MOLECULAR BIOLOGY I: NUCLEIC ACID METABOLISM  
SC/BIOL 3110, FALL 2013

COURSE DIRECTOR: Dr. Peter Cheung  
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416-736-2100 x 31322

LECTURES: Tuesdays and Thursdays, 10:00 – 11:30 AM, SLH D

LECTURE SLIDES: Lecture slides will be posted on Moodle AFTER class has been given

TEXTS: No specific text required

Recommended:
T.A. Brown  
http://www.ncbi.nlm.nih.gov/books/NBK21128/

Molecular Biology of the Gene  
(J.D. Watson and others)

GRADING: Two midterm tests: 25% each  
Final Exam: 50%  
The final exam is cumulative but weighted. Each section will end up having equal representation over the 3 exams

MIDTERM DATES: First midterm: Oct 3rd, 2013  
Second midterm: Nov 5th, 2013

IMPORTANT COURSE INFORMATION:  
University policy, procedures and regulations on Academic Honesty/ Integrity, Access/Disability, Student Conduct, Religious Observance Accommodation, etc. are available on the Committee on Curriculum and Academic Standards (CCAS) website http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm. Students will be held accountable to all policies and regulations on academic standards listed at this site.

OFFICE HOURS: Office hours are between 2 – 4 PM, Thursdays. Students should email in advance and call my office number to arrange entry onto the 3rd floor of LSB. Students are encouraged to contact me ONLY at the regular office hours, or immediate after classes.
EMAIL: Questions requiring short answers can be asked via email up to 24 hours before a midterm or final. Please send email questions to: yorkubiol3110@gmail.com. If you want a response, all course-related questions MUST be sent to this gmail account and have Biol3110 in the subject line. Questions requiring lengthy answers should be asked during office hours.

GENERAL POLICIES:

1. If you miss an exam (midterm or final) with a legitimate documented reason, documentation must be submitted to me (Dr. Cheung) in order to avoid receiving a grade of zero on the exam. Only a "York Attending Physician's Statement Form" (can be downloaded as part of the Petitions Package) OR a similarly detailed doctor’s note (i.e. not simply a form stating that the student visited a clinic) will be accepted for medical excuses. I must receive all documentation supporting your excuse for missing an exam within 2 weeks of the missed exam.

2. In the event of one missed midterm with a valid documented reason, the weight of this midterm will be distributed evenly between the other midterm and the final exam. **No makeup exam will be available for midterms.** In the event of a missed final exam with a valid, documented reason (where both midterms have been written), a deferred final exam will be offered. In the event that a student misses more than one exam with valid documented reasons (two midterms, a midterm and a final, or all three exams), the student will be required to petition in order to take the deferred final exam.

3. In order to be fair and consistent with regards to the entire class, individual grades are not negotiable. Contact me about marks ONLY if there is a clear error in your mark (calculation, clerical, etc.) as soon as possible at yorkubiol3110@gmail.com. It is highly unlikely that you will receive a response regarding any other mark-related queries.

4. Students who do not write the final exam, but have completed both midterms must contact me for permission to write a deferred exam (i.e. sign the Deferred Standing Agreement form). It is Senate Policy that "Normal requests for deferred standing must be communicated within one week following a missed examination, or on the last day to submit course work". Please check out the Registrar’s Office Deferred Standing FAQs (http://www.registrar.yorku.ca/services/ds_faq.htm) for more details. Students who have missed more than one exam will be required to petition to write a deferred final exam.
TOPICS THAT WE WILL COVER:

1. DNA basics: history, chemical composition and physical properties of nucleic acids
2. DNA topology and DNA topoisomerases
3. Methods for studying DNA and molecular biology
4. Genome organization of prokaryotes and eukaryotes
5. Genome packaging of prokaryotes and eukaryotes
6. Arrangement of chromosomal territories and long range chromosomal interactions within the eukaryotic genome
7. DNA synthesis and replication
8. Regulation of genome replication
9. Intro to chromatin and histone modifications
10. Intro to epigenetics

TOPICS WILL BE COVERED IN THESE CHAPTERS AND OTHER SOURCES:

Molecular Biology of the Gene: Chapters 2, 4, 5, 7, 8, 9

GENOMES 2: Chapters 1 – 11