



Principles of Human Genetics 3592A

COURSE OUTLINE (SYLLABUS) - UNDERGRADUATE COURSE

Welcome! I am very excited to share the materials gathered for this year's journey in learning about discoveries, research, and careers in Human Genetics.

Greetings to everyone registered for our course Principles of Human Genetics 3592A - 2022.

Our theme is "From Principle to Practice"

I am thankful for our teaching team of graduate students. I am grateful for our mentors and guest speakers. I am particularly excited that alumni from the Hill laboratory will join our class to give their perspective and experience on entrance to graduate school, job market, start-up ventures, and professional schools [medicine, dentistry, and others].

I too am a university student [part-time since 2016 set to graduate in 2023] and I continue to explore and adapt both 'in person' and online teaching and learning experiences. I enjoy the interaction of 'in person' and synchronous teaching and learning. I appreciate the flexibility, freedom and challenges of online teaching and learning.

A helpful approach to take with this course is consistent effort week to week. There are course elements that require attention each week. It will require preparation, self-discipline, self-reflection, and hard work. The course is designed to increase your knowledge and understanding of principles in human genetics and provide you with training in research skills and science communication. We will introduce you to leaders in the field and to mentors in science careers. There will be opportunities to gain experiential learning with independent projects and teamwork.

*The diversity of tools used in this course is intentional hoping to find aspects that resonate with individual learners and provide a toolkit to draw from for other courses and future research. We selected hot topics in Human Genetics, we will explore new topics, and we there are opportunities for each student to have the freedom to select independent topics for study. There are **multiple assessments of different formats**. The course uses **individual and group assignments**. **Online quizzes** provide a progressive and continuous evaluation dynamic. All materials provide content and preparation for a **final comprehensive examination**. Weekly, there are three-hours of content delivery with an expectation of time spent in independent preparation [reading articles and previewing online materials] and application [engaging with course materials and forums and completing online Packback assignments and OWL quizzes].*

*The teaching assistants and I look forward to engaging with you over the semester and we look forward to reviewing your work and seeing your engagement with the course material. We also learn from you as you do research in this course. Our **invited guests** are keen to discuss their professions with you.*

*In sum, this course offers **in-person engagement, online mentorship, professional skills development, and experiential learning projects**. It is our intent that the wide spectrum of **current advances in human genetics** fits within a diversity of expectations and needs associated with current interests in genetics and future careers in basic and applied fields of Human Genetics.*

Western's Important Information for 'in-person' lecture and tutorial attendance

Western University Classroom Expectations

Masking: Starting September 1, 2022, Western requires medical-grade (ASTM level 3) masks indoors in instructional spaces for degree credit courses such as classrooms, labs, and seminar rooms, and may be required for large indoor events. [Sept 6, 2022 important update](#)

Up-to-date Western TakeCare information: Please review and adhere to the following from the Western TakeCare Website: <https://takecare.westernu.ca/>

Medical-grade (ASTM level 3) masks remain available for pick up at all Western library locations using your Western ONECard and will be available at some building entrances.

While in the classroom, students can remove their mask temporarily to take a drink. **Eating should only take place outside of the instructional space in the eateries and common spaces.** Students unwilling to wear a mask as stipulated by Western policy will be referred to the Dean/Associate Dean, and such actions will be considered a violation of the student Code of Conduct.

COVID-19 Self-Assessment and Absence Notification: All students and employees are encouraged to complete the [provincial COVID-19 self-assessment tool](#) before they return to campus each day.

- **Undergraduate students:** If you are required to self-isolate as a result of direction obtained from a [COVID-19 Self-Assessment](#), please do so. If you are not able to complete your remote learning or attend campus for an in-person assessment or final exam, please contact your home [Faculty Academic Counselling Office](#) to request academic considerations.

Dr K. Hill will continue to monitor departmental, faculty and university level instructions regarding 'in-person' instruction. Any changes or further instructions will be communicated through **OWL announcements**. Student questions may be posted to the OWL forum – **General Discussion** – and will be addressed by Dr Hill in that forum. For individual-specific queries, these may be emailed to khill22@uwo.ca

Principles of Human Genetics 3592A



COURSE OUTLINE (SYLLABUS) - UNDERGRADUATE COURSE

Course outline posting date: Monday, September 12, 2022

The course outline will be posted to the 'Syllabus' tab on the 2022 3592A OWL site: <http://owl.uwo.ca>. The OWL site and course outline will be described and reviewed in the First Class.

