

# Bioinformatics 2020-2021

## Part I : Foundations

Date	Time	Lecturer	Title
Friday, Oct 30 <sup>th</sup>	1500-1700	Nicholas M. Glykos	A bird's-eye view of bioinformatics: databases, algorithms and programs.
Saturday, Oct 31 <sup>st</sup>	1730-1930	Nicholas M. Glykos	Sequence alignments : bioinformatics' sine qua non. Part I : Scoring matrices, rigorous pairwise sequence alignment algorithms, multiple sequence alignment methods
Sunday, Nov 1 <sup>st</sup>	1730-1930	Nicholas M. Glykos	Sequence alignments : bioinformatics' sine qua non. Part II : BLAST and friends, database searches
Friday, Nov 20 <sup>th</sup>	1730-1930	Aristotelis C. Papageorgiou	Phylogenetic analysis and clustering : a very short introduction
Saturday, Nov 21 <sup>st</sup>	1730-1930	Nicholas M. Glykos	Machine learning : introduction to hidden Markov models & artificial neural networks

## Part II : Methods, algorithms, databases and applications

Date	Time	Lecturer	Title
Sunday, Nov 22 <sup>nd</sup>	1730-1930	Petros Kolovos	Bioinformatics and state-of-the-art scientific approaches
Friday, Dec 11 <sup>th</sup>	1730-1930	Katerina Chlichlia	Application of bioinformatics to predict MHC ligands and antigenic T-cell epitopes.
Saturday, Dec 12 <sup>th</sup>	1500-1700	Grigoris Amoutzias	Bioinformatics applications to proteomics and phosphoproteomics.
Sunday, Dec 13 <sup>th</sup>	1730-1930	Georgios Ch. Sirakoulis	Cellular automata models in Biology
Friday, Jan 15 <sup>th</sup>	1730-1930	Antonis Giannakakis	The evolution of gene expression