



## COURSE INFORMATION SHEET

### **BIOLOGY 231** **INTRODUCTION OF CELL AND MOLECULAR BIOLOGY** Tentative Course Outline and Schedule for Winter 2009

**Instructor:** Dr. Jessmi Ling

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**Course description:**

A cell is the smallest unit of life. It is highly complex and organized so that cellular activities are precise and efficient. This course introduces students to the basic cell structures and their functions. Cellular processes including energy production, gene expression, reproduction and communication will be discussed.

**Course learning objectives:**

1. Students will be able to identify basic cellular structures and explain their functions.
2. Students will be able to describe details of essential cellular activities.
3. Students will gain knowledge of theories behind the various molecular biology techniques.

**Required textbook:**

Gerald Karp. *Cell and Molecular Biology: Concepts and Experiments*. 5<sup>th</sup> Edition. 2008. John Wiley & Sons, Inc.

<b>Date</b>	<b>Topic</b>	<b>Chapter</b>
Jan 7	Introduction to the course	1.1-1.3
Jan 9	Plasma membrane – Structure and function I	4.1 – 4.6
Jan 14	Plasma membrane – Structure and function II	4.7 – 4.8
Jan 16	Cytoplasmic membrane systems I	8.1 – 8.4
Jan 21	Cytoplasmic membrane systems II	8.5 – 8.9
Jan 23	The mitochondrion	5
Jan 30	Review	
<b>Feb 4</b>	<b>Midterm Exam I</b>	
Feb 6	The chloroplast	6
Feb 11	Interaction between cells and their environment	7

