

Master Programme VU Bioinformatics and Systems Biology / UvA Life Sciences: Systems Biology and Bioinformatics – 2012-2013									
Period 1		Period 2		Period 3	Period 4		Period 5		Period 6
sept	oct	nov	dec	jan	feb	mar	apr	may	jun
Bioinformatics and Systems Biology - Compulsory (24 + 18 ec)									
Fundamentals of Bioinformatics (6ec) VU + UvA		Algorithms in Sequence Analysis (6ec) VU		Biosystems Data Analysis (6ec) UvA	Structural Bioinformatics (6ec) VU		Bioinformatics for Translational Medicine (6ec) VU		Proposal Writing (6 ec) VU # or Thesis Writing (6 ec) UvA # flexible*
Introduction to Systems Biology (6ec) VU + UvA		Systems Biology in Practice (6ec) UvA			Basic Models of Biological Networks (6ec) VU		Advanced Modeling in Systems Biology (6ec) VU #		
							Statistics with R (6ec) VU #		
Optional Recommended Courses									
Molecular Structure in Biology (6ec) UvA					Synthetic Biology and Biomedicine (6ec) UvA		iGEM (18-30ec)		
					Computational Biology (6ec) UvA				
Preparatory Bachelor Courses (assigned to address deficiencies; max 12 ec)									
Calculus 1 (6ec) VU		Inleiding Programmeren (Python) (6ec) VU			Machine Learning (6ec) VU				
		Collective Intelligence (6ec) VU			Biochemie (3ec) VU		Natuurkunde & Gezondh.(3ec) VU		
Lineaire algebra voor BWI en N (6ec) UvA					Lineaire algebra I (6ec) VU				
		Physical Biology o/t Cell I (6ec) VU							
Optional Courses Other Masters (possibly in second year)									
Neural Networks (6ec) VU		Stochastic Simulation (6ec) UvA		Understanding Molecular Simulation (6ec) UvA	Scientific Computing (6ec) UvA		Data Mining Techniques (6ec) VU		Complex System Simulation (6ec) UvA
Evolutionary Computing (6ec) VU		Signal Transduction in Health and Disease (6ec) VU							
Parallel Programming for High-performance Applications (6ec) VU		Advanced Selforganisation (6ec) VU							
Genomes and Gene Expression (6ec) VU		Computer Graphics (6ec) VU							
		Physical Biology o/t Cell (3ec) VU							
Key:									
Compulsory		First year: o 42 ec's are compulsory: - 24 ec's are compulsory for all students - 18 ec's differentiate between the Bioinformatics and Systems Biology profiles o 18 ec's are can be chosen freely. * schedule of Proposal Writing and of Thesis Writing is flexible and not limited to Period 6 in the first year # choose one out of Advanced Modeling in Systems Biology or Statistics with R And one out of Proposal Writing or Thesis Writing				Second year: 60 ec's of projects: - major (max. 42 ec's) must match profile (Bioinformatics or Systems Biology) - minor (min. 18 ec's)			
Bioinformatics Profile									
Systems Biology Profile									
Recommended Optional Courses									
Supplementary Courses									
Optional Courses									