



More than 30% of inmates in Canadian prisons are Indigenous. Aboriginal people make up just 5% of the country's population.¹



Attendees at a Black Lives Matter rally at Toronto police headquarters on 26 March. Blacks make up 8.8% of Toronto's population, but are nearly 20 times more likely than a White person to be involved in a fatal shooting by the Toronto Police Service.² Photograph: Steve Russell/Toronto Star via Getty Images.

Anthropology 305: Human Variation and Adaptation (Fall 2020)

Professor: Dr. Warren Wilson

Lecture: Tue. & Thu., 12:30-13:45- synchronous via Zoom

TA: Madelyn Knaub

E-mail: wwilson@ucalgary.ca

Office hours by appointment

E-mail: madelyn.knaub@ucalgary.ca

Office hours by appointment



Members of the bissu in Indonesia. Photo by Darren Whiteside/Reuters



Human Geographic Project (migration mapped with genes)



A Bajau diver spearfishes in Sulawesi. Photo: Melissa Ilardo

How can you get in touch with the TA or me?

1. If you have a question, it may already be answered in this this syllabus, course assignment documents, course rubrics, or the discussion boards. Check there first. If not, consider posting your question on the Discussion Board for individual students. Both your TA and I will monitor the Discussion Board and attend to questions regularly.
2. If your question is specific to your personal situation, or if you need a response quickly, please feel free to [send your TA or me an email](#).
3. When writing, please write 'ANTH 305' in the 'Subject' portion of the email. In the body of your message please provide your first and last name and use proper, not text-message, grammar. By identifying the subject of your email and writing a clear message, you will help me to reply more efficiently to your emails
4. If you want to make an appointment, please indicate the times when you are available.
5. We will do our best to reply within one business day.

¹ [One third of Canada's prisoners are Indigenous](#)

² [Inquiry into racial profiling and racial discrimination of Black persons by the Toronto Police Service](#)

Course Calendar Statement: Some of the major problems involved in interpreting modern and recent human diversity. Emphasis on the interaction between human cultural and biological systems and on cultural influences upon human biological diversity.

How do humans vary? Does it matter?

In *Natural History*, Roman scientific writer Pliny the Elder (AD 23/24 – 79) remarked that, although human countenance is made up of only “ten parts or a little more,” people were so fashioned that “among the many thousands no two exist who cannot be distinguished.” Pliny’s words still resonate with us in 2020 as we seek to make sense the differences between people in the face of [COVID19](#) and [protestors crying out for social justice](#). How are we to explain this rich multiplicity of human physical forms? [Anthropology](#) can assist us in our efforts to answer this question. Anthropologists investigate the nature and causes of human variation as well as those characteristics that are common to all of humanity. In this course we will consider human variation from the perspective of the anthropological sub-discipline [biological anthropology](#) which focuses specifically on human biological variation. Biological anthropologists recognize that contemporary human variation can be explained by the interaction between biology and culture. Hence, our work is informed by evolutionary theory, biology, human evolution, the study of non-human primates, and the cultural context in which we find the variation (Figure 1).

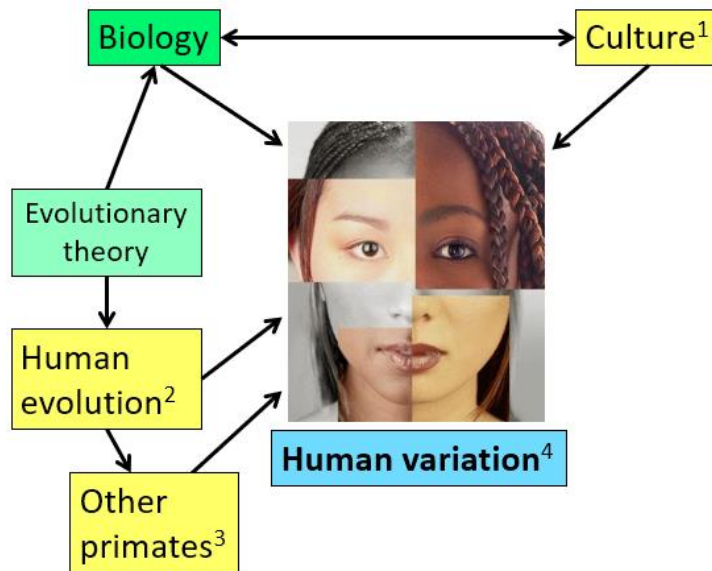


Figure 1: Variables which inform our understanding of contemporary human variation

(¹Cultural anthropology, ²Paleoanthropology, ³Primates, ⁴Human Population Biology... All are subdisciplines of biological anthropology!)

Utilizing the perspective of biological anthropology, the goal of this course is to introduce you to the scientific study of human variation (Figure 2). We will begin with a consideration of the origins and impacts of the concept of race and follow this with an overview of the scientific method and the anthropological approach to the study of human variation. We will then cover the biological bases of human variation in discussions of genes in human populations, the heritability of traits, and population genetics. In the latter part of the course we will look at human variation as the outcome of adaptation to a variety of environmental challenges. This course should help you to understand the biology underlying the variation of human physical and psychic forms and to sort fact from fiction in the contentious and clouded debates over human variation.

So, does this matter? Does this material have any bearing upon your life? I wouldn't teach this if I didn't strongly believe that it does. Do not, however, take my word for it. Ask these questions every time you engage with this course. I'll be curious to hear your answer when the course wraps up!

