

ANTHROP 4GS3: GENETICS AND SOCIETY Fall 2019

Instructor: Hendrik Poinar
Email: poinarh@mcmaster.ca
Lecture: Tues 2-5pm, in ABB B-118

Office: MDCL 2239 (In the Institute for Infectious Disease).
Office Hours: Thursdays 12:30-2:30*

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Course Description

The term “genetics” is a loaded word. At the extremes, some believe the word encapsulates the future of medicine and the panacea for the control and cure of harmful diseases. To others it is seen as a harmful misused power that has a questionable past and will be improperly used in the future. For many of us, there are grey areas between these extremes. This class will explore these areas and how society perceives the terms and technologies, with an emphasis on their impacts (both positive and negative) at home and across the globe. In this way, we will build a familiarity with the powers and limitations of genetics (i.e. theories and testing).

Intended Learning Outcomes (ILOs)

By the end of the course you should be able to:

1. Understand the factual and conceptual basics of DNA and genetics, such as inheritance, evolution, and human variation. We will build upon this knowledge base as needed as we move through different topics and concepts in the course.
2. Speak meaningfully about the pros and cons of genetics research in various academic and commercial settings.
3. Consider the ethics of DNA analysis and its use in commercial and academic settings.
4. Analyze the portrayal and use of genetics in popular culture and society through media articles, criminal cases, personal identity, etc.

You will:

5. Hopefully develop Critical Thinking Skills through active discussions and participation in class, and in particular through your discussion posts on Avenue.
6. Use and develop your presentation skills through the creation and presentation of a presentation on a topic relevant to the course.

Required Materials and Texts

- No required text for the course. We will be using journal articles and media articles for material for our discussions. Links to these articles will be provided in the folder for their respective week on Avenue to Learn (A2L).
- If you have a laptop, please do bring it to class. Our classes are in an active learning classroom and students are able (and are encouraged) to connect their computer to present different ideas, concepts, or relevant articles that engage the discussion. If you do not have a laptop, please note that you will not be excluded from this opportunity. You may share the links, or email me the document you want to show the class. I'm happy to present them to the group.

Class Format

This course will primarily be seminar and discussion based. The first few weeks I will introduce key concepts on genetics, heredity and population genetics so that you will be equipped to engage in discussions in the weeks that follow. Subsequent classes will involve discussions around various topics based on (provided) readings, entertaining in-class guests (visitors), view relevant films, etc. It is critical that you do, *at minimum*, the required readings and thus come prepared to engage critically in class. Throughout the course, we will also regularly be engaging in active learning activities.

Course Evaluation

Assessment	Due Date	Weight
1. Participation	Expected each class	20%
2. Critical Review	October 8 th	15%
3. Presentation outline	October 22 nd	20%
4. Presentation	Last 3 weeks (see below)	35%
5. Peer Evaluation of Presentations	“	10%
		TOTAL: 100%

Course Evaluation – Details

Participation (20%), expected each class

This is a fourth-year seminar course, and participation is expected of everyone. Discussions are a way for you to take command of the knowledge and apply them to different and appropriate scenarios.

Participation grades will be assigned based on participation in class discussions. Attendance will be taken, but does not guarantee full participation marks. Grades will take into account the frequency and degree of preparation demonstrated by the responses given, as well as the ability to address questions posed by the instructor/guest or your colleagues.

Assignment 1 Critical Review (15%), due November 19th (in class)

Given the topics we've discussed (or will be discussing) throughout the course, I'd like you to find a popular media article (there are many places to look) that discusses/mentions/misuses/threatens genetics 'within/upon' society. Carefully read the

article and any original article it's referencing and then discuss the potential impact, disconnect within the larger framework of/for society and a public both educated (in genetics) and one that is not (more common). How is the original article being framed? What's the context? What's the potential impact or intended purpose on the public and more generally on society at large? Write a short (max 2500 words) critical review of the depiction, including the piece's scientific accuracy, intended effect on society as presented, and if appropriate the actual effect it may/might have (had). This assignment is meant to provide an opportunity to think critically about the topic and representations of genetics we see today in society and their ultimate ramifications.

Assignment 3 – Presentation Outline (15%), due October 22nd and 29th (in class).

