

Elementary Genetics BIOL 206 -A 2164
Winter Semester 2017
Biology Department
Concordia University, Montreal, Canada

Credits: 3 credits

Lectures: Tuesday and Thursday, 10:15- 11:30 pm

Location: H 531 SGW (downtown campus)

Instructor: Aida Abu-Baker

Office: SP 375.35

Office phone: (514) 848-2424, x 3395

Office hours: 11:30-12:30 Tuesday & Thursday

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Teaching assistant: Hassan Damen

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Course Description

The course will provide students with a basic foundation in human genetics. Fundamental principles of classical, molecular and population genetics will be covered with a strong focus on their application to human inheritance and the genetic basis of human diseases. The course will also focus on the application of molecular genetics in medicine and biotechnology. The relevance of genetics in law, ethics and society will be highlighted.

Course Objectives

1. To provide a solid understanding of basic genetics concepts and principles.
2. To develop appreciation of scientific methods of modern genetics as it applies to humans.
3. To improve students' critical thinking skills on the impact of genetics in our society.

Detailed course outline

		Book's chapter
Week 1	Introduction to Genetics & Basic Cell Biology	Biology Basics 1
Week 2	Sex and Reproduction Changes in Chromosome Number	Chapter 1 Chapter 3
Week 3	How Genes Are Transmitted from Generation to Generation	Chapter 4 Chapter 4
Week 4	DNA and RNA	Biology Basics 2
Week 5	Gene Expression and Regulation	Chapter 5

Week 6	Changes in DNA: Mutation	Chapter 6
Week 7	DNA profiling & human variation	Chapter 9
Week 8	Genomics	Chapter 10
Week 9	Midterm Exam	
Week 10	Genes & Environment Complex Traits	Biology Basics 3 Chapter 11
Week 11	Cancer Behavior	Chapter 12 Chapter 13
Week 12	Genetics & Population	Chapter 15
Week 13	Revision Lecture	

Textbook

Human Genetics and Society, 2nd Edition

Authors: Ronnee Yashon & Michael Cummings. Nelson Publishing

Print copy in bookstore or can purchase online access to the ebook:

<http://www.nelsonbrain.com/shop/isbn/9781133752691>

All lectures will be available on Moodle BIOL206

It is **recommended** that students attend all classes, and read the assigned materials regularly. Students are highly encouraged to participate in all learning activities involved in this class.

Please feel free to **ask me any question** during the class lectures, office hours or by email.

Grading:

Genetics in the news group presentation & report. Instructions on how to prepare the presentation and report, as well as the dates of your presentations will be posted on Course's Moodle soon (**20%**).

Midterm will be on Thursday Feb.16th (30%)

Final (50%). Note that the final exam is cumulative.

No makeup or supplemental exams will be available. Please contact me immediately if you have a medical emergency. You will need to provide a medical note from your doctor.

Notes

This is a large class but you are not a small part of it! To make our time together as valuable as possible, we both have to work hard at it. The following basic principles may give us some guidelines (Code of Rights and Responsibilities, Concordia University):

- Every student has the right to learn as well as the responsibility not to deprive others of their right to learn.

- Every student is accountable for his or her own actions.

Please respect the focus of students and professor and **arrive on time.**

Disruption (e.g. talking, making loud or distracting noises, leaving the classroom without authorization) **will not be tolerated in this class.** The disruptive student(s) will be asked to leave the classroom immediately.

Your cell phone and laptop computers should be turned off in class time.

Please respect the focus of students and professor and **arrive on time.**

No food is allowed in class.

Code of Rights and Responsibilities

http://web2.concordia.ca/Legal_Counsel/policies/english/BD/BD-4.html

It is not acceptable to do the following:

- Copy from ANYWHERE without saying from where it came.
- Omit quotation marks for direct quotations.
- Let another student copy your work and then submit it as his/her own.
- Hand in the same assignment in more than one class without permission.
- Have unauthorized material in an exam, such as cheat sheets, or crib notes.

YOU DON'T HAVE TO BE CAUGHT USING THEM - JUST HAVING THEM WILL GET YOU INTO TROUBLE!

- Copy from someone else's exam.
- Communicate with another student during an exam by talking or using some form of signals.
- Add or remove pages from an examination booklet or take the booklet out of an exam room.
- Get hold of or steal an exam or assignment answers or questions.
- Write a test or exam for someone else or have someone write it for you.
- Hand in false documents such as medical notes, transcript or record.

- Falsify data or research results.

Source: The Academic Integrity Website

<http://provost.concordia.ca/academicintegrity/misconduct/>

The most common offense under the Academic Code of Conduct is plagiarism which the Code defines as "the presentation of the work of another person as one's own or without proper acknowledgement" (Article 16 a). This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. If you translate the work of another person into French or English and do not cite the source, this is also plagiarism. If you cite your own work without the correct citation, this too is plagiarism.

In Simple Words:

NOT COPY, PARAPHRASE OR TRANSLATE ANYTHING FROM
ANYWHERE WITHOUT SAYING FROM WHERE YOU GOT IT! DON'T
FORGET TO USE QUOTATION MARKS!

This information is an adaptation of the material produced by the Code Administrator of the Faculty of Arts and Science at Concordia University

Source: The Academic Integrity Website:

<http://provost.concordia.ca/academicintegrity/plagiarism/>

List of Student Services

<http://www.concordia.ca/info/currentstudents/studentsservices/>

- Concordia Counselling and Development: <http://cdev.concordia.ca/> (offers career psychological services, student learning services, etc.)
- The Concordia Library Citation and Style Guides:
<http://library.concordia.ca/help/howto/citations.html>
- Advocacy and Support Services <http://supportservices.concordia.ca/>
- Student Transition Centre <http://stc.concordia.ca/>
- New Student Program <http://newstudent.concordia.ca/>
- Access Centre for Students with Disabilities

<http://supportservices.concordia.ca/disabilities/>

- Student Success Centre <http://studentsuccess.concordia.ca/>
- The Academic Integrity Website <http://provost.concordia.ca/academicintegrity/>
- Financial Aid & Awards <http://web2.concordia.ca/financialaid/>
- Health Services <http://www-health.concordia.ca/>