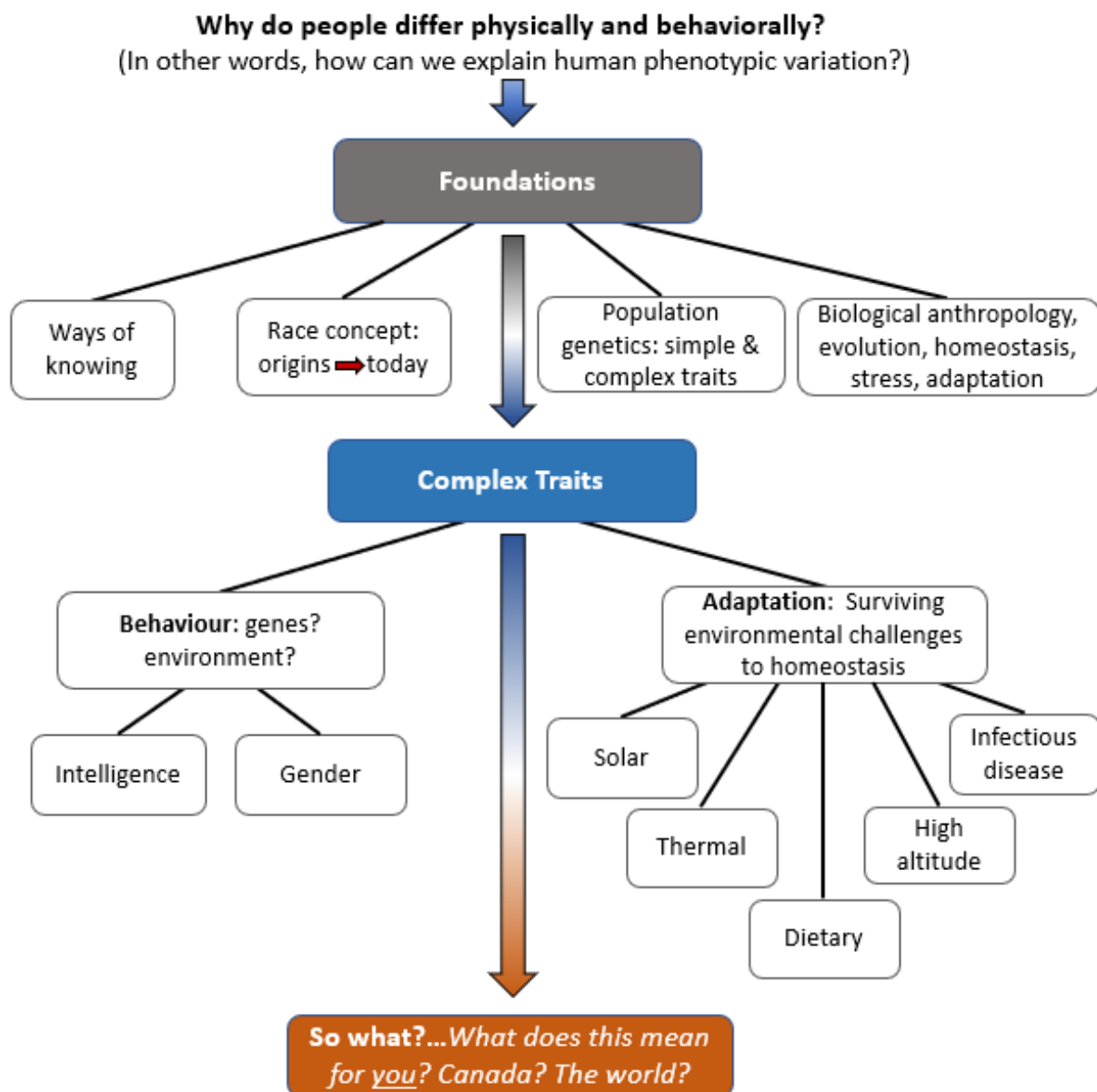


Figure 2: Course Map

Learning Objectives

Upon completion of this course, you should be able to:

1. describe the goals and methods of the social and natural sciences and the humanities,
2. describe the history and current scientific understanding of the concept of race,
3. explain how a misunderstanding of human variation played a role in eugenics & the Holocaust,
4. describe sources of human phenotypic variation, in general,
5. describe the history and current scientific understanding of intelligence testing,
6. describe our current understanding of the variables that influence gender,
7. describe the three levels of human adaptation to stress,
8. describe how humans adapt to solar radiation, cold & heat stress, undernutrition, hypoxia, and infectious disease,
9. describe how & why human population growth rates have changed in the past 12,000 years,
10. *link the knowledge obtained in this course to your everyday life and events in the news.*

Teaching Philosophy¹

In this course I do not seek to provide you with an intellectually safe space; rather I endeavor to challenge you with new ideas with which you will have to engage to reach your own informed conclusions. Students in my classes are encouraged to speak, write, listen, challenge, and learn, without fear of censorship. That said, civility and mutual respect are vital to all of us, and freedom of expression does not mean the freedom to harass or threaten others. I consequently expect you to be engaged in evidence-based, rigorous debate, discussion, and even disagreement with one another **and me**. At times, this may challenge you and even cause discomfort. Indeed, as we will consider some of the most horrific acts of inhumanity that have arisen due to human variation, such as sexual and physical violence and assault, racism, sexism, discrimination based on sexual orientation, genocide, war, the physical and psychological abuse of children, suicide, and drug and alcohol abuse, this course should be unsettling. Our consideration of these domains is not gratuitous: a failure to understand the basis and potential for such acts puts us at risk of repeating them.

¹ For more on my teaching philosophy, please see: Delbanco, A (2012) What is college for? *Continuing Higher Education Review* 76:11-19. <https://files.eric.ed.gov/fulltext/EJ1000647.pdf>

Course Conventions

1. Modality: This course will take place online via Desire2Learn (D2L) and Zoom. To best succeed in the course, you are encouraged to participate in the asynchronous learning tasks using the D2L learning environment and synchronous Zoom sessions. When unable to participate live due to the time difference or unforeseen circumstances, inform the instructor in advance and propose and implement propose an alternative participation activity (e.g., watch the recordings, submit a brief reflection, and actively contribute to the follow-up online discussion). All classes will be held synchronously (see 'Schedule' below).

2. Synchronous Zoom class meetings: In order to meet the goals of the course you have to attend Zoom classes regularly to class and ON TIME. Be prepared by reading what is assigned for the day. You are responsible for lecture and discussion material and any announcements concerning changes in schedule, etc. Please note that my lectures are not a summary of the material presented in the readings, videos and podcasts and that, on the balance, exam questions will be drawn from material emphasized in lecture. I'll add that while I have endeavored to learn as much as I can about effective teaching online, this is new territory for me. So, please bear with me when I stumble! I'll always being doing my best.

