman RM.
Bioinformatics (Instant notes), Taylor and Francis,
ed.
 - Claverie J-M, Notredame C. Bioinformatics for
Dummies, Wiley Publishing, ed.
- Free online information (handbook and
tutorials) at NCBI and EBI sites**

Examinations

- **When**
 - Two exams will be scheduled in each session
(summer, autumn, winter)
 - But you can only take the exam once a
session
- **Where**
 - ECDL room
- **How**
 - Computer-based exercises (2 hour lasting)
 - Oral discussion

Laurea Magistralis Molecular Biology and Genetics Web sites

- **Home page** **<http://mbg.unipv.it>**
- **Bioinformatics**
<http://mbg.unipv.it/?pagina=corsi&id=1>
- **Course synopsis**
<http://mbg.unipv.it/?pagina=p&id=22>