

BIOC15H3Y Genetics

Course Syllabus Summer 2019

Genetics lectures: Wednesday 1200h-1400h in IC130 and Thursday 1400h-1500h in SW309

Genetics laboratory sessions: Wednesdays 1400h-1700h in SW 242; Thursday 1000h-1300h in SW242 and Thursdays 1500h-1800h in SW242.

Course Personnel	Office Hours	Email
Instructor: Karen Williams, PhD	SW542 (Tuesday) /Thursday 1530h -1630h	kd.williams@utoronto.ca
TAs: Aeen Ebrahim Amini; Lisa Shao; Alvin Singh	TBA	

Course Goals and Learning Objectives

In Genetics you will discover the world of genes: eukaryotic inheritance, the chromosomal basis of inheritance, gene mutations, genomics, gene interactions, gene function and the genetic dissection of biological processes. Your participation in the scientific process through a laboratory project will enhance your ability to understand the transmission of genetic material. In general lectures and labs provide opportunities for students to:

- Understand the terms used in genetics
- Solve genetic problems and apply concepts to case studies
- Develop skills in the reading of genetics primary literature
- Develop analytical skills to be able to collaborate, present and write about your experiments

Through the assignments and tests you will:

- Learn to work with *Drosophila melanogaster*: to do genetic crosses, to assess their results and to understand how classic genetic techniques contribute to the information available for this genetic model organism.
- Keep up with the information in lecture and labs by using the Online Assessments (“pop quizzes”) to facilitate timely interaction with the genetic information covered and to help prepare for the tests and exams
- Evaluate how well you have learned the material: the exams (term tests and final) are comprehensive and will test your ability to understand the material and to apply the knowledge to new cases.

Text: Genetics: From genes to genomes. Hartwell, L.H. et al. 2nd Canadian Ed. 2017. McGraw-Hill Ryerson. ISBN 9781259370887. www.mhhe.com

Recommended: Writing in the Biological Sciences. Hoffman, A. 3rd Ed. 2019.OUP. ISBN9780190852191

Week of	Lecture topic	Readings from text	Lab #
06-May-19	Introduction to C15 genetics	Hartwell text Chs. 1 & 8	no lab
13-May-19	Mutants and Genomes	Ch. 8 & 7	1
22-May-19	Mendelian Genetics	Ch. 2 & 3	2
27-May-19	Chromosomes vs. extranuclear inheritance	Ch. 6, 18 (& 4)	3
03-Jun-19	TEST I (5th June); Chromosomes	Ch. 4	4
10-Jun-19	Basic Chromosome mapping	Ch. 4 & 15	5
READING WEEK			
24-Jun-19	Chromosome mutations	Ch. 9 & 16	6
2-Jul-19	Chromosomes and cancer	Ch. 9, (11) & 16	7
08-Jul-19	TEST II (10th July); Genetics of development	Ch. 11,16 & 17	8
15-Jul-19	Genetics of development; Populations	Ch. 11,12, 16 & 17	9
22-Jul-19	Population genetics	Ch. 12	
29-Jul-19	Quantitative genetics & Review	Konopka & Benzer 1971	Report due
Finals		Tests and exam are cumulative	

Please note that every attempt will be made to follow this lecture schedule but the most up-to-date schedule will be the one posted on Quercus.

Lab manual: Available on Quercus as a pdf. Required lab materials: Lab coats; 1 pot of PlayDoh.

% Grade	Assignments	Date due
14	Lab Practical Performance	Ongoing May to July
10	Lab Written Report	1-Aug-19
2	Lab Oral Report	In lab
6	Online Assessments	Ongoing
15	Test 1	05-Jun-19
15	Test 2	10-Jul-19
38	Final exam	exam period

Assessment information

Turnitin: "Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site".

Students are required to upload their assignments to Turnitin. If you would like to opt out of Turnitin you are required to submit a request to the instructor in writing by May 31st and be prepared to submit draft copies of your lab report.

Late Penalties

Online assessments: Please note that it is NOT possible to make-up a missed online assessment, and if you miss all the online assessments you will not have an OA grade, i.e. you will receive a zero.

Laboratory practical assignments: Please note it is usually NOT possible to make up a missed lab or lab quiz. There are no makeup lab quizzes. See * below

Lab written report: Late assignments (either paper or Turnitin copy or both) will be penalized 5 points per day (24 hours) of lateness to a maximum of 5 days of lateness. A report handed in after 5 days of lateness will be given a grade of zero.

Oral report: It is NOT possible to make up a missed presentation.

Missed tests/exams: You must notify the instructor within 48h of a missed test (see * below). There will be ONE make-up term test for those with a valid U of T medical certificate

http://www.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf

If you missed the Final Exam please see Registrar's office.

Procedures and Policies

Course information

Please see Quercus for all queries and check Quercus frequently for updated information.

Attendance, Labs, Lectures and Notes

In this third year course attendance and participation in lectures is expected. Lectures will be webcast (available only for 2 weeks after the lecture). Lecture notes will be available 12 to 24 hours prior to the lecture. Laboratory attendance is expected and extra time outside of scheduled lab practical hours "Flex time" will be necessary to complete your project. Lab coats are required (see Lab manual).

Email

Contact information for instructor kd.williams@utoronto.ca and TAs are available. Please use your U of T email address for all communication emails from other addresses may not receive a response.

Re-Evaluation requests

A written request for re-evaluation must accompany the report assignment or test. All requests must be addressed to the instructor (email requests permitted) and must be received by August 23rd 2019. Please be advised that the entire assignment or test will be evaluated and your grade may go up, down or may not change.

Academic Integrity

Please see UTSC resource links on Academic integrity:

<http://www.adfg.utoronto.ca/processes/acdiscipline/AcademicDisciplineResourcesLinks.htm>

Please see also UTSC student policy on “code of behaviour in academic matters” by following this link:

http://www.utsc.utoronto.ca/~stuaff/student_policies.html

Access Ability, Religious accommodation and other policies

“Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services as soon as possible.

AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.”

Syllabus statement from AccessAbility, please follow the link below for UTSC student services related to Access Ability:

<http://www.utsc.utoronto.ca/~ability/>

Please see the link below for policies on religious accommodation and student conduct:

http://www.utsc.utoronto.ca/~stuaff/student_policies.html

***Absences in Summer:**

“This summer we are trying a pilot program regarding the requirement of submitting the Verification of Student Illness form for missed term assignments. Specifically, if you are ill during the term, and this

illness influences your ability to meet a deadline for submission of a term assignment, rather than submitting a Verification of Student Illness form in your request for accommodation you can submit a Self-Declaration of Student Illness form, indicating the days in which you were ill. This form is meant to take the place of the more typical medical form, and will be available on the main page of the department's website www.utsc.utoronto.ca/biosci.

Please note the following aspects related to this Self-Declaration of Student Illness form:

1. Similar to the submission of a medical form, **YOU ARE RESPONSIBLE** for contacting Jennifer Campbell, the administrative staff in your department to make arrangements for an accommodation for this work.
2. You may use the Self-Declaration of Student Illness form **ONLY** for term assignments. For any term exams in this course, you will need to submit a Verification of Student Illness form. For the final exam, you will need to follow the typical procedures for petitioning to write a deferred exam.
3. You may use the Self-Declaration of Student Illness form up to five times in this course. If you require an additional accommodation for a term assignment, you must then use the standard Verification of Student Illness form.
4. Submitting a false Self-Declaration of Student Illness form constitutes academic misconduct, and could be subject to sanctions under the Code of Behaviour on Academic Matters.

Please submit any Self-Declaration of Student Illness forms in the same fashion as you would have a previous Verification of Student Illness form. Accordingly, you will need to submit this form to Jennifer Campbell, Course Coordinator within three days of the missed term work.

Please ensure you consult the course syllabus for policies and procedures regarding missed term work and possible accommodations. Once you have submitted the Self Declaration form or UTSC medical certificate to Jennifer Campbell, Jennifer will consult with your instructor and give you instructions on what accommodations (if any) you will have.

Please contact me directly if you have any questions.

Jennifer

Jennifer Campbell

Course Coordinator

Department of Biological Sciences”