3. Guidelines for Zoom: When entering a Zoom session, you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behaviour in Zoom may affect others. To help ensure Zoom sessions are private, do not share the zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

Getting the Most out of Zoom Classes

- Close other programs on your device, that are not pertinent to the class.
- Make sure you have adequate headphones that allow you to speak and hear the instructor.
- Attend Zoom sessions from a quiet place. [Set up a Zoom background](#) if there is activity going on behind you.
- Keep your microphone on mute unless it is your turn to speak.
- If enabled by the instructor, use the [chat function](#) to ask questions and participate during a session.
- Watch for [Zoom fatigue](#): multiple classes in Zoom can be fatiguing given the demanding visual cues our brains try to process. The following tips can help manage Zoom fatigue:
 - ◆ Choose "Speaker View" so you can focus your attention on one speaker
 - ◆ If possible, attend Zoom classes in a quiet environment with minimal distractions
 - ◆ Take breaks from looking at the screen to give your eyes a rest, focus on taking notes, or at a focal point away from your screen while you listen.
 - ◆ If possible, take breaks from screens between Zoom sessions and [practice Zoom wellbeing](#).

It is recommended that you follow these guidelines when attending Zoom sessions, but even with the best protections inappropriate activity may occur. If an incident occurs during your session that affects your learning or ability to focus or participate, talk to me. Should you suspect your class has been disrupted by individuals outside of the class, or a security incident has occurred you can report incidences to IT Security. Contact the IT Support Center at 403.220.5555 or itsupport@ucalgary.ca.

Examples of disruptive activity could include the following:

- Zoom bombing, which is the practice of unauthorized individuals entering a zoom meeting for the purpose of creating disruptions or perpetrating other malicious activity
- Students sharing the session password or link publicly
- Inappropriate activity by legitimate participants in the session

Identification of Individuals using Zoom

We are aware that some individuals are changing their display names in Zoom, which makes it difficult for instructors to ascertain genuine members of the class, to deal with inappropriate behaviour as well as judging contributions for assessment. In addition, it has been reported that some names could be construed as offensive.

The use of videoconferencing such as Zoom as tools to connect with one another in teaching and learning activities and meetings as part of the business of the University of Calgary relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith, and respect (as per the [Code of Conduct](#)). The vast majority of our community do so, but we have a very small minority of cases where this is not the case and is negatively affecting the learning experience or meetings. Participants are required to use names officially associated with their UCID (legal or preferred names listed in the student centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters or meeting invites. Non-compliance may be investigated under relevant University of Calgary conduct policies. If participants have difficulties complying with this requirement, they should email the organizer of the class/meeting explaining why, so the organizer may consider whether to grant an exception, and on what terms.

4. Prerequisites: One of Anthropology 201, Archaeology 203, or Biology 205 or 241. You must have a basic understanding of molecular genetics, the inheritance of simple (Mendelian) traits, evolutionary theory, *and* human evolution prior to taking this course. If you are concerned about this, please contact me during the first week of classes.

5. Learning Resources: : reading assignments will be found both in the textbook, Kormondy & Brown, 1998. *Fundamentals of Human Ecology* (available as a course pack from Bound & Copied in the MacEwan Student Centre), and online in the "Course Documents" section of the class Desire2Learn website. In addition to the required readings, recommended readings are often provided to enhance your knowledge of the subject in question. Keep in mind that *you are not finished with the reading, podcast, or video assignment until you thoroughly understand it*. This will sometimes require you to read, listen to, or watch the assigned material more than once. An

effective way of ensuring comprehension is to read, listen to, or watch the assignment then go back through it and summarize its main points and supporting evidence in your notebook.

6. Content Warning: As I note above in my “Teaching Philosophy” section, some of the materials and topics in this class will include explicit content (violence; sexuality; profanity; blasphemous, objectionable or illegal conduct). If you feel any materials may cause you distress or severe discomfort, you are encouraged to speak with me or the teaching assistant and/or take measures to ensure that you feel braver in the classroom. You will not be exempt from any assigned work, but we will gladly work with you to accommodate your concerns.

7. Evaluation: You will be evaluated based on your performance on three rounds of structured discussion boards which you will complete in groups, two midterm exams, and a reflective journal. Rubrics for each of these can be found in D2L in [Assessments > Rubrics](#). The assignments for the structured discussion boards and reflective journal can be found in D2L in [Content > Assignments Discussion Board and Journal](#). Deadlines for assignments can be found below in the course Schedule.

Guide to Exams:

- The two Mid-term Exams will be found in D2L in the [Assessments > Quizzes](#) on the day of the exam.
- At least six days prior to each exam I will hand out a list of key terms and concepts that will be covered on the exams. In preparing for each exam, you should not define each key term in isolation; rather, define and understand it in relation to the other key terms within the context of the course.
- For both exams you will have 75 minutes to complete 75 questions (plus 38 minutes extra as required in case of tech difficulties = 113 minutes total).
- The majority of questions will be multiple choice format with a small number of short-answer questions. Multiple choice questions will have either 4 or 5 possible answers.
- One question will appear at a time and you cannot scroll forward or backward through the questions, you must answer each question when it appears and move on to the next.
- The tests will be accessible to you from 12:01 am to 11:59 pm on the dates above (Oct. 8 and Dec. 1). Once you start your test it will stay open until you answer all of the questions or for 113 minutes, whichever comes first.
- Keep track of the time, as the exam will close after 113 minutes, whether you have answered all of the questions or not, just as it would if you were writing it in class in person.
- Do not logout until after you have answered all of the questions as you have one attempt only, you will not be able to get back in. You can take a break and walk away from your computer if you like but do not logout.
- You may consult your personal notes and readings while completing the tests, but not the internet. In other words, you are not permitted to google terms or questions. Also prohibited: communicating with other people in any way (remote or in person) during the test, sharing test information during or after you have taken the test, capturing (screen shot or photo) images of the questions, or sharing images of questions. A failure to abide by these guidelines would constitute a breach of [academic integrity](#) with detrimental repercussions.
- **Why is the exam available to you for 24 hours?** This 24 hour window is intended to allow you to find the best time (fewest distractions etc) and place (good computer and Wi-Fi connection) for you to take the test. It is up to you to ensure that you have a good space to work in, with

access to a decent device and a secure internet connection, to take the test. We cannot accommodate problems that derive from you not having prepared for this in advance. This is why you have a 24 hour time frame to take the test.

