Course Instructor: Kory R. Johnson, MS, Ph.D.
Instructor contact: kjohnsos@gmu.edu
Course website: http://binf.gmu.edu/kjohnsos/
Course text: "Microarray Bioinformatics" by Dov Stokel (2003)

Class schedule:

08/31/2009 Lecture 1
Title: "Course Overview, Introduction to Microarrays, Molecular Biology Primer"
Relevant Chapter Reading: Chp. 1, 2, 3

09/07/2009 No Class (Holiday)

09/14/2009 Lecture 2
Title: "Data Pre-Processing & Normalization"
Relevant Chapter Reading: Chp. 4, 5
Other:
Lecture 2 Exercise Issued (5 points)

09/21/2009 Lecture 3
Title: "Exploratory Analysis, Outlier Analysis"
Relevant Chapter Reading: Chp. 8
Other:
Lecture 3 Exercise Issued (5 points)
Lecture 2 Exercise Due (5 points)

09/28/2009 Lecture 4
Title: "Noise, Normality, & Variance Analysis"
Relevant Chapter Reading: Chp. 6, 7
Lecture 5
Title: "Significance Analysis"
Relevant Chapter Reading: Chp. 6, 7

Lecture 6
Title: "Probe/Feature Selection"
Relevant Chapter Reading:

Lecture 7
Title: "Pattern Discovery, Class Discovery"
Relevant Chapter Reading: Chp. 8

Lecture 8
Title: "Classification, Prediction"
Relevant Chapter Reading: Chp. 9
11/09/2009
Lecture 9
Title: “Pathway, Function Analysis”
Relevant Chapter Reading: NA
Other:
Lecture 8 Exercise Issued (5 points)
Lecture 7 Exercise Due (5 points)

11/16/2009
Lecture 10
Title: “Network Analysis”
Relevant Chapter Reading: NA
Other:
Lecture 9 Exercise Issued (5 points)
Lecture 8 Exercise Due (5 points)

11/23/2009
Lecture 11
Title: “Promoter Analysis”
Relevant Chapter Reading: NA
Other:
Lecture 10 Exercise Issued (5 points)
Lecture 9 Exercise Due (5 points)

11/30/2009
Lecture 12
Title: “3’ UTR Analysis”
Relevant Chapter Reading: NA
Other:
12/07/2009
Lecture 13
Title: "Experiment Planning"
Relevant Chapter Reading: Chp. 10
Other:
Final Exam Issued (40 points)
Lecture 12 Exercise Due (5 points)

12/14/2009
Final Exam Due (40 points)

Grading:
A = >=90 points
B = 80-89 points
C = 70-79 points
F = <= 69 points