

## **BIOLOGY 3FF3 Evolution**

### **Time**

2017 Fall term

### **Coordination**

person: Doc Roc  
office: LSB 327  
telephone number: 905-525-9140 (+26136)  
e-contact: use **avenue** to learn course folder Discussion Tool

### **Objectives**

Successful participants synthesise and apply the main theoretical concepts and evaluate and analyse the major empirical observations related to evolution upon completing this course.

### **Topics**

Course content could include items presented subsequently:

#### Introduction

- The Pattern of Evolution
- Evolution by Natural Selection
- Estimating Evolutionary Trees

#### Mechanisms of Evolutionary Change

- Mendelian Genetics in Populations I: Selection and Mutation
- Mendelian Genetics in Populations II: Migration, Genetic Drift, and Nonrandom Mating
- Evolution at Multiple Loci: Linkage and Sex
- Evolution at Multiple Loci: Quantitative Genetics

#### Adaptation

- Studying Adaptation: Evolutionary Analysis of Form and Function
- Sexual Selection

#### The History of Life

- Mechanisms of Speciation
- Development and Evolution
- Human Evolution.

### **Resources**

Textbook: Herron, J. C., and S. Freeman. 2013. *Evolutionary Analysis* (5<sup>th</sup> edition). New York: Prentice Hall.

e-learning management tool: an 'information and repository' course folder is accessible via the McMaster University Centre for Leadership in Learning Internet site, at the URI <http://avenue.mcmaster.ca> (the software **avenue** to learn will be used); course participants must be familiar with how to use this resource.

## Core

Core sessions are delivered in ITB 137 on Mondays and Thursdays from 1230 to 1320 and Tuesdays from 1330 to 1420.

## Tutorial

Tutorials sessions usually start with teaching assistants answering questions or addressing issues related to core material and thereafter generally involve informal (enjoyable) activities, which could include games, 'practicals,' or discussions.

## Evaluation

A 100 point scale is implemented for evaluation. The final grade is calculated as a sum over the components listed immediately below;

online quizzes	10
report	15
assessments	15
tutorial assignments	30
examination	30

it then is converted trivially to a percentage and thence to the McMaster University 12-point grading system.

## Messages From University Administration

Please visit the URI <http://www.mcmaster.ca/academicintegrity> for details about the academic integrity policy for McMaster University (course participant first and last names, user names for McMaster e-mail accounts, and program affiliation may become apparent to other course participants in the course via the course folder; turnitin.com might be used to check for plagiarism).

"Each student enrolled in this course has been granted permission to access an online learning management system, Avenue to Learn. Avenue to Learn course pages are considered an extension of the classroom and usage is provided as a privilege subject to the same code of conduct expected in a lecture hall (see relevant section of the student code of conduct below). This privilege allows participation in course discussion forums and access to supplementary course materials. Please be advised that all areas of Avenue to Learn, including discussion forums, are owned and operated by McMaster University. Any content or communications deemed inappropriate by the course instructor (or designated individual) may be removed at his/her discretion. Per the University Technology Services Code of Conduct, all members of the McMaster community are obligated to use computing resources in ways that are responsible, ethical and professional. Avenue to Learn Terms of Use are available at the URI <http://avenue.mcmaster.ca>.

Student Code of Conduct - Appendix D Major Offences include, but are not limited to: (h) engaging in disruptive behaviour. Disruptive behaviour is behaviour in class or out of class which involves substantial disorder and/or disrupts the operation of the University;

(j) engaging in verbal or non-verbal behaviour or communication toward an individual or group which is considered to be intimidating, harassing and/or discriminatory.”

“If a student is absent from the university for a minor medical reason, lasting fewer than 5 days, then the student may report the absence, once per term, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to the appropriate Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. When using the MSAF, report the absence to [jstoner@mcmaster.ca](mailto:jstoner@mcmaster.ca), then contact the appropriate teaching assistant immediately (*i.e.*, within 2 working days) to learn what relief may be granted for the work missed and relevant details. Please note that the MSAF may not be used for term work worth 30% or more, nor can it be used for the examination.”

In other cases, course participants should contact personnel in the appropriate office (as outlined in the Undergraduate Calendar, section “Requests for Relief for Missed Academic Term Work”, via the URI [http://academiccalendars.romcmaster.ca/content.php?catoid=7&navoid=559&hl=%22relief+for+missed+academic+term+work%22&returnto=search#Requests\\_for\\_Relief\\_for\\_Missed\\_Academic\\_Term\\_Work](http://academiccalendars.romcmaster.ca/content.php?catoid=7&navoid=559&hl=%22relief+for+missed+academic+term+work%22&returnto=search#Requests_for_Relief_for_Missed_Academic_Term_Work)).

“The university reserves the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, students will be given reasonable notice with an explanation and an opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.”