

MMBG 103 BIOINFORMATICS

Coordinator: Assistant Professor N. Glykos

1. "A bird's-eye view of bioinformatics: databases, algorithms and programs" (2h)

Nicholas M. Glykos, - Assistant Professor of Computational and Structural Biology - Department of Molecular Biology and Genetics, DEMOCRITUS UNIVERSITY OF THRACE.

2. "Sequence alignments : bioinformatics' sine qua non. Part I : Scoring matrices, rigorous pairwise sequence alignment algorithms, multiple sequence alignment methods" (2h)

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3. "Sequence alignments : bioinformatics' sine qua non. Part II : BLAST and friends, database searches"

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4. "Phylogenetic analysis and clustering : a very short introduction" (2h)

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5. "Machine learning : introduction to hidden Markov models & artificial neural networks " (2h)

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6. "Ontologies and data modelling in Bioinformatics" (2h)

Eleni Kaldoudi, - Associate Professor , Physics of Medical Imaging – Telemedicine - Medical Department, Democritus University of Thrace.

7. "SNPs : databases, programs and applications. (2h)

Peristera Paschou, Assistant Professor of Population Genetics -Department of Molecular Biology and Genetics, DUTH

8. "Introduction to biomolecular simulation methods" (2h)

Athanassios Stavrakoudis, Assistant Professor in Computer Simulation -Departments of Economics, University of Ioannina.

9. "Application of bioinformatics to predict MHC ligands and antigenic T-cell epitopes" (2h)

Katerina Chlichlia, Assistant Professor of Molecular Immunology - Department of Molecular Biology and Genetics, DEMOCRITUS UNIVERSITY OF THRACE.

10. "Protein folding problem : physics-based atomic resolution approaches"

Nicholas M. Glykos, - Assistant Professor of Computational and Structural Biology - Department of Molecular Biology and Genetics, DEMOCRITUS UNIVERSITY OF THRACE.