- We do not answer questions during exams in regular in person classes and likewise will not be answering questions during tests or the exam in this class. This means that everyone has access to the same information and we do not provide additional information or clarification to some students and not others. Questions or concerns will be handled via email in the days following the tests.
- Please do not send email inquiries about the test on the test day. Wait until at least the next day.
- The University is working hard to understand and accommodate the stress that students are facing during this pandemic and the necessary remote learning/testing environment. Please respect that this is being done to support you, and choose to behave with integrity.
- Students needing an in-term deferred exam must provide a valid excuse. Valid excuses are only those outlined by the University of Calgary policy for examinations and tests. A request for deferral should be sent to the instructor within 24 hours of the missed test.
- There is no final examination for this course

Grade Reappraisal: Within two weeks of the date the exam is returned, students seeking reappraisal of examinations or assignments must submit a written response to me explaining the basis for reconsideration of their mark. I will reconsider the grade assigned and will then book a time with the student to discuss his or her work and rationale. It should be noted that a reconsidered mark may be raised, lowered, or remain the same. Neither your teaching assistant nor I will talk to you about your exam the day it is posted

Deferred term work: Please note that requests to defer term work past the end of a term go through the [Student Success Centre](#) and must be processed by the deadlines that are established in the University of Calgary Calendar. To defer term work, complete the required [form](#) and submit it to the Faculty of Arts Associate Dean (Students) through the [Student Success Centre](#). To make an appointment with the Associate Dean, phone (403) 220-3580. Only the Associate Dean approves requests for deferrals which extend beyond the end of a term. Neither your TA nor I are involved in such decisions.

Your final grade will be calculated as follows:

Item	Weight
Mid-Term Exam #1	25%
Mid-Term Exam #2	34%
Structured, Online Discussion Board	23%
Reflective Journal	18%

A passing grade is not required on any particular component for the student to pass the course as a whole; that is, a student may fail, for example, Exam #1 or any other component and, assuming their overall average percentage earned for the course is above 49, they will pass the course.

Letter grade assignment: At the end of the course, the numerical marks will be summed, and a final letter grade will be assigned based on the following basis:

Grade Breakdown

A+ 100 - 94.9%	B 79.8 - 74.9%	C- 62.8 – 58.9%
A 94.8 - 89.9%	B- 74.8 – 70.9%	D+ 58.8 – 54.9%
A- 89.8 - 84.9%	C+ 70.8– 66.9%	D 54.8 – 49.9%
B+ 84.8 – 79.9%	C 66.8 – 62.9%	F 49.8% and below

Per the [University of Calgary Calendar](#), an “A” is earned for “superior performance, showing comprehensive understanding of subject matter”. Superior performance is, by definition, rare; that is, superior is defined as “highest in quality”. More common is the grade of “B” which is earned for “clearly above average performance with knowledge of subject matter generally complete”. More common still is the grade of “C” which is earned for a “basic understanding of the subject matter”. If you require clarification on letter grade assignments, please contact me within the first two weeks of the semester. Keep in mind that, you have paid for the opportunity to learn, not a grade. As such, my teaching assistant and I do our utmost to ensure that you have the best possible learning opportunity in this course.

8. Office Hours: I enjoy conversations with students. Whether you would like to discuss in greater detail something that was touched on in class or the assigned material or are having difficulty with some aspect of the course, both my TA and I are happy to meet as necessary.

9. Academic misconduct: The University expects Students to conduct Academic Activities with integrity and intellectual honesty and to recognize the importance of pursuing and transmitting knowledge ethically. “Academic Misconduct” includes such things as Cheating, Falsification; Plagiarism (including the use of other students’ work posted online), Unauthorized Assistance and failure to comply with exam regulations or an Instructor’s expectations regarding conduct required of Students completing academic assessments. Academic Misconduct is a serious form of intellectual dishonesty with significant consequences. Students who participate in, or encourage the commission of, Academic Misconduct will be subject to disciplinary action which could include Probation, Suspension, or Expulsion from the University. For more information see the [Student Academic Misconduct Policy](#).

10. Learning Technologies and Requirements: There is a [D2L site](#) for this course which contains required readings and other relevant class resources and materials. In this online course, students are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection.

Most current laptops will have a built-in webcam, speaker and microphone.

I appreciate that not all students can afford this without some financial assistance. A few options for financial assistance can be found [here](#).

11. Intellectual property: Lectures, demonstrations, performances, and any other course material provided by an instructor includes copyright protected works under the Copyright Act and all forms of electronic or mechanical recording of lectures, laboratories, tutorials, presentations, performances, electronic (computer) information, the duplication of course material, and to the translation of recordings or transcriptions of any of these materials to another form by electronic or mechanical means by students is not permitted, except.

- As a formal accommodation as assessed by the Student Accessibility Services and only for individual private study and only at the discretion of the instructor.
- With the permission of the instructor, students without a formal accommodation may audio record lectures, provided that the student and instructor sign a release form available from departmental and faculty offices. A copy of the Release form shall be retained by the instructor and by the department in which the course is offered. Any audio recording by students is permitted only for the purposes of private study by the individual student. Students may not distribute, email or otherwise communicate these materials to any other person.
- For any other use, whether by duplication, transcription, publication, sale or transfer of recordings, written approval must be obtained from the instructor for the specific use proposed.
- Any use other than that described above (e.g. distributing, emailing or otherwise communicating these materials to any other person, constitutes academic misconduct and may result in suspension or expulsion.
- Students are encouraged to make notes of classroom discussions, lectures, demonstrations etc.
- See “**Copyright Legislation**” below

12. Copyright Legislation: All students are required to read the [University of Calgary policy on Acceptable Use of Material Protected by Copyright](#) and [requirements of the copyright act](#) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

13. Academic Accommodations: It is the student’s responsibility to request [academic accommodations according to the University policies](#). Students requesting an Accommodation on the basis of Disability are required to register with Student Accommodation Services by submitting a Request for Accommodation in accordance with the [Procedure for Accommodations for Students with Disabilities](#). Student Accommodation Services will issue a Letter of Accommodation which must be presented to either designated contact person within the Department or the appropriate Instructors within 10 days of the beginning of term. Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their Instructor or the Department Head/Dean or to the designated contact person in their Faculty.

