Revised syllabus: Binf 633  Molec Biotechnology

Purpose: Advanced course in applied molecular biology and molecular biotechnology, reinforcing molecular and cellular biology concepts and exploring applications. Develop skills for the analysis, understanding and presentation of scientific information.
Place: Innovation Hall, Rm. 135, Tues 7:20pm- 10pm
Schedule of lectures and events:

- Jan 19 Lec 1: Course mechanics; science and society  Chapt 1: pp 1-13; 897-939
- Jan 26 Lec 2: Applied vs basic science; Evolution-based  Chapt 2-3: pp 14-97
- Feb 2 Snow Day
- Feb 9 Snow Day
- Feb 16 [take-home exam]; Lec 3 Chem/Biol basics  Chapt 4-5: pp 98-194
- Mar 2 Lec 5: Genomics  Chapt 4: pp 98-145; Chapt 5: pp 146-193
- Mar 9 Spring Break
- Mar 16 Lec 6: “Omics”  Chapt 5: pp 146-193
- Mar 23 Lec 7: Prokayotic expression systems  Chapt 6: pp 195-238; large-scale production of proteins  Chapt 17: pp 685-722
- Mar 30 Exam 2
- Apr 6 Lec 8: Eukayotic expression systems  Chapt 7 pp240-288
- Apr 13 Lec 9: Stem cells; Therapeutic agents  Chapt 21: pp 851-855; Chapt 10: pp 379-398
- Apr 20 Lec 10: Monoclonal antibodies; vaccines  Chapt 10: pp 399-422; Chapt 12: pp 459-497
- Apr 27 Lec 11: Agriculture: plant and animal; non-ag selections from Chapts 19, 20, 21
- May 4 Snow Day make-up: Student presentations
- Apr 8 [Saturday] Final exam 6:45pm

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Occoquan Bldg, RM 325;
Office hours by request, and Tues/Thurs 11am -1pm; Thurs @Fairfax 5-7

Course website under BINF Department website:
http://binf.gmu.edu/websites.html

Grading format:
- three exams @100pts ea
- one oral presentations @25pts ea
- one written presentation @25pts DUE 04/20/10, no exceptions
- three homework @25pts ea

Grading structure: 85%A, 70%B, 55%C

[(TBD) extra credit 50pts total as ‘bonus’ points on exams]

WRITTEN assignment: 3-5 pages; “Topic on evolution and medicine or biotech application”. With citations.
ORAL assignment: 10-15 min.: “Which organism would I save if I were Noah”.

**Adherence to academic integrity and the GMU Honor Code expected (http://honorcode.gmu.edu).
****Concerns regarding email address privacy should be addressed with instructor.