First Class [Lecture]: Monday, September 12, 2022; 12:30 pm **Natural Sciences Centre Room 007**

***** NOTE THE ROOM CHANGE – Lecture and Tutorial are held in NSC7*****

First Tutorial: Wednesday, September 14 11:30 am in **NSC007**

Questions regarding the outline will be addressed in class and via the 3592A OWL Forum – General Discussion.

There is no textbook for this course; the **required readings** are provided through the OWL course site.

Separate documentation appended to this course outline [last page] will direct students to the purchase and use of Packback in this course. Packback may require a paid subscription. Refer to www.packback.co/product/pricing for more information.

Packback is an online platform for student engagement in **the art of designing open ended questions**. Packback is used to **engage with the scientific literature** covered in the course. Use of Packback provides training in **written science communication, citation of peer-reviewed literature, writing for technical and lay audiences, engaging with course content and networking with the teaching team and peers in the course**. This course uses Packback for 10 weekly engagement sessions.

Packback is an online learning tool the teaching team and students use to engage in experiential learning in science writing and developing skills associated with creating open questions and conceptual abstract design strategies.

Key Sessional Dates:

First meeting [in person]: Sept 12, 2022 –course outline/syllabus; **NSC7 @ 12:30 pm**

First Tutorial: Sept 15, 2022; **NSC7 @ 11:30 am**

Thanksgiving Holiday: Oct. 8–10 Thanksgiving Weekend; No Lecture Oct 10

A recent policy revision prohibits *all* academic activities from 6 pm the Friday before Thanksgiving until 11:59 pm on Thanksgiving. No assessments may be scheduled or have a deadline during this period.

Fall Reading Week: **Oct 31 to Nov 6, 2022**

– no classes; no new material is covered/posted during this break – Enjoy the break

“15% progression mark”: **Nov 9, 2022** [15% of grade available if work submitted by due dates]

Last day to withdraw: **Nov 12, 2022**

Last Tutorial/Lecture: **Dec 8, 2022;** these sessions are final exam review/help sessions

Dec. 8 **Last Day of classes in the Fall Term**

Dec. 9 **Study Day**

Dec. 10–22 **December examination period**

Final exam [comprehensive, in person, multiple formats, proctored, 3 hours]: **TBA by Registrar**

Methods of Evaluation and Due Dates

Evaluations on student performance in the course [Schedule of Assessments]:

OWL-delivered Weekly Quizzes [Specified Tutorial/Lecture content] **[10%]**

due Thursdays at 11:59 PM [best scores for 8 of 10 quizzes] Quiz 1 due Sept 22nd

This is a built-in accommodation permitting two missed quizzes

Course Engagement [Weekly] **[15%]**

Owl Forum: 1. Your introduction/biography, 2. Genetics in the News, 3. Research Tool Highlights; 4. Reflection on History of Human Genetics, 5. Challenges in Informed Consent

Packback engagement [best scores for 8 of 10 weeks; syllabus instructions appended]

This is a built-in accommodation permitting two missed weeks' posts

OWL-based Assignments

All assignment descriptions, instructions, due dates, and rubrics will be posted with each OWL assignment and will be reviewed in online tutorials posted to the OWL course site

Day in the Life of a Geneticist: A Case Study with Pedigree Challenge [**Oct 28**] **[15%]**

Bioethics Debate and Workshop – Team Assignment [**Nov 18**] **[10%]**

Readings Log: Key information for a lay audience – [**Nov 25**] **[10%]**

Comprehensive Final Examination [TBA by Registrar's Office] **[40%]**

Faculty of Science Special Exam [with prior accommodation approval] – Jan 2023 – date TBA

No electronic devices are permitted on the final examination.

**Writing of the final examination is a requirement to pass the course; Certain of the learning objectives are only covered by the final examination and are not included in other assignment and assessment.

1. Course Information

Course Information

Principles of Human Genetics 3592A is a **blended** course [Fall 2022]; course content will be delivered both online (asynchronous availability - posted on **OWL**) and in-person (synchronous – during in-person or online lectures and tutorials). Lectures and Tutorials will be held in Natural Sciences Centre Room 7 [NSC7]. Lecture and Tutorial are 50-minute sessions.

There are expectations of student independent weekly engagement prior to in-person lectures and tutorials, and weekly completion of course milestones. It is not advisable to delay completion of course milestones beyond the one-week period. Content and course engagement grow rapidly each week and missed content and engagement can become very challenging to cover if catching up rather than participating weekly with peers, teaching assistants and the course instructor.