14. Support: If you need support beyond that provided by your teaching assistant or me, you are encouraged to take advantage of some of these resources:

[SU Wellness Centre](#) (403-210-9355 / 403-266-4357)

[Calgary Communities Against Sexual Abuse Hotline](#) (403-237-5888)

[Alberta Mental Health Hotline](#) (1-877-303-2642)

Trained peer supporters are also available on campus through:

[Women's Resource Centre](#) (4th Floor, MacEwan Centre, in The Loft)

[Q Centre for Gender and Sexual Diversity](#) (2nd Floor, Mac Hall, near The Den).

As well, if you have a serious concern about my conduct, you may speak in full confidence to either the Head of the Department of Anthropology and Archaeology, [Dr. Peter Dawson](#), or the Associate Dean, Undergraduate Programs and Student Affairs, [Dr. Melissa Boyce](#).

15. Freedom of Information and Protection of Privacy

The University of Calgary is committed to protecting the privacy of individuals who work and study at the University or who otherwise interact with the University in accordance with the standards set out in the Freedom of Information and Protection of Privacy Act. The Department of Anthropology and Archaeology keeps exams and any term work not picked up for a minimum of one year after which it is destroyed. Please refer to [this link](#) for detailed information.

Treaty Acknowledgement: The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which includes the Blackfoot Confederacy (comprised of the Siksika, the Piikuni, and the Kainai) as well as the Tsuut'ina and the Stoney Nakoda (including Chiniki, Bearspaw, and Wesley First Nations). The University of Calgary is situated on land adjacent to where the Bow River meets the Elbow River. The University recognizes the traditional Blackfoot name of this place, Moh'kíns'tsis, now known as the City of Calgary. The University recognizes that the City of Calgary is also home to Region III of the Métis Nation of Alberta. By virtue of the 1877 signing of Treaty 7, the university recognizes that we are all treaty people. The City of Calgary is home to a culturally diverse community. Together, we share this land, strive to live together, learn together, walk together, and grow together "in a good way." *ii' taa' poh' to' p*

Schedule¹

Item	Date	Topic	Assigned Readings, Films, & Podcasts ²
Class 1	Sep. 8	course goals & mechanics; introductions; Why bother learning about human variation?	course syllabus, Understanding Science; Kristof; Implicit Association Test- Race
Class 2	Sep. 10	Ways of knowing- humanities, social sciences, natural sciences, humanities, science, anthropology; Morton	Culotta; Canadian Race Relations; and <i>either</i> Akpan <i>or</i> Wiesel. <i>Optional: Lipstadt; Gladstone; Critchley; Statistics Canada; Weintraub.</i>
Class 3	Sep. 15	The race concept: origins	Marks; Appiah. <i>Optional: Bauer & Blumenthal; Milgram; SSRC; Amodio</i>
Class 4	Sep. 17	The race concept: origins	Race the Power of Illusion; U. Utah – SNPs; <i>Optional: Barbujani et al; Disotell; Whitman.</i>
Assignment	Sep. 21	Discussion Board Topic 1: Group response A due	
Class 5	Sep. 22	The race concept: Why do scientist reject it? Implications of race concept	Demby; Scheiber & Abrams. <i>Optional: Rutherford, Rosenberg</i>
Class 6	Sep. 24	Genetic variation: human genetic diversity & sources of genetic variation	Groopman; Lewis (Multifactorial Traits)
Class 7	Sep. 29	Patterns of Inheritance: simple & complex traits	Lewis (Beyond Mendel's Laws); U. Utah – Genomic Imprinting; U. Utah – Epigenetics & Inheritance; Ghost in Your Genes. <i>Optional: Mendelian Inheritance...; Informed consent...; Epigenetics 101; Epigenetics & 9/11, NPR - New Genetic Test & Ethics Genetic Tests.</i>
Assignment	Sep. 30	Discussion Board Topic 1: Group response B due	
Class 8	Oct. 1	Complex traits: IQ, intelligence & heritability	Jones (Calliban's Revenge), Singer (2018)
Class 9	Oct. 6	Complex traits: IQ, intelligence & heritability	Lewontin (Mental Traits). Resnick-GWAS, <i>Optional: Hidden Brain</i>
Exam	Oct. 8	Mid-Term Exam #1	
Assignment	Oct. 12	Discussion Board Topic 2: Group response A due	
Class 10	Oct. 13	Complex traits: sex & gender	Implicit Association Test- Gender ; How is sex determined? Henig. <i>Optional: Graves; Fausto-Sterling (2000), NPR – "What if your child..."; Padawar; Minto.</i>
Class 11	Oct. 15	Complex traits: sex & gender	Sapolsky; Belluck, Bergner
Class 12	Oct. 20	Human population biology: origins, theory, levels of adaptation	K & B ³ Ch. 6
Class 13	Oct. 22	Climatic stress & human variation: solar stress, thermal stress	Loomis; Jablonski
Assignment	Oct. 18	Discussion Board Topic 3: Group response B due	
Class 14	Oct. 27	Climatic stress & human variation: thermal stress (cont.)	K & B Pp. 131–149
Assignment	Oct. 28	Reflective Journals (Sep. 8 through Oct. 27) evaluated	

...continued on the next page

Schedule¹ (cont.)

Item	Date	Topic	Assigned Readings, Films, & Podcasts ²
Class 15	Oct. 29	Climatic stress & human variation: thermal stress (cont.)	K & B Pp. 149—161
Class 16	Nov. 3	Adaptation to malnutrition: dietary requirements	K & B Pp. 186—202; Stunting; Wasting; UNICEF-WHO Child malnutrition.
Class 17	Nov. 5	Adaptation to malnutrition: variation in susceptibility to starvation	K & B Pp. 202-204; Brown & Konner; Got lactase?
Break	Nov. 10&12	<i>Reading Week- no classes</i>	
Class 18	Nov. 17	Adaptation to Hypoxia	K & B Pp. 162-173 & Hypoxia Handout (Beall's work), Zimmer (2018). <i>Optional: Baranova et al.</i>
Class 19	Nov. 19	Adaptation to Infectious Disease	K & B pp. 204-224
Class 20	Nov. 24	Adaptation to Infectious Disease	TBD
Class 21	Nov. 26	Adaptation to Infectious Disease	Orent, Jacobs & Richtel
Assignment	Nov. 29	Discussion Board Topic 3: Group response A due	
Exam	Dec. 1	Mid-Term Exam #2	
Class 22	Dec. 3	Adaptation to Infectious Disease	Stress: Portrait of a Killer
Class 23	Dec. 8	Adaptation to Infectious Disease & Course wrap up	This American Life ("Words")
Assignment	Dec. 10	Discussion Board Topic 3: Group response B due	
Assignment	Dec. 11	Reflective Journals (Sep. 8 through Oct. 20) evaluated	

¹ The schedule of topics may change, but the exam dates and assignment due dates will not change.