The presentation outline is a two-part assignment, whose purpose is to provide constructive feedback on your planned final presentation. The first part, is a quick 5 min in class presentation– in which you give the 'elevator' pitch for your planned presentation. There are no slides, ppts or overheads, simply use your skilled art of persuasion to convince me and your colleagues that you've found the perfect topic for your larger, end of term presentation. The class and I will give you immediate feedback on your topic. The second part is a written two-page (max) outline (1.5x spaced), in which you suggest the narrative arc of your planned presentation. It should include the following: Title, brief introduction to the topic/subject, the main message or work to be presented, the articles you will draw from and a brief concluding statement. I will provide you feedback, via email within a week (so make sure to include it in your outline) so that you are able to move forward with your final presentation.

Assignment 4, Final Presentation (35%), November 18th, 25th and December 3rd (in class, 8 presentations per class). This is an in-class 20-minute presentation (with 5 minutes for questions, I call this the 15-5), on the topic you've presented earlier to the class, in the form of your outline (to which we've hopefully provided constructive feedback). The presentation style/activity is open to your interpretation. Thus, while the allowed time remains strict (15-5), I implore you to find/use any creative means/media/medium to dispense your wisdom to the class. Remember we have purposely engaged an active learning class room, so you will have access to multiple screens, white boards etc, please use these to your advantage. You will be partially graded on the creativity of your presentation/activity. More details to follow.

Assignment 5 Peer Evaluation of Presentation (10%) (in class on day of presentations)

As part of your final mark you will be required to assess your peers' presentations using clearly defined criteria (I will provide these to you as time nears) and you will be evaluated based on the feedback you provide. These will be anonymous in the sense that the peer you evaluate will not know who conducted the review. These evaluations will be done during presentations in the final classes and I expect you to email your

feedback in the provided form to me by the end of the day of the presentations. Please note that I will be taking these evaluations into account when marking your peers' posters, so be respectful and fair but don't shy from critique. The evaluation notes from all reviewers will be sent (again, anonymously) to your colleague for their edification.

Weekly Course Schedule and Required Readings

Week 1 (September 1st)

September 3rd – Introduction

Readings: None!

Week 2 (September 9th)

September 10th – Basics of Genetics, Heredity and Human Population Genetics/Genomics

Readings: To be placed online at A2L

Week 3 (September 16th)

September 17th – On Our Origins: Neanderthals, Interbreeding and the Meaning of being “Human”

Readings: To be placed online at A2L

Week 4 (September 23)

September 24th – A Brief History of Genetics; Eugenics and it's relevance to Race and Genetics

Readings: To be placed online at A2L

Week 5 (September 30)

October 1st – Forensic DNA Testing, Personal Identification and Ethics of DNA Databases

Readings: To be placed online at A2L

Week 6 (October 7)

October 8th – Making Money from DNA, Ancestry & Paternity Testing, the Meaning of Identity from a Genetics POV

Readings: To be placed online at A2L

Notes: We will watch a film in class entitled – Data Mining the Deceased

Week 7 (October 14 - 20)

Reading Week

Week 8 (October 21)

October 22 – Guest speaker – Dr. Julia Creet – on ‘The Perils of Ancestry Testing and the Lack of Privacy in our Dystopian World!’

Readings: To be placed online at A2L

Notes: Dr. Creet is Professor of English at the York University

Week 9 (October 28)

October 29th – Presentation Outlines

Readings: None

Week 10 (November 4)

November 5th – Genetically Modified Organisms (GMOs), Black and White?

Readings: To be placed online at A2L

Week 11 (November 11)

November 12th – Personalized Genomics and Medicine

Readings: To be placed online at A2L

Week 12 (November 18)

November 19th – Presentations I

Readings: None

Notes: Presentations 1 – 8. You will be required to assess your colleagues’ presentations. I’ll provide a rubric for grading the presentations on A2L.

Week 13 (November 25)

November 26th – Presentations II

Readings: None

Notes: Presentations 9 – 16. You will be required to assess your colleagues’ presentations.

Week 14 (December 2)

December 3rd – Presentations III

Notes: Presentations 17 – 24/25. You will be required to assess your colleagues’ presentations.

Course Policies

Expectations for Students and Instructor - *To be discussed and further established in the first class.