Synchronous course components

Lectures Monday and Wednesdays 12:30 to 1:20 pm NSC7: In-person lectures and workshops for synchronous attendance, engagement, and interaction with course materials. There will be required readings to be completed beforehand. Teaching team members will endeavor to provide audio recordings of the ‘in person’ sessions. The intent is to offer engagement with course and tutorial content, review and apply material, and hear from guest experts.

Tutorials Wednesdays 11:30 to 12:20 pm NSC7: Once-a-week tutorial session for synchronous in-person attendance, engagement, and interaction with tutorial materials. There will be asynchronous content to complete beforehand. Teaching team members will endeavor to provide audio recordings of the ‘in person’ sessions. The intent is to offer once-a-week engagement with course and tutorial content, review and apply material, and hear from guest experts.

Office Hours and Help Sessions [Date/time: to be announced through OWL announcements]: Virtual synchronous sessions with TAs and instructor will be offered. For these sessions, questions can be submitted beforehand in the OWL forum and during the sessions using the zoom chat function. Instructors will use the OWL forum and audio/video/softboard software to address comments and questions.

Asynchronous course components

The OWL course site will use the **OWL Forum** for continuous offering of assistance to students for posting and answering questions regarding course content. The OWL Forum is monitored daily Monday through Friday. The OWL Forum has multiple channels for students to gain assistance with general and specific course content questions.

Lecture and tutorial materials will also be posted to the OWL course site for use prior to ‘in-person and online lectures and tutorials. Most of the tutorials are can be previewed at the Microsoft Stream Channel link posted in OWL.

The Western Calendar listing of the course schedule is:

Lectures: Monday and Wednesday 12:30 to 1:20 pm

Tutorials: Wednesday 11:30 to 12:20 pm

*****Location for in-person lectures and tutorials is NSC7 Natural Sciences 7.*****

This course has two lecture sessions and one tutorial unit each week. In addition, there are other resource links in the OWL site [required readings, instructional videos for tutorials, and documents].

Course Readings and Deadlines: (see OWL site for calendar schedules with lecture and tutorial topics, associated required readings along with the assignment/quiz due dates). Deadlines are posted to the OWL course website linked to assignments and quizzes with notifications.

List of Prerequisite Requirements

Biochemistry 2280A; Biology 2581B

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course, and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

Associate Professor [Biology]: Dr Kathleen Hill [WSC333] khill22@uwo.ca

Students must use their Western (@uwo.ca) email addresses when contacting the professor using email.

Dr Hill's email may be used for alerts to course accommodations. Direct all course content questions to the OWL forum so that all may benefit from the Q&A. Dr Hill will attend to all queries on the OWL forum.

Office hours:

1] The first step to gain assistance with course content is to post questions to the **OWL Forum** and review the forum for the same of similar questions and answers. The OWL forum will be monitored daily [Monday through Friday] to answer student questions regarding course content. We have also found that student engagement in the forum provides strong teamwork in rapidly addressing questions with clarifications and answers provided by peers. Please note the dedicated OWL forums for 1] General Discussion, 2] Lectures, 3] Tutorials, 4] Assignments, 5] Quizzes, and 6] Final Exam. The instructor and the teaching assistants [TAs] will monitor and attend to the posts to the OWL Forum daily Monday through Friday.

2] **Synchronous Zoom help/office hours sessions** with the instructor and TAs will be announced through OWL course announcements. Western (@uwo.ca email address must be used for attending synchronous Zoom sessions [Zoom will scan and accept only Western email addresses].

Teaching Assistants: There are two teaching assistants assigned to this course. Each will participate in course delivery in person and online for lectures and tutorials. Teaching assistants monitor, moderate, and attend to Packback, zoom chat questions, OWL forum questions and assist with assessments and posting course content. Office hours for teaching assistants are held within tutorials, OWL discussions and the announced OWL zoom help sessions.

3. Course Syllabus, Schedule, Delivery Mode

Course description published in the Western Academic Calendar

Genetic principles and their application to humans. Special attention will be directed to the genetic variation in our species, mutations, mechanisms of gene expression, and novel technologies and approaches to study the human genome.

Antirequisite(s): None **Prerequisite(s):** Biochemistry 2280A; Biology 2581A/B.