² For a detailed bibliography of the readings, please see the pages below. The reading assignments are subject to change if, during the present semester, I find publications which better cover the topic considered. If this occurs, I will inform you at least one week prior to the relevant class.

³ K & B = Kormondy & Brown's *Fundamentals of Human Ecology* (This is available as a course pack at Bound & Copied in Mac hall)

TBD = to be determined

Readings

Some readings are available as pdfs on the Desire2Learn (D2L) website and others online.

Akpan, Uwem (2008) *Say You're One of Them*. Hachette Book Group. New York. (While the entire book is appropriate for this course, the reading assignment only covers the book's last chapter: "My Parent's Bedroom"). (pdf posted on D2L)

Amodio (2014) The neuroscience of prejudice and stereotyping. *Nature Reviews Neuroscience* 15:670–682 doi:10.1038/nrn3800 (*optional reading*)

Appiah, Kwame Anthony (2016) *Colour. Mistaken Identities: Creed, Country, Color, Culture*. The Reith Lectures. BBC. <http://www.bbc.co.uk/programmes/b080t63w> (43 minutes) Listen to both Dr. Appiah's talk and the question and answer session. If you'd prefer to read the lecture, a transcript of his talk can be found on D2L.

Baranova et al. (2017) Genetic determination of the vascular reactions in humans in response to the diving reflex. *Am J Physiol Heart Circ Physiol* 312: H622–H631. doi:10.1152/ajpheart.00080.2016. (*optional reading*)

Barbujani et al. (1997) An apportionment of human DNA diversity. *Proceedings of the National Academy of Sciences* 94:4516–4519. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC20754/> (*optional reading*)

Bauer (2006) *On the Holocaust and Other Genocides*. United States Holocaust Memorial Museum. <http://www.ushmm.org/m/pdfs/20070215-bauer.pdf> (*optional reading*)

Belluck, P (2019) Many Genes Influence Same-Sex Sexuality, Not a Single 'Gay Gene'. *The New York Times*. 29 August. <https://nyti.ms/2ZmHedC>

Bergner, Daniel (2019) The Struggles of Rejecting the Gender Binary. *The New York Times*. The Struggles of Rejecting the Gender Binary. <https://www.nytimes.com/2019/06/04/magazine/gender-nonbinary.html>

Blumenthal (2009) How Might Another Holocaust be Prevented. United States Holocaust Memorial Museum. <http://www.js.emory.edu/BLUMENTHAL/Hol%20Prevention.htm> (*optional reading*)

Brown, PJ and M Konner. 1987. An anthropological perspective on obesity. *Annals of the New York Academy of Sciences*. Vol. 499. Pp. 29-46. <http://onlinelibrary.wiley.com.ezproxy.lib.ucalgary.ca/doi/10.1111/j.1749-6632.1987.tb36195.x/pdf>

Canadian Race Relations Foundation. 2019. Hate Crimes in Canada. <https://www.crrf-fcrr.ca/en/news-a-events/articles/item/26823-hate-crime-in-canada>

Critchley, S (2014) The Dangers of Certainty: A Lesson from Auschwitz. *The New York Times* (http://opinionator.blogs.nytimes.com/2014/02/02/the-dangers-of-certainty/?_php=true&_type=blogs&src=me&ref=general&r=0) Note, the video described can be seen here <https://www.youtube.com/watch?v=wXwj4jMnWZg>. I have also placed the transcript for this video in the "Readings" section of D2L). (*optional reading*)

Culotta, E. 2012. Roots of Racism. *Science*. 336:825-827. (The easiest way to locate this article is to paste the article title into the library search box at <http://library.ucalgary.ca/>. Alternatively, the direct link is <http://science.sciencemag.org.ezproxy.lib.ucalgary.ca/content/336/6083/825>.)

Demby, Gene (2014) The Ugly, Fascinating History of The Word 'Racism'. *Code Switch*, National Public Radio. <http://www.npr.org/sections/codeswitch/2014/01/05/260006815/the-ugly-fascinating-history-of-the-word-racism>. Accessed: 15 July 2016.

Disotell (2000) Human genomic variation. *Genome Biology* 1(5):comment2004.1–2004.2.
<http://genomebiology.biomedcentral.com/articles/10.1186/gb-2000-1-5-comment2004> (optional reading)

Epigenetics 101: a beginner's guide (2014).
<https://www.theguardian.com/science/occams-corner/2014/apr/25/epigenetics-beginners-guide-to-everything> (optional reading)

Epigenetics & 9/11- Rachel Yehudah (2014) How Trauma and Resilience Cross Generations.
<http://www.onbeing.org/program/rachel-yehuda-how-trauma-and-resilience-cross-generations/7786>
(optional podcast)

Fan et al. (2016) Going global by adapting local: a review of recent human adaptation. *Science* 354:54-59
(optional reading)

Fausto-Sterling. 2000. The five sexes, revisited. *The Sciences*. July/August 2000.
<http://www.aissg.org/PDFs/Five-Sexes-Revisited-2000.pdf> (optional reading)

Gapminder (2013) Don't Panic. BBC. (59-minute video). <https://www.gapminder.org/videos/dont-panic-the-facts-about-population/>

Ghost in Your Genes (2007) NOVA. (50-minute video) <https://vimeo.com/248146854>

Gladstone, R (2014) 26 Percent of World's Adults Are Anti-Semitic, Survey Finds. *The New York Times*
<http://www.nytimes.com/2014/05/14/world/26-percent-of-worlds-adults-are-anti-semitic-survey-finds.html> (optional reading)

Got lactase? (2007) Understanding Evolution. University of California Museum of Paleontology.
http://evolution.berkeley.edu/evolibrary/news/070401_lactose

Graves, J (2014) Sex, genes, the Y chromosome and the future of men. *The Conversation*.
<http://theconversation.com/sex-genes-the-y-chromosome-and-the-future-of-men-32893> (optional reading)