Student expectations	Instructor expectations
<p>Your learning – it is your responsibility to keep up with the readings – do not leave them until the night before the exams. Attendance in this class is mandatory. You are expected to think about the readings and integrate them into the information and concepts presented during lecture and in the discussions.</p> <p>Classroom – Please do not be afraid to ask questions or provide constructive comments! If you do not understand something, or if I have gone over a concept too fast, stop me and ask a question. Chances are if you do not understand something, other people in the class are in the same position. Please listen and respect others during the course. The classroom is a safe space.</p> <p>Please ensure that cell phones are turned off or on silent (including text messaging, Twitter, etc...) and please arrive on time for class. If you do have to leave, do so with minimal disruption to the others.</p> <p>Laptop computers can/should be used in class for taking notes and are encouraged to be used to show any new material (news articles, advertisements, etc.). But, please don't use your computer for other purposes (e.g., checking Instagram...). Be respectful of others!</p>	<p>Your learning – it is my responsibility to come prepared to class each week to facilitate the discussions and teach (when necessary) on the material for that week.</p> <p>Classroom behavior – I will do my best to enthusiastically discuss and facilitate the material in each class. I will be open to any and all questions made during class or sent in emails.</p> <p>I will listen and be respectful of student's views especially if they conflict with those that are presented as mine.</p> <p>Cell phone – I promise to have my cell phone on silent during class and to not use it. The exception for this will be when I use it for a timer during active learning activities.</p> <p>Availability – I will be available during my office hours each week (unless away), as well as for appointments at other times if the posted office hours do not work for your schedule. I will be in class on time.</p> <p>Grading and Assignments – I will grade objectively, consistently and in a timely manner. I will accommodate for differences in students' learning.</p>

Please remember, if you have any questions, comments or concerns, to let me know right away. I welcome any feedback that you may have. I will also periodically open up the floor in class for feedback on activities and assignments.

Submission of Assignments

All assignments should be submitted digitally via Avenue to Learn. Assignments will not be accepted in any other form (unless stated otherwise), and if students encounter errors with submitting assignments on Avenue they will be expected to notify me prior to the deadline.

Please have all assignments (apart from the poster) written in Times New Roman, 12-pt font with 1 inch margins. You may use any citation style of your choosing (APA, AAA, etc.), just remember to be consistent throughout your document.

Grades

Grades will be based on the McMaster University grading scale:

MARK	GRADE
90-100	A+
85-90	A
80-84	A-
77-79	B+
73-76	B
70-72	B-
67-69	C+
63-66	C
60-62	C-
57-59	D+
53-56	D
50-52	D-
0-49	F

Late Assignments

A penalty of 5% per day will be applied to late assignments (that were not discussed with me at least one day prior to the deadline) for a **maximum of 4 days**, including weekends. After 4 days, assignments will no longer be accepted, and a grade of zero will be assigned.

Absences, Missed Work, Illness

Students who will be absent from class or expect to miss work for any reason should notify me prior to the class time or deadline. Extensions may be granted for illness, provided students discuss this with me at least one day before the deadline. In the event of an absence for medical or other reasons, students should review and follow the

Academic Regulation in the Undergraduate Calendar, “Requests for Relief for Missed Academic Term Work.” If you have any questions about the MSAF, please contact the Associate Dean’s office.

[http://academiccalendars.romcmaster.ca/content.php?catoid=11&navoid=1698#Requests for Relief for Missed Academic Term Work](http://academiccalendars.romcmaster.ca/content.php?catoid=11&navoid=1698#Requests_for_Relief_for_Missed_Academic_Term_Work)

Course Materials and Avenue to Learn

In this course we will be using Avenue to Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

Lectures will be presented using Power Point, **abbreviated** versions of which will be posted weekly on A2L. Grades will also be posted on A2L. You must be registered in the course to have access to the 4GS3 site.

University Policies

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at www.mcmaster.ca/academicintegrity.

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Policy for [Academic Accommodation of Students with Disabilities](#).

Religious, Indigenous and Spiritual Observances (RISO)

The University recognizes that, on occasion, the timing of a student's religious, Indigenous, or spiritual observances and that of their academic obligations may conflict. In such cases, the University will provide reasonable academic accommodation for students that is consistent with the Ontario Human Rights Code.

Please review the [RISO information for students in the Faculty of Social Sciences](#) about how to request accommodation.

Requests for Relief for Missed Academic Term Work

McMaster Student Absence Form (MSAF)

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

On-line Elements

In this course we will be using Avenue to Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Privacy Protection

In accordance with regulations set out by the Freedom of Information and Privacy Protection Act, the University will not allow return of graded materials by placing them in boxes in departmental offices or classrooms so that students may retrieve their papers

themselves; tests and assignments must be returned directly to the student. Similarly, grades for assignments for courses may only be posted using the last 5 digits of the student number as the identifying data. The following possibilities exist for return of graded materials:

1. Direct return of materials to students in class;
2. Return of materials to students during office hours;
3. Students attach a stamped, self-addressed envelope with assignments for return by mail;
4. Submit/grade/return papers electronically.

Arrangements for the return of assignments from the options above will be finalized during the first class.

Course Modification

The instructor and university reserve 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, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.