

## BCHB 527 Food Biotechnology

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Spring 2008 – 2 Credits M- 10:00 am to 4:00 pm (March 10 - April 28, 2008)

	Topic	10-12	1-3	Comments
	<ul style="list-style-type: none"> <li>• Biotechnology: its role and future in the food industry</li> <li>• Regulatory aspects</li> <li>• Bioterrorism</li> </ul>		Review, Group discussion, paper reviews and work on products	Where, when and why biotechnology has potential in the food industry – entrepreneurial opportunities Legal and ethical issues associated with biotechnology applications in food industry Keeping our supply food safe
	<ul style="list-style-type: none"> <li>• Food microbiology and safety</li> <li>• Impact of biotechnology on major food ingredients</li> </ul>		Review, Group discussion, paper reviews and work on products	Rapid detection tools based on biotechnology are essential for food safety and quality of food supply Physical/chemical changes and improvement of sweeteners, fats, carbohydrates, proteins, bulking agents through biotech
	Easter break			
	<ul style="list-style-type: none"> <li>• Flavors and Aromas</li> <li>• Taste and olfaction</li> </ul>		Review, Group discussion, paper reviews and work on products	Ingredients to improve taste; biotechnology role in flavor manufacturing and recovery Biochemistry of taste and olfactory
	Mid-term exam			
	<ul style="list-style-type: none"> <li>• Improvement of existing fermentation technologies</li> </ul>		Review, Group discussion, paper reviews and work on products	Improvements of traditional fermentation processes such as beer, wine, bread, cheese, etc. using biotechnology
	<ul style="list-style-type: none"> <li>• Nutraceuticals and Nutrigenomics</li> <li>• Health engineering through foods</li> </ul>		Review, Group discussion, paper reviews and work on products	Nutrition, health sustaining and health enhancing ingredients Understanding of human metabolism and digestion, and pre-disposition
	Final Exam			