Groopman, Jerome 1998. Decoding Destiny. *New Yorker*. February 9, 1998. Pp. 42-47.
<http://jeromegroopman.com/ny-articles/DecodingDestiny-BRCA-020998.pdf>

Resnick, Brian (2018) How scientists are learning to predict your future with your genes. *Vox*.
<https://www.vox.com/science-and-health/2018/8/23/17527708/genetics-genome-sequencing-gwas-polygenic-risk-score>

Henig, Robin M. 2017. How Science Is Helping Us Understand Gender. *National Geographic Magazine*.
<https://www.nationalgeographic.com/magazine/2017/01/how-science-helps-us-understand-gender-identity/>

Hidden Brain (2018) Emma, Carrie, Vivian: How A Family Became A Test Case for Forced Sterilizations.
<https://www.npr.org/2018/04/23/604926914/emma-carrie-vivian-how-a-family-became-a-test-case-for-forced-sterilizations> (optional, 41-minute podcast)

How is sex determined? (2001) NOVA. <http://www.pbs.org/wgbh/nova/body/how-sex-determined.html>

Huntington's Disease (2004) Venezuelan kindreds reveal that genetic and environmental factors modulate Huntington's disease age of onset. *Proceedings of the National Academy of Sciences* 101(10):3498-3503. (The easiest way to locate this article is to paste the title into the library search box at <http://library.ucalgary.ca/>.)

Implicit Association Test- **Race**. <https://implicit.harvard.edu/implicit/canada/takeatest.html> Read the text on this page, then click "I wish to proceed". On the next page, click the blue box which says "Race". Read the instructions and proceed. ONLY YOU WILL SEE YOUR RESULTS. I may ask you some general questions about what you thought of the test but will never seek to determine what the test told you about your views on race.

Implicit Association Test- **Gender**. <https://implicit.harvard.edu/implicit/canada/takeatest.html> Read the text on this page, then click "I wish to proceed". On the next page, click the blue box which says "Gender". Read the instructions and proceed. ONLY YOU WILL SEE YOUR RESULTS. I may ask you some general questions about what you thought of the test but will never seek to determine what the test told you about your views on gender.

Informed consent for genetic testing- Presymptomatic Huntington disease testing
<http://geneticslab.emory.edu/documents/informed-consent/huntington-disease-consent-form.pdf>
(optional reading)

Jablonski, NG (2010) The Naked Truth. *Scientific American*. p. 42-29. http://adamoliverbrown.com/wp-content/uploads/2015/02/2010_EvolutionOfHairlessness.pdf

Jacobs, A & M Richtel (2019) In a Poor Kenyan Community, Cheap Antibiotics Fuel Deadly Drug-Resistant Infections. *The New York Times*. <https://www.nytimes.com/2019/04/07/health/antibiotic-resistance-kenya-drugs.html>

Jones, Steve. 1993. Caliban's Revenge. In *The Language of Genes*. Anchor Books, NY. Pp. 182-196. (pdf posted on D2L)

Kristof, Nicholas D 2009. Learning How to Think, *New York Times*, 26 March.
http://www.nytimes.com/2009/03/26/opinion/26Kristof.html?_r=0

Kormondy & Brown, 1998. *Fundamentals of Human Ecology*. Prentice-Hall. New Jersey. (course packet available at Bound and Copied)

Lewis, Ricki. 2015. Beyond Mendel's Laws & Multifactorial Traits. In *Human Genetics*. McGraw-Hill. (pdfs posted on D2L)

Lewontin, Richard. 1982. Mental Traits. In. *Human Diversity*. WH Freeman, New York. Chapter 7. (pdf posted on D2L)

Lipstadt, D (2014) Why Jews are Worried. *The New York Times*
<http://www.nytimes.com/2014/08/21/opinion/deborah-e-lipstadt-on-the-rising-anti-semitism-in-europe.html?action=click&contentCollection=Opinion&module=RelatedCoverage®ion=Marginalia&pgty=pe=article> (optional reading)

Loomis, WF. 1970. Rickets. *Scientific American* Vol. 223. June. Pp. 77-91. <https://www-jstor-org.ezproxy.lib.ucalgary.ca/stable/24927683>

Marks, Jonathan 1994. Black, White, Other. *Natural History*. Pp. 32-35.

<http://ezproxy.lib.ucalgary.ca:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9412070267&site=ehost-live>

Mendelian Inheritance and Its Exceptions (2008)

https://www.glowm.com/section_view/heading/Mendelian%20Inheritance%20and%20Its%20Exceptions/item/342 As I expect you to already understand types of Mendelian inheritance, focus here on the section "exceptions to Mendelian inheritance".

Milgram, S (1973) The Perils of Obedience. *Harper's Magazine* 247:62-78 (The easiest way to locate this article is to paste the title into the library search box at <http://library.ucalgary.ca/>. Alternatively, the direct link is

<http://ezproxy.lib.ucalgary.ca/login?url=http://search.proquest.com/docview/1301539341?accountid=9838> (optional reading)

Minto et al. 2003. The effect of clitoral surgery on sexual outcome. *The Lancet*. 361:1252-1257. DOI: 10.1016/S0140-6736(03)12980-7 (78 (The easiest way to locate this article is to paste the title into the library search box at <http://library.ucalgary.ca/>) (optional reading)

NPR 2011. New Genetic Test Screens Would-Be Parents

<http://www.npr.org/2011/01/13/132908098/new-gene-test-screens-nearly-500-childhood-diseases>

NPR 2011. The Ethics Of Genetic Tests For Would-Be Parents.

<http://www.npr.org/2011/01/13/132908943/The-Ethics-Of-Genetic-Screening-For-Parents?ps=rs>

NPR 2011. What If Your Child Says, 'I'm In The Wrong Body'?

