

Course Outline Form: Fall 2017

General Information

Course Code: MBG*4020

Course Title: Genetics of Companion Animals

Course Description:

This course explores theoretical and applied aspects of breeding programs for performance, pleasure and hobby animal populations to enhance genetic selection and population viability. Case studies are used to explore the theory and practice of designing practical and sustainable breeding programs that integrate molecular genetics, animal breeding and statistical genomics for a variety of single and multiple birth species.

Credit Weight: 0.5

Academic Department (or campus): Animal Biosciences

Campus: Guelph

Semester Offering: Fall 2017

Class Schedule and Location:

Lectures – Monday / Wednesday / Friday 2:30-3:20pm in ALEX 100

Instructor Information

Instructor Name: Dr. Andy Robinson

Instructor Email: andyr@uoguelph.ca

Office location and office hours: ANNU 122, TBD or by appointment

GTA Information

GTA Name: Ms. Kristen Alves

GTA Email: kalves@uoguelph.ca

GTA Name: Mr. Bayode Makanjuola
GTA Email: bmakanju@uoguelph.ca

Course Content

Specific Learning Outcomes:

Since the beginning of domestication, humans have managed animal populations for many purposes. Managing the genetic resources and variability of small populations under a number of constraints requires a balanced approach that includes a sound knowledge of the theory and a practical approach to problem solving. By the end of this course, you will be able to manage a breeding program and understand:

1. the impact of population size on the success of the program
2. setting up, achieving and monitoring selection goals
3. objectively and consistently measuring and assessing phenotypes
4. the effective and appropriate incorporation of molecular genetic information
5. how genetics as a science interacts with genetics as a social and legal concept

Lecture Content:

Lecture topic schedules and topic material will be posted on CourseLink regularly in advance of the class(es) where they are discussed.

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Quizzes (10 @ 4% ea)	See CourseLink	40	All
Online Midterm	Week of Oct 16	15	1, 2 and 3

Additional Notes (if required):

N/A

Final examination date and time:

Saturday December 9, 2017 2:30-4:30pm

Final exam weighting:

45%

Course Resources

Required Texts:

None.

Recommended Texts:

None.

Other Resources:

Lecture information and other material that will be discussed in class will be posted on CourseLink in advance. We will do some “flipped classroom” activities where you will be expected to review material prior to class in order to cover meaningful examples and have meaningful discussions in class. Your notes from MBG-3060 Quantitative Genetics will provide valuable background information for this course. Copies of a representative set of course notes from MBG-3060 will be posted on CourseLink in case you no longer have your notes.

Field Trips:

There is an optional Miniature Donkey Open House Sunday September 24, 2017. Details will be provided separately via CourseLink. You will be responsible for your own transportation but there will be a ride sharing discussion forum on CourseLink to assist with car pooling.

Additional Costs:

None.

Course Policies

Grading Policies:

For quizzes, consult the CourseLink site for the deadlines. Quizzes are open for one week and the results are released immediately after the deadline, therefore there is a 7-day window in which to do the quiz. Quiz results are released immediately after the deadline and since the answers are available to all, there is no late option for a quiz. If you are unable to complete a quiz for reasons warranting academic consideration, contact the instructor as soon as possible.

Course Policy on Group Work:

Online quizzes are designed as formative assessment – learning experiences. There is great benefit in collaborating with your fellow students on these quizzes to understand the material. Each student must submit their own quiz, but collaboration is encouraged. The online midterm is a mid-semester summative assessment (i.e. not a learning experience but a chance to demonstrate your mastery of the first three learning objectives). The number of questions and the amount of time for the midterm is tuned to discourage collaboration. While the midterm is presented in such a way that collaboration cannot be prevented, extensive collaboration will result in not being able to complete the midterm quiz. Therefore, it would be better to approach the midterm as if it were a conventional midterm and prepare in advance to write it as a solo effort.

Course Policy on Student Technology:

The vast majority students are using their own technology such as smartphones, laptops and tablets in class as well as for the University of Guelph's online Learning Management System (aka CourseLink). In this course, it is your responsibility to ensure that you can access the course materials and complete online course requirements, such as quizzes on CourseLink, within the time allotted regardless of technological issues you may encounter. There are many places on campus or out in the world-at-large where computers may be accessed or signed out if your own technology is non-functional. If CourseLink is not accessible for a significant period of time (not including scheduled maintenance) deemed by the instructor to have had an impact on students' abilities to complete quizzes, deadlines will be extended.

In class, you are welcome to use technology to take notes and interact with the course material. This should be done in a way that respects your fellow students by not creating undue distractions in the classroom. Keep in mind that if your technology uses the University's wireless network to access the Internet, the University's acceptable use policy also comes into play.

http://www.uoguelph.ca/cio/sites/uoguelph.ca.cio/files/CIO-ITSecurity-03.1.3-AUP-Approved_0.pdf

Course Policy regarding use of electronic devices and recording of lectures:

Electronic recording of classes is expressly forbidden without consent of the individual instructor for that class. When recordings are permitted, they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor. If the instructor provides a recording of the lecture (aka "podcast"), these recordings are also solely for the use of the authorized student and may not

be reproduced, or transmitted to others, without the express written consent of the instructor. Please note that if provided, podcasts are an optional additional tool for assisting with your learning and there is no guarantee a podcast will be available for every lecture.

Course Policy on E-Mail:

Email is used as an important source of updates about this course. All official email from the instructor will be sent to your University email account (@uoguelph.ca). It is expected that you are checking this email account on a frequent basis. The instructor for this course is involved with other courses as well, just as you are. If you email the course instructor and would like a timely response, please keep in mind that over 1,000 other students may also be emailing the instructor about this course and other courses – it can be a lot of email in a day. In order to facilitate an answer to your email, please consider the following guidelines:

- correspond with the instructor using your official University email only (@uoguelph.ca), emails from other addresses could be screened as spam
- if the answer to your email query can be found in the course outline or other material posted on the MBG-4020 CourseLink site, you might not receive a reply
- include the course code (MBG-4020) in the subject along with a few relevant key words indicating what your message is about
- include your full name and student number in the email signature
- allow 24 to 48 hours for a response to your query

University Policies

Academic Consideration:

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs and is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events in the form of Academic Consideration.

Information on regulations and procedures for Academic Consideration, Appeals and Petitions, including categories, grounds, timelines and appeals can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Academic Misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Detailed information regarding the Academic Misconduct policy is available in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Accessibility:

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services (SAS), formerly Centre for Students with Disabilities (CSD), as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or visit the [Student Accessibility Services website \(http://www.uoguelph.ca/csd/\)](http://www.uoguelph.ca/csd/).

Course Evaluation Information:

End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions used as an important component in the Faculty Tenure and Promotion process, and as valuable feedback to help instructors enhance the quality of their teaching effectiveness and course delivery.

While many course evaluations are conducted in class others are now conducted online. Please refer to the [Course and Instructor Evaluation Website](#) for more information.

Drop period:

The drop period for single semester courses starts at the beginning of the add period and extends to the Fortieth (40th) class day of the current semester (the last date to drop a single semester courses without academic penalty) which is listed in [Section III \(Schedule of Dates\) of the Undergraduate Calendar](#).

The drop period for two semester courses starts at the beginning of the add period in the first semester and extends to the last day of the add period in the second semester.

Information about Dropping Courses can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).