

**BTCH 210 Biotechnology Syllabus**  
**Fall 2011; MWF 10:00 – 10:50**

**Instructor:** Dr. Robert Grier Ph.D.  
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**Office hours:** T/Th 9:00-10:45 am or by appointment

**Required Text:** Biotechnology an introduction by Susan R Barnum, 2<sup>nd</sup> ed. & assigned literature. The text will be used to provide much material, but ongoing development requires that pertinent topics from the current literature will also be explored. Lecture outlines and power points will be available on Blackboard prior to class, with the expectation that the student will use them as note-taking guides. When sources other than the text are used on-line access to the relevant material will be through the FSU library e-journals.

**Prerequisites:** none.

**Course Description/Objectives:** The course will be an introductory course on biotechnology focusing on the molecular, and genetic principles and processes involved in biotechnology. Following a review of basic and molecular genetics and immunology discussions will include descriptions of the main elements of biotechnology. Include are processes involved in forensic molecular biology and genetic modification of microbial, plant, & animal cells. The course will also cover important medical applications of biotechnology, including using human genome data. Students will be expected to show a thorough grasp of the critical elements of cell biology by responding accurately to questions of fact about details of the nature of the processes of biotechnology.

**Grading:** 4 exams; course grade will be average of 3 highest exam grades:  
**Any** missed exam will count as lowest exam grade

**Exam schedule:** (Subject to change by the lecturer if necessary)

Exam 1:  
Exam 2:  
Exam 3:  
Exam 4:

Exams will primarily consist of multiple choice and matching, and will include figures presented in class. One short essays will appear on each exam. The final exam is not comprehensive. Students are expected to take exams during the scheduled date and time. Makeup exams are at the discretion of the instructor and will be allowed only when **serious** circumstances intervene and documentation is provided. The makeup exam will be an essay exam and will be substantially different from the scheduled exam. Students will be responsible for retaining graded material once it is returned in order to reconstruct the grade book in the event of an emergency.

Class Schedule (subject to change by lecturer if necessary)

		Chapter
Wk 1	Introduction & biotechnology overview	1
Wk 2	DNA to Protein	2
Wk 3	Recombinant DNA technology	3
Wk 3	<b>Exam 1</b>	
Wk 4	Phage display	H/O
Wk 5	Forensics	11
Wk 6	Immunology	4
Wk 6	<b>Exam 2</b>	
Wk 7	Microbial biotechnology	5
Wk 8	Plant biotechnology	6
Wk 9	Animal biotechnology	7
Wk 9	<b>Exam 3</b>	
Wk 10	Marine biotechnology	8
Wk 11	Genomics	9
Wk 12	Medical biotechnology	10
Wk 13	Regulation, patents	12
Wk 14	<b>Exam 4</b>	
Wk 15	Review	
Wk 16	Final Exam	