<http://www.npr.org/2011/12/26/144156917/transgender-kids>

Orent, W (2014) How plagues really work. *Aeon* <http://aeon.co/magazine/health/the-next-pandemic-will-not-erupt-from-the-rainforest/>

Padawer, R (2012) What's So Bad About a Boy Who Wants to Wear a Dress? *The New York Times*

http://www.nytimes.com/2012/08/12/magazine/whats-so-bad-about-a-boy-who-wants-to-wear-a-dress.html?pagewanted=all&_r=0 (optional reading)

Race: The Power of Illusion. Episode 1: The Difference Between Us. (57-minute video)

To access the video:

1. Open the U. Calgary [library webpage](#)
2. Scroll down to the green bar and select [Databases](#)
3. In Databases select [E](#),
4. Select [Films on Demand](#)
5. In the search box type [Race: The Power of an Illusion](#),
6. Scroll down to and watch **The Difference Between Us**

A transcript of this video can be found here: http://www.pbs.org/race/000_About/002_04-about-01-01.htm

Radiolab (2012) Inheritance (65-minute podcast). <http://www.radiolab.org/story/251876-inheritance/>

Rosenberg et al. (2002) Genetic structure of human populations. *Science* 298:2381-2385. DOI:

10.1126/science.1078311 <http://www-eland.stanford.edu/~huatang/gene244/readings/Science%202002%20Rosenberg.pdf> (optional reading)

Rutherford, Adam. 2016. *A Brief History of Everyone Who Ever Lived*. Weidenfeld & Nicholson, London, UK. Chapter 4: The End of Race, Pp. 209-267. A pdf of this chapter is available on D2L. (*optional reading*)

Sapolsky, Robert M. 1997. The Trouble with Testosterone. In: *The Trouble With Testosterone and Other Essays on the Biology of the Human Predicament*. Simon & Schuster, NY. Pp. 147-159. (pdf posted on D2L)

Scheiber & Abrams (2018) Can Training Eliminate Biases? Starbucks Will Test the Thesis. The New York Times. <https://www.nytimes.com/2018/04/18/business/starbucks-racial-bias-training.html>

Singer (2018) Employees Jump at Genetic Testing. Is That a Good Thing? The New York Times. <https://www.nytimes.com/2018/04/15/technology/genetic-testing-employee-benefit.html>

Special Pathogens Branch. 2010. Ebola hemorrhagic fever information packet. Centers for Disease Control and Prevention. Atlanta, GA.

http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/Fact_Sheets/Ebola_Fact_Booklet.pdf
<http://www.cdc.gov/vhf/ebola/outbreaks/guinea/index.html>

SSRC (2005) Is race real? <http://raceandgenomics.ssrc.org/> (*optional reading*)

Statistics Canada. 2019. Police-reported hate crime, by type of motivation, Canada (selected police services). <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510006601>

Stress: Portrait of a Killer. 2008. (56-minute video) <https://topdocumentaryfilms.com/stress-portrait-of-a-killer/>

Stunting (2016). WHO. Read the text *and watch* the 5-minute video "Chapter 1. Stunted growth: what is it?" http://www.who.int/nutrition/healthygrowthproj_stunted_videos/en/

Talenti and Goldstein. 2006. Genomics meets HIV-1. *Nature Reviews Microbiology*. 4:865-873. (The easiest way to locate this article is to paste *Nature Reviews Microbiology* into the library search box at <http://library.ucalgary.ca/>.) (*optional reading*)

This American Life (Podcast) 2002. "Words" (58-minute podcast)

<https://www.thisamericanlife.org/204/81-words> . If you'd prefer to read the transcript, it is available at the URL for the podcast.

Understanding Science (2016) University of California Museum of Paleontology. *Begin with this page: [http://undsci.berkeley.edu/article/0_0_0/%3C?%20echo%20\\$baseURL;%20?%3E/intro_01](http://undsci.berkeley.edu/article/0_0_0/%3C?%20echo%20$baseURL;%20?%3E/intro_01) and proceed through all of the following pages:* Understanding Science: Discovery: The spark for science; A science checklist; Science aims to explain and understand; Science works with testable ideas; Science relies on evidence; Science is embedded in the scientific community; Scientific ideas lead to ongoing research; Participants in science behave scientifically; Beyond physics, chemistry, and biology; Science in disguise; Science has limits: A few things that science does not do; Science in sum.)

UNICEF-WHO Child Malnutrition <http://apps.who.int/gho/data/node.wrapper.nutrition-2016&showonly=nutrition> Joint child malnutrition estimates 2016 (UNICEF-WHO-WB)

Here, familiarize yourself with rates and patterns of stunting and wasting. Before looking at this site, complete the "Stunting" and "Wasting" assigned readings & video.

U. Utah – SNPs (2019). Learn Genetics. Making SNPs Make Sense (view all sections in both What is a SNP? and What is a Haplotype?). <http://learn.genetics.utah.edu/content/precision/snips/>

U. Utah – Epigenetics & Inheritance (2019) Epigenetics & Inheritance (you will be responsible for the entire page). <https://learn.genetics.utah.edu/content/epigenetics/inheritance/>

U. Utah – Genomic Imprinting (2019). Learn Genetics. Genomic Imprinting (you will be responsible for the entire page). <https://learn.genetics.utah.edu/content/epigenetics/imprinting/>

Wasting. https://www.unicef.org/progressforchildren/2007n6/index_41505.htm Here, you need only concern yourself with the definition of wasting. It's found in the second paragraph and is only 3 sentences.

Weintraub (2016) Is everybody a racist? Aeon. <https://aeon.co/essays/unconscious-racism-is-pervasive-starts-early-and-can-be-deadly>

Whitman (2016) Why the Nazis studied American race laws for inspiration. Aeon. <https://aeon.co/ideas/why-the-nazis-studied-american-race-laws-for-inspiration>

Wiesel, Elie. 1958. *Night*. Bantam Books. New York. (pages 1 - 43)

(We cannot place any print copies on reserve for the Fall semester, however, the library has signed an agreement with HathiTrust library which gives us electronic access to some of the titles. We now have access to [three different versions of Wiesel's Night via HathiTrust](#). HathiTrust allows one user at a time, for one hour only. You can renew Hathi titles for a subsequent hour as long as no one else is in the queue to read the book. https://ucalgary-primo.hosted.exlibrisgroup.com/permalink/f/13e4ecq/01UCALG_ALMA21603210020004336. Please see the Hathi Trust Access Guide found in D2L in [Content](#). Alternatively, you could purchase a [personal copy](#) or [e-book](#) from Amazon or [Google](#).

Zimmer (2018) [Bodies remodeled for life at sea](#). The New York Times.