

# **Anthropology of Science**

ANTH 395 – Winter 2019

PF118 Tuesday & Thursday 3:30 – 4:45 pm

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Lab ES750 – Office hours: T-Th 4:45 – 5:30 pm location: TBA (or by appointment)

Teaching Assistant:

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Office: ES 722 - Office hours: 2-3

## **Course Description**

This course offers an introduction to both the culture and the politics of science, by drawing on the anthropology, history and philosophy of science, and with an emphasis on hegemonic western science. We will examine the rise of ‘the scientific method,’ the training of scientists, the rise of classification in sciences and its implications for difference and inequality, and lastly, the production of relationships between scientists and the wider political, racial, gendered and religious world. Students will develop the critical vocabularies and analytic skills to address contemporary scientific controversy and be active participants in the making of our technoscientific worlds.

## **Required Textbooks**

Kuhn, Thomas S.

2012. The structure of scientific revolutions. University of Chicago Press

Gould, Stephen Jay

1996. The mismeasure of man. WW Norton & Company

## **Course Format**

This course will follow an interactive lecture and discussion style format, accompanied by the occasional film or documentary in class. Readings are crucial and students are expected to come to class having: read the readings, prepared to discuss them, and ask questions. Discussion will be a very important component of this class. All course materials, assignment guidelines and any other relevant information or announcements will be posted on the class D2L website.

The class Twitter hashtag is #ANTH395w19. The instructor and the TA for questions will monitor this. Interesting and relevant anthropology and science news articles will also be shared.

## **Course Assignments and Assessment**

This course is reading intensive. With this in mind, the course writing will be used as a supplement to aid students in cementing their reading techniques, their textual comprehension and their ability to translate apply idea from class to public debates surrounding science and/or scientific breakthroughs and/or scientific controversies. Close weekly readings, detailed in-class discussions of those class readings and student participation will form the backbone of this course.

Students are expected to maintain a “Science in Media” portfolio on our class discussion site, engage in the online discussion and portfolio, write a mini science ethnography, participate in class discussions and pop-quizzes and final paper due at the end of the semester.

Students will be evaluated on the basis of a 100-point system, whereby:

Science in Media portfolio (6 entries)	30% (each worth 5%)
4 portfolio responses	20% (each is worth 4%)
Mini science ethnography	10%
In class discussion & pop quiz	10%
Final paper	30%

**Grading Scheme:**

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

**In class discussion and pop quiz**

Throughout the semester, questions for discussion and about the readings will be presented in class via TopHat. A total of 50 points will be assigned to questions throughout the semester, with the number of points varying between questions. Some questions, points will be awarded for answering (opinion questions), while others will be factual and graded correct or incorrect. If you are not able to attend class and email **prior** to the start of class, half of the day’s points will still be awarded. If you do not attend class and do not email **prior** to the start of class, no points will be awarded to you. You are expected to bring an electronic device to participate in the TopHat questions.

**Science in Media Portfolio & Portfolio Responses: Description and Assessment**

As part of trying to understand how science and technology shapes our daily lives and educational knowledge, each class participant will be required to maintain an electronic portfolio on « Science in Media » through D2L’s online discussion board. These portfolios will serve as a space for personal reflection, an electronic space where we can all share ideas and lastly, a collection of science news through which we can try to understand our class reading. How do our readings influence the way science can shape our everyday thinking ? You will need to update your portfolio regularly, and keep up with it all semester – as you can see the portfolio-related assignments (portfolio and responses) are worth 50% of your grade in this class.

**Portfolio Entries:** Every week starting in Week 2 of the semester, students are expected to upload one article/video/story from a mainstream media source about a current scientific breakthrough, controversy or other science news item, to our class discussion thread. Students must upload this article by Sunday night at midnight, and this article may be a topic of discussion in the week that follows. On the discussion thread, you must put a link to your article or video,

then write 3-4 sentences about 1.) why you chose to upload this article, 2.) why it is interesting to you, and 3) how it relates to the content of this class. Though you have an opportunity to upload an entry every week, you only have to upload six entries over the course of the semester. This is to account for some weeks being busier than others in your schedule, so that you don't have to upload an entry weekly.

**Portfolio Entries Assessment:** Each portfolio entry is assessed out of 5 points: you get 1 point just for doing it, 3 points for answering each of the 3 questions listed above, and 1 point for language (correct grammar, spelling, punctuation etc).

Good sources to turn to would be the Science or Science and Technology sites of mainstream media outlets. For example :

<http://www.nature.com/news/>

<https://www.sigmaxi.org/> - smart brief at bottom of the page

<http://www.nytimes.com/section/science>

<http://www.cbc.ca/news/technology>

<http://www.bbc.co.uk/science?1>

[http://www.bbc.com/news/science\\_and\\_environment](http://www.bbc.com/news/science_and_environment)

<https://www.sciencenews.org>

<http://www.wired.com>

<http://www.theguardian.com/science>

**Portfolio Responses:** The last component of the electronic portfolio is the response assignment. In addition to posting 6 entries over the course of the semester, students will be required to respond to another student's entry 4 times throughout the semester. If students are particularly interested or inspired by an article someone else has posted, they can respond to the article. They must write at least 3 sentences indicating 1.) why they chose to respond to this article, and 2.) what they think of (agree/disagree with) the original poster's comments.

### **Mini Science Ethnography**

Choose one of:

#### A) Science Lecture

You are required to attend a science lecture/talk on the University of Calgary campus, conduct participