

MGY315H1 S

Principles of Genetic Analysis II

Winter 2026 Syllabus

Course Meetings

MGY315H1 S

Section	Day & Time	Delivery Mode & Location
LEC0101	Thursday, 1:00 PM - 5:00 PM	In Person: To Be Announced

Refer to ACORN for the most up-to-date information about the location of the course meetings.

Course Contacts

Instructor: Dr. Thomas Hurd

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Phone: 6476467789

Course Overview

Laboratory experiments in animal (invertebrate) genetics, using two of the most powerful small animal (invertebrate) model systems, the roundworm *Caenorhabditis elegans* and fruit fly *Drosophila melanogaster*. Students are expected to develop competencies in handling the invertebrates with small tools, setting up crosses, analyzing phenotype using microscopes, and carrying out a forward genetic screen. The course follows MGY314H1; topics include analysis of genetic networks and pathways, recombination mapping, genetic crosses, and phenotypic analyses. (Lab Materials Fee: \$25)

Prerequisites: BIO230H1/ BIO255H1, BIO260H1/ HMB265H1, MGY314H1/ MGY340H1

Corequisites: None

Exclusions: MGY312H1

Recommended Preparation: None

Credit Value: 0.5

Marking Scheme

Assessment	Percent	Details	Due Date
Participation (worm)	3%		2026-01-09 - 2026-02-13
Weekly Lab Tasks including Quizzes (worm)	21%		2026-01-09 - 2026-02-13
Lab Reports (worm)	15.5%		2026-01-09 - 2026-02-13
Mid-term Exam (worm)	10.5%		2026-02-24
Participation (fly)	5%		2026-02-26 - 2026-04-02
Lab Quizzes (fly)	5%		2026-02-26 - 2026-04-02
Lab Reports/Worksheets (fly)	25%		2026-02-26 - 2026-04-06
In-Person Final Exam	15%		Final Exam Period

Policies & Statements

Late/Missed Assignments

10% will be deducted per day up to 3 days late, after which the work will not be accepted. Reports more than 3 days late will receive a mark of 0. Students requiring accommodation due to unforeseen emergencies should contact their TA as soon as possible and provide appropriate documentation to the course coordinator (Thomas Hurd).

Plagiarism Detection Tool

Normally, students will be required to submit their course essays to the University's plagiarism detection tool 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 tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (<https://uoft.me/pdt-faq>).