Corequisite(s): None **Pre-or Corequisite(s):** None

Extra Information: 2 lecture hours, 1 lecture/tutorial hour, 0.5course

Course OWL Website: <https://owl.uwo.ca/portal>

To access course content: Enter your UWO username and password; Biology 3592a should be a selection in your class list. Students should check OWL (<https://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. **Students are responsible for checking OWL on a regular basis.**

Where to post QUESTIONS

OWL course site FORUM: Questions regarding lecture content and tutorial content are addressed through OWL using the FORUM [monitored weekdays by TAs and instructor]

Teaching Assistants: Pok Man Paul Wan and Matheus Sanita Lima

Assignment Help: For each assignment there are associated online tutorials, workshops, guidelines and rubrics. Contact for assistance is through the OWL course FORUM channels

Course-level learning outcomes:

Key Topics:

- *De novo* mutations, somatic and germline mosaicism
- Historical challenges and future projections for human genetics
- Technologies, models and methods in human genetics research
- Clever experimental designs in human genetics research
- Anatomy of a human gene, human chromosome and human genome
- Glossary of terms commonly used in human genetics
- Chromosomal anomalies
- Mutational mechanisms
- Mobile elements in the human genome
- Genetics and language
- Personalized and precision medicine
- Case studies of human genetic diseases
- Ethical dilemmas in human genetics and genomics

Learning Objectives and Course Outcomes:

On successful completion of this course students will be able to:

- Dissect and comprehend a primary research article
- Perform effective searches in reputable internet sources
- Work effectively in a team
- Construct and interpret pedigree charts
- Use and interpret human chromosome and karyotype nomenclature
- Teach the anatomy of a human gene and The Central Dogma
- Design experiments to detect different types of *de novo* mutations
- Explain how mobile elements alter the human genome
- Describe and illustrate common methods of DNA analysis

- Join the conversation and identify ethical challenges presented by advances in human genetics/genomics research and its translation to the clinic and marketplace
- Define sensitive language
- Identify the science, technology, stakeholders and issues in current bioethics challenges
- Understand, discuss and debate current topics in bioethics associated with human genetic/genomic technologies
- Describe genomic instability associated with cancer
- Describe what is meant by personalized or precision medicine
- Design approaches for solving classification problems using a bioinformatics toolkit

Delivery mode for Fall 2022: “Blended”

Synchronous delivery will be carried out using the weekly two lecture units and one tutorial unit. These sessions will be in-person on campus or online. Delivery mode of asynchronous content will be via the 3592A OWL course site. Synchronous online sessions will be used for office hours/help sessions. These sessions will be announced through the OWL course site.

The break-down of course topics is best viewed using the lecture and tutorial schedules posted to the OWL course site.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently.

Online Participation and Engagement

Critical to benefiting from and excelling in learning is consistent engagement with course material, instructors, teaching assistants and fellow students.

- Students are expected to participate and engage with content as much as possible.
- Students will be given opportunities for participation during sessions and to post on OWL forum discussions and through submission of synopses on lecture content.
- Students will also participate by interacting in the forums with their peers and instructors.

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online as determined by the course instructor.

Remote Proctoring Software may be used in this course in the event of health lock-down

Tests and examinations in this course may in the course of contingency plans be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western’s Remote Proctoring website at: <https://remoteproctoring.uwo.ca>

4. Course Materials

There is no textbook for this course

Instead of a course textbook ‘**Required Readings**’ are used. These readings are recent published reviews and primary research articles used to teach fundamental principles of human genetics in the context of current published research.

The course OWL site (<http://owl.uwo.ca>) contains the following:

Course Outline	Required Readings
Course Calendar	Optional Workshops
Lecture and Tutorial Schedule	Lecture and Tutorial Slides
Tutorial Content	Assignment Guidelines and Rubric
Helpful resources	Assignment preparatory materials

All course material will be posted to **OWL**: <http://owl.uwo.ca>.

Students should check OWL on a regular basis for news and updates. This is the primary method by which information will be disseminated to all in the course. **Students** are responsible for checking OWL on a regular basis. The required reading articles are provided through OWL. The **OWL** course site and will provide lectures, tutorials, supplemental information, and resources essential to the course. **Weekly announcements** will be made through the **OWL email system**. Recommendations for supplemental materials are also provided in this course outline.

If students need assistance, they can seek support on the OWL Help page. Alternatively, they can contact the **Western Technology Services [WTS] Helpdesk**. WTS can be contacted by phone at 519-661-3800 or ext. 83800. WTS online https://wts.uwo.ca/get_help/index.html

Technical Requirements

This course requires students to use a Western (@uwo.ca) email address. This course requires use of the internet. Course content is delivered both online through Western’s OWL software and in-person. Course materials will at times direct you to other **online resources**. To attend virtual office hours **a stable internet connection, and a computer with working microphone is required. A webcam is optional.**

Helpful Zoom Etiquette Recommendations: <https://blog.zoom.us/video-meeting-etiquette-tips/>

5. Methods of Evaluation

Student performance will be evaluated using online **OWL-delivered quizzes, OWL-delivered assignments, OWL forums, and an in-person final exam**. There is no midterm test in this course.

