

No.	Date	Lecturer	Topic	Problem set
1.	Tu 9/4/07	States	Introduction to Bioinformatics Programming, Course overview, Programming style, Student survey	Information retrieval
2.	Th 9/6/07	Cavalcoli	SQL - Basic insert, select and delete; Intro to data types; Databases design	
3.	Tu 9/11/07	Cavalcoli	SQL - Keys, foreign keys, and relationships; Joins; Group by; Aggregate functions	Intro SQL
4.	Th 9/13/07	Cavalcoli	SQL - Nested queries; Indexes and query optimization	
5.	Tu 9/18/07	Cavalcoli	SQL - Variables; Stored procedures; Bulk copy	How many genes are there Ensembl/NCBI/HGNC comparison
6.	Th 9/20/07	Cavalcoli	SQL - Cursors; Control flow; Permissions and security	
7.	Tu 9/25/07	States	R - Exploratory data analysis graphics, Introduction to R data structures	Intro R
8.	Th 9/27/07	States	R - I/O, RODBC, Functions	
9.	Tu 10/2/07	States	R - Arrays and subscripts, Model fitting	R models and data fitting
10.	Th 10/4/07	States	R - CRAN, Loading packages, Package interface	
11.	Tu 10/9/07	MacDonald	BioConductor	Gene expression analysis
12.	Th 10/11/07	MacDonald	BioConductor	
	Tu 10/16/07	Study Break		--
13.	Th 10/18/07	de Wet	Rapid scripting - Intro to Perl /Python variables and control flow	
14.	Tu 10/23/07	de Wet	Rapid scripting - Regular expressions, Associative arrays	Intro scripting
15.	Th 10/25/07	de Wet	Rapid scripting - Functions, scoping, database access	
16.	Tu 10/30/07	de Wet	Rapid scripting - Multi-dimensional and complex data structures	NLP & Medline - find key authors
17.	Th 11/1/07	de Wet	Rapid scripting - Intro to object oriented programming	
18.	Tu 11/6/07	Weymouth	Java - Intro to Java and Eclipse IDE; "Hello World!"; Atomic data types	Intro Java
19.	Th 11/8/07	Weymouth	Java -Data structures and classes; Try/Catch error handling; Memory handling	
20.	Tu 11/13/07	Weymouth	Java - Inheritance; Container classes	Intermediate Java
21.	Th 11/15/07	Weymouth	Java - Database interface; Regular expression; More container classes	

22.	Tu 11/20/07	Weymouth	Java -Intro to Java GUIs	Re-sequence the E. coli genome
	Th 11/22/07	Thanksgiving		
23.	Tu 11/27/07	Wright	Web - Apache/PHP/DB/HTML framework	Intro web services
24.	Th 11/29/07	Gao	XML, XMLSchema, XPath, XSLT	
25.	Tu 12/4/07	Ade	RDF and SPARQL	XML, XPath and XSLT - 1 GO
26.	Th 12/6/07	Kirschner	Portals, JSP and NetBeans	
27.	Tu 12/11/07		Project presentations	