

BIOLOGY 401A CRN10405 COURSE OUTLINE FALL 2017

1) MEET THE INSTRUCTORS

- ◆ Dr. Francis Choy (course coordinator):
 - ◆ Professor in the Department of Biology and a member of the Centre for Biomedical Research (CBR).
 - ◆ Expertise is in molecular genetics and enzymology, focusing on the metabolic and molecular bases of lysosomal storage diseases, specifically Gaucher disease and Sanfilippo syndrome (which result from an inherited deficiency of glucocerebrosidase and N-acetyl glucosaminidase, respectively).
 - ◆ My Lab and Office are in Cunn 062. You can reach me at the following numbers:
 - Office (062a): 721-7107
 - FAX: 721-7120
 - E-mail: fchoy@uvic.ca
- ◆ Dr. Barbara Ehltng: Assistant teaching professor in the Department of Biology
 - ◆ Office Petch 005
 - ◆ Email: behlting@uvic.ca
 - ◆ Phone: 250 472 4066
 - ◆ Expertise in molecular biology, cell biology, biotechnology, genetics, genomics,...

2) WHAT IS THIS COURSE ABOUT?

This course is designed to give you an understanding of the application of genetic and molecular biological principles to research and industry; it is about the “Tools and Rules” of Biotechnology.

3) WHERE AND WHEN

- ◆ Monday and Thursday, 10:00 am to 11:20 am, ECS Room 124

4) STRUCTURE AND ORGANIZATION OF THE COURSE

The course will be given by Drs. Barbara Ehltng and Francis Choy

- ◆ There is no designated textbook for this course, but all lectures notes can be downloaded from the Biol 401A CourseSpaces site.

5) THE GRADING SYSTEM

1 st mid-term exam	25%
2 nd mid-term exam	30%
Final Exam	<u>45%</u>
	100%

5.1) Mid-Term Exams

- ◆ The two mid-term exams will be held on

October 2 - From lectures presented from September 7-28

November 6 – From lectures presented on Oct 5-Nov 2

- ◆ You are responsible for all lecture materials.

5.2) The Final Exam

- ◆ The final exam will be cumulative and cover all topics presented in the course, with emphasis from the third section after the 2nd mid-term. The format will be announced late in the semester.

6) THE GRADING SYSTEM

- Final Grades will be assigned on the basis of the following scale:

A+	A	A-	B+	B	B-	C+	C	D	F
90-100%	85-89.9%	80-84.9%	77-79.9%	73-76.9%	70-72.9%	65-69.9%	60-64.9%	50-59.9%	0-49.9%

An “E” grade will not be assigned and Supplemental Exams will not be allowed.

TENTATIVE LECTURE SCHEDULE FALL 2016

Thursday	September 7	Protein Expression Systems I	Dr. Choy
Monday	September 11	Protein Expression Systems II	Dr. Choy
Thursday	September 14	DNA enzymes I	Dr. Choy
Monday	September 18	DNA enzymes II	Dr. Choy
Thursday	September 21	Biotechniques I	Dr. Choy
Monday	September 25	Biotechniques II	Dr. Choy
Thursday	September 28	Transgenic Animal Model	Dr. Choy
Monday	October 2	FIRST MID-TERM EXAM	Dr. Choy
Thursday	October 5	CRISP-Cas9 technology	Dr. Choy's lab
Monday	October 9	Thanksgiving Day NO CLASS	
Thursday	October 12	Details of cloning I	Dr. Ehlting
Monday	October 16	Details of cloning II	Dr. Ehlting
Thursday	October 19	Details of cloning III	Dr. Ehlting
Monday	October 23	Sequencing and bioinformatics I	Dr. Ehlting

Thursday	October 26	Sequencing and bioinformatics II	Dr. Ehlting
Monday	October 30	Sequencing and bioinformatics III	Dr. Ehlting
Thursday	November 2	Next generations sequencing I	Dr. Ehlting
Monday	November 6	SECOND MIDTERM EXAM	
Thursday	November 9	Next generation sequencing II	Dr. Ehlting
Monday	November 13	Reading break NO CLASS	
Thursday	November 16	Transgenic animal model	Dr. Choy
Monday	November 20	Antibody engineering	Dr. Choy
Thursday	November 23	Stem cell technology	Dr. Choy
Monday	November 27	Biotechnology on industrial level I	Dr. Ehlting
Thursday	November 30	Biotechnology on industrial level II	Dr. Ehlting

FINAL EXAMINATION, PLACE AND DATE TO BE ANNOUNCED