GRANDE PRAIRIE REGIONAL COLLEGE

BIOLOGY 2010

GENERAL INFORMATION

Instructor: Ken Fry
Office: J222
Telephone: 539-2827

Description: This course examines cells in terms of the molecular structure of its components and how the properties of these determine and affect function. Emphasis is placed on animal cells although comparisons with prokaryotic and plant cells will be made. Also included will be information on some of the experimental techniques used in the study of cell and molecular biology.

Text-book: Alberts *et al.* 1989. Molecular Biology of the Cell. Fitzhenry & Whiteside Ltd.

Requirements:

A) Since participation in lectures and laboratories and completion of assignments are all important components of this course, students will serve their interests best by regular attendance. Those who chose not to attend must assume whatever risks are involved. In this regard, the attention of the students is directed to the Academic Guidelines of the College.
B) Lecture Quizzes
C) Lecture Midterm (tentatively October 18)
E) Final Lecture Exam (date set by Registrar)

Lectures: Section A2. M, W, F 1200 - 1250. Room J101

LECTURE OUTLINE

Date		Topic	Text Chapter
September			
Wed.	8	Introduction/History	4
Fri.	10	Light Microscopy	4
Mon.	13	Electron Microscopy	4
Wed.	15	Biochemical Techniques	4
Fri.	17	Bioenergetics	2
Mon.	20	Biochemistry	3
Wed.	22	Enzymes	3
Fri.	24	Lipid Bilayers	6
Mon.	27	Membrane Proteins	6
Wed.	29	Membrane Transport	6
October			
Fri.	1	Extracellular Matrix	14
Mon.	4	Cell Junctions	14
Wed.	6	Mitochondria	7
Fri.	8	Metabolism	2
Mon.	11	Thanksgiving Day	**NO CLASS**
Wed.	13	Metabolism	2
Fri.	15	Plant Cells	20
Mon.	18	**MIDTERM EXAM**	**IN CLASS**
Wed.	20	Chloroplasts	7
Fri.	22	Photosynthesis	7
Mon.	25	Endoplasmic Reticulum	8
Wed.	27	Golgi Bodies	8
Fri.	29	Lysosomes	8
November			
Mon.	1	Microbodies	8
Wed.	3	Cytoskeleton	11
Fri.	5	Cytoskeleton	11
Mon.	8	Cytoskeleton	11
Wed.	10	Muscle Structure	17
Fri.	12	Contraction	11
Mon.	15	Contraction	11
Wed.	17	Nucleus	9
Fri.	19	Nucleolus	9
Mon.	22	Chromosomes	9
Wed.	24	Replication/Transcription	9
Fri.	26	Translation	3
Mon.	29	Growth	13

December

Wed.	1	Growth	13
Fri.	3	Cell Division	13
Mon.	6	Cell Division	13
Wed.	8	Review	

THE ABOVE SCHEDULE AND PROCEDURES IN THIS COURSE ARE SUBJECT TO CHANGE IN THE EVENT OF EXTENUATING CIRCUMSTANCES

EVALUATION

Your final mark will be calculated from the following combination of marks:

Quizzes	4 @ 7.5% each = 30%
Midterm Exam	30%
Final Exam	40%

Examinations will consist of multiple choice, short answer, or essay questions. The midterm will include all topics covered through Oct. 18. The final exam will include all material considered in the course. To do well you must be able to interpret and synthesize material covered in lecture, lab, and text (the organization and emphasis of my course differs from that of the text). I also expect you to participate fully in class discussions.

TRANSFERABILITY

Univ. of Alberta	BIOL 201
Univ. of Calgary	CMMB 301
Univ. of Lethbridge	BIOL 2300
Athabasca Univ.	BIOL 3xx
Augustana	BIO 330
Concordia	BIO 201
King's College	BIOL 303
Canadian Union College	BIOL 374