Final Comprehensive Examination: The Final examination is set as an ‘in-person’ proctored examination based on the material covered throughout the course. The exam is held in a 3-hour time slot and typically can be completed in 2.5 hours. The exam uses multiple formats of multiple choice, true/false questions, matching exercise, short answer questions and short essay questions.

See the section above – **Key methods of evaluation and due dates**

Instructions for quizzes and assignments are delivered in lecture or tutorial and posted to OWL. Instructions, resources and rubric will be posted to OWL for the Assignments.

- All assignments are due at [midnight EST] and the due day/date/time within the assignment are to be followed unless otherwise specified
- Written assignments will be submitted to Turnitin. Students will have 2 submissions to Turnitin.
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting the course instructor; to ensure a timely response, reach out within 7 days
- **Questions concerning evaluations are directed to the course instructor [not to teaching assistants and not to OWL forums]. Please use email [khill22@uwo.ca] for questions regarding evaluations.**

Accommodated Evaluations

Quizzes: The top grades for 8 of the 10 quizzes will be used; there are no alternate considerations for excused absences and there are no alternate quizzes offered.

Packback Engagement: Eight of the 10 weekly Packback assignments will be used; there are no alternate considerations for excused absences and there are no alternate Packback offerings.

Assignments: For assignments that are submitted past the due date late penalties will be applied. The late penalty is a deduction of 2% of the final course grade per 24-hr period post due date. A late assignment submission will be accepted up to one week after the assignment due date. There are no alternate assignments; there are no make-up assignments. There is no reweighting of assignments given that each teaches different learning objectives and is not a substitute for other assignments. **For excused absences [approved accommodations] alternate dates are set for the missed deadlines.**

If the special examination is missed, the student will receive an INC and complete the task the next time the course is offered.

Note: Only students submitting work by the due dates will be able to receive evaluation on work totaling 15% of their final grade at least three days prior to the deadline for withdrawal without academic penalty.

6. Accommodation and Accessibility

Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf.

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,

- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

For work totaling 10% or more of the final course grade, you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's medical illness policy at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf.

The Student Medical Certificate is available at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Land Acknowledgment

Please visit the course website for a video presentation by an Indigenous Scholar at Western for Western's Land Acknowledgment and for helpful information in general about Land Acknowledgments. More resources about Indigenous Services are posted to the course website as well.

Western's Land Acknowledgment: We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous peoples (e.g., First Nations, Métis, and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

Note: missed work can *only* be excused through one of the mechanisms above. Being asked not to attend an in-person course requirement due to potential COVID-19 symptoms is **not** sufficient on its own.

7. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

The website for Academic Calendar and Academic Rights and Responsibilities is https://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12

In accordance with policy, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address [https://wts.uwo.ca/identity/identities_and_access/index.html]. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Code of Student Conduct: To foster a supportive and enriching academic environment that is conducive to learning and free inquiry, Western has a Code of Student Conduct, which is available at: <http://www.uwo.ca/univsec/pdf/board/code.pdf>

Students must write their assignments, quizzes and exams in their own words and must not copy other student's work.

TURNITIN - All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>). **All assignments in 3592A upon submission require students to complete the pledge of honour and TURNITIN procedure for assignment submission.**

SCANEX: Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Zoom - Completion of this course will require you to have a reliable internet connection and a device that meets the system requirements for **Zoom to participate in synchronous course components**. Information about the system requirements is available at the following link:
<https://support.zoom.us/hc/en-us>

Remote Proctoring Software may be used in this course, including in the event of health lock-down]

Tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>.

8. Support Services

Please visit the **Science & Basic Medical Sciences Academic Counselling webpage** for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>

Please contact **the course instructor** [khill22@uwo.ca] if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you also may wish to contact: **Student Accessibility Services (SAS)** at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the **Digital Student Experience** website to manage your academics and well-being: <https://www.uwo.ca/se/digital/> .

Learning-skills counsellors at the **Student Development Centre** (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in **Learning Help Centre**, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to **Mental Health@Western** (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the **USC**: <http://westernusc.ca/your-services/>.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Supplemental Background Material – [optional resources]

Helpful online resources:

Genomes [2nd Ed] available online: <https://www.ncbi.nlm.nih.gov/books/NBK21128/>

Relevant chapters recommended: Chapters 1, 2, 4-8, 14.

There are several online texts that contain helpful information and explanations for the fundamental principles taught in this course. The online books have a nice search tool so you can rapidly find text relevant to the course topics. I recommend using this search tool for concepts mentioned in the readings and lectures to help find definitions and helpful figures to explain basic concepts and fundamental principles. *If the links in this course outline fail to directly open, copy and paste the link into your internet browser.*

Modern Genetic Analysis: <https://www.ncbi.nlm.nih.gov/books/NBK21248/>

An Introduction to Genetic Analysis: <https://www.ncbi.nlm.nih.gov/books/NBK21766/>

Help with Writing - Writing Support Centre – Student Development Centre

Home page: <http://sdc.uwo.ca/writing/> - note Zoom appointments can be made! And there is online assistance!

Writing Resources: Writing Support Handouts in Video, Word, and pdf format ready for download
http://www.sdc.uwo.ca/writing/undergrads/writing_resources.html

Online Writing Help: http://www.sdc.uwo.ca/writing/undergrads/online_writing_help.html

Weldon Drop-in Services: http://www.sdc.uwo.ca/writing/undergrads/dropin_services.html

One-to-one Appointments with a writing advisor:
<http://www.sdc.uwo.ca/writing/undergrads/appointments.html>

Professionalism & Privacy:

Western students are expected to follow the Student Code of Conduct. Additionally, the following expectations and professional conduct apply to this course:

- ☒ Students are expected to follow online etiquette expectations provided on OWL
- ☒ All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- ☒ Recordings are not permitted (audio or video) without explicit permission
- ☒ Permitted recordings are not to be distributed
- ☒ Students will be expected to take an academic integrity pledge before some assessments
- ☒ All recorded sessions will remain within the course site or unlisted if streamed

General Online Engagement Etiquette –

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- “arrive” to class on time

- use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- to minimize background noise, mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- [suggested for classes larger than 30 students] In order to give us optimum bandwidth and web quality, turn off your video camera for the entire class unless you are invited to speak
- [suggested for cases where video is used] please be prepared to turn your video camera off at the instructor's request if the internet connection becomes unstable
- unless invited by your instructor, do not share your screen in the meeting

The course instructor will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- If you wish to speak, use the "raise hand" function and wait for the instructor to acknowledge you before beginning your comment or question.
- Please remember to unmute your microphone and turn on your video camera before speaking.
- Self-identify when speaking.
- Please remember to mute your mic and turn off your video camera after speaking (unless directed otherwise).

General considerations of "netiquette":

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. "Flaming" is never appropriate.
- Be professional and scholarly in all online postings. Use proper grammar and spelling. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Packback

Our online community for asking open-ended questions about Human Genetics

Packback Questions

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online community where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications.

Packback Requirements:

Your participation on Packback will count toward 10% of your overall course grade.

There will be a Weekly Sunday at 11:59 PM EST deadline for your week's submissions. In order to receive full credit, you should submit the following per each deadline period:

- 1 open-ended Question every week with a minimum Curiosity Score of 80, worth 33.33% of each assignment grade [Post your Question by Wednesday 11:59 PM]
- 2 Responses every week with a minimum Curiosity Score of 80, worth 66.67% of each assignment grade [Post these prior to the weekly deadline]

How to Register on Packback:

An email invitation will be sent to you from help@packback.co prompting you to finish registration. If you don't receive an email (be sure to check your spam), you may register by following the instructions below:

1. Create an account by navigating to <https://app.packback.ca> and clicking “Sign up for an Account”
Note: If you already have an account on Packback you can log in with your credentials.
2. Then enter our class community’s lookup key into the “Looking to join a community you don't see here?” section in Packback at the bottom of the homepage.
Community Lookup Key: **99bfec55-33e3-4f6f-a0b5-4288fe1a85ad**
3. Follow the instructions on your screen to finish your registration.

Packback may require a paid subscription. Refer to www.packback.co/product/pricing for more information.

How to Get Help from the Packback Team:

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co.

For a brief introduction to Packback Questions and why we are using it in class, watch this video:
<https://www.youtube.com/watch?v=OV7QmikrD68>

If you have concerns about course cost, I want you to know that it is important to me to keep learning accessible, both financially and otherwise. Please send an email to me and I will be sure you receive support, no matter the circumstances.