



UNIVERSITY OF
TORONTO
SCARBOROUGH

BIOC19H3 – Animal Developmental Biology

Fall 2020

Instructor: Daman Bawa

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Teaching Assistants: Urja Naik and Aditi Aswini Kuruparan

Office Hours: Tuesday 2:00 PM – 4:00 PM

Office hours will be through Bb Collaborate or by appointment through Microsoft Teams.

Please be prepared and consult lecture materials. Appointments outside these hours can be arranged by e-mail. If the hours need to be changed or if there are technical hurdles during the semester, you will be notified by an announcement.

Lecture: Pre-recorded lectures will be posted online every week on Thursdays by the end of the day.

Textbook: This textbook is optional and can be purchased online (UofT bookstore)

Development Biology (11th or 12th edition)

Scott F. Gilbert and Michael J. F. Barressi

Oxford University Press / Sinauer Press

The best way to reach me outside the office hours is by e-mail but please keep in mind that I generally do not reply to emails on weekends. **Please use your UTORONTO e-mail account** and include your course code in the subject. Emails sent from non-university accounts will not be answered.

Lectures:

BIOC19 will provide an overview of cellular and molecular events involved in embryonic development. We will cover topics that include different model systems to study development, with an emphasis on regulation of gene expression. Topics related to growth, differentiation, organogenesis and morphogenesis will also be covered. The lecture material will come from a number of sources including the textbook, primary papers, reviews and other sources.

Course lecture videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. In this course, you are permitted to view lecture videos and materials for your own academic use, but you should not copy (or screen record), share, or use them for any other purpose without the explicit permission of the instructor. Non-compliance with these terms violates an instructor's intellectual property rights and the Canadian Copyright Act. Students violating this agreement will be subject to disciplinary actions under the Code of Student Conduct.

Accessibility:

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 Office as soon as possible. AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) 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.

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Academic integrity/plagiarism:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviors that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments: Using someone else's ideas or words without appropriate acknowledgement. Submitting your own work in more than one course without the permission of the instructor. Making up sources or facts. Obtaining or providing unauthorized assistance on any assignment.

On tests and exams: Using or possessing unauthorized aids. Looking at someone else's answers during an exam or test. Misrepresenting your identity.

In academic work: Falsifying institutional documents or grades. Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behavior or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (refer to: <https://www.academicintegrity.utoronto.ca>).

Use of Turnitin:

“Normally, students will be required to submit their course assignments to Turnitin for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their assignments 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”.

We will use Turnitin for your assignments and exam answers to detect any plagiarism.

Grade Breakdown:

The grade breakdown for the course will be as listed below. The quizzes and exams will test the material covered in lectures. The exams may include any combination of the following: multiple-choice questions, fill in the blank(s), short answer type and essay type questions that test your understanding and application of the course material. **If you miss an exam or a quiz for an official reason (e.g. documented emergency or illness), you must contact me within 48 Hours and provide me with appropriate documentation as necessary.**

Quizzes: 10% (5 X 2%)	Quizzes will be based on lecture material. Specific information will be posted on Quercus.	Dates: See tentative schedule
Assignment 1: 10%	Detailed instructions will be provided on Quercus.	Due Date: Nov 2
Assignment 2: 10%	Detailed instructions will be provided on Quercus.	Due Date: Dec 1
Midterm Exam: 25%	Topics covered before the date of exam	Date: TBA
Final exam: 45%	Cumulative – All topics covered in the course.	Date: TBA

Online submissions:

The quizzes and exams will be conducted / submitted online. It is the students' responsibility that they are on a device with a good and stable internet connection while taking the quizzes / exams and that all evaluations are completed and submitted within the time period specified. Late quizzes and exams will not be accepted and will receive a grade of zero.

Taking or sharing a picture or screenshot of any part of the quizzes and exams, discussing the questions / answers with other students and use of any unauthorized aids (e.g. textbooks, online material etc.) is considered plagiarism / academic dishonesty and it will be investigated following the procedures outlined in the Code of Behaviour on Academic Matters: <https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019>

For assignments, there will be 10% late penalty per day for any assignments submitted after the due date. Assignments that are more than 5 days late will not be accepted and will receive a grade of zero.

Tentative Quiz Schedule:

The quizzes will be done online on Quercus and will include multiple-choice questions and fill in the blanks. Each quiz will be worth 2% of your final grade for the total combined grade of 10% over the whole term. If any changes need to be made due to unforeseen circumstances or if there is a conflict with the midterm exam, it will be posted on Quercus.

Week of:

Sept 21	Quiz 1
Oct 5	Quiz 2
Oct 26	Quiz 3
Nov 9	Quiz 4
Nov 23	Quiz 5

Tentative Lecture Schedule:

More than one topic may be covered in one lecture while some topics will be covered over more than one lecture. The topics may be covered in a different order than the one listed below.

- Topic 1:** Overview of the course; Principles of Development
- Topic 2:** Studying developmental biology – tools and techniques
- Topic 3:** Differential gene expression, developmental patterning



- Topic 4:** Development System: Development of blood cells
- Topic 5:** Cell signaling and communication
- Topic 6:** Early development
- Topic 7:** Development of nervous system
- Topic 8:** Organogenesis
- Topic 9:** Metamorphosis and regeneration
- Topic 10:** Gametogenesis and Fertilization
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