



Izmir Institute of Technology

MBG 403 – Computational Biology

Instructor	Jens Allmer E-Mail: mbg403@allmer.de Web: http://mbg403.allmer.de	
Text Books	Lecture notes published weekly (online on course's web page). Required to be studied before class.	
Description	While MBG305 covered a number of algorithms which are available online, the focus of MBG403 is to use algorithms that are not available online or to use features that are not made available online. Some algorithms will be briefly reviewed but much of the course is for productivity. Essential computer skills will be taught alongside with advanced computer skills such as database design and XML/HTML literacy. Computational pipelines will be covered and set-up during the course. Algorithms will be covered on a more general level enabling algorithmic thinking and new problem solving strategies.	
Outline	18/2/10	Software, Installable, Environment
	25/2/10	Input/ Output, Formats
	4/3/10	Command line tools: Blast, Fasta, ...
	11/3/10	More Console Applications
	18/3/10	Pipelines: Putting it all together
	25/3/10	Online Tools: Data acquisition Formats
	1/4/10	Midterm
	8/4/10	Databases: Access, MySQL
	15/4/10	Database Design Filing Data
	22/4/10	Micro Array Analysis
	29/4/10	Annotation Tools
	6/5/10	Data Mining I
	13/5/10	Data Mining II
	20/5/10	Student Presentations
GRADING	Homework	20
	Project (inc. Presentation)	30
	Midterm	25
	Final	25
	Attendance	Is required by YÖK and will be enforced. Your grade will not be influenced by attendance other than that you may fail due to low attendance (<70%)
Office Hours	Tuesdays	14:00 – 16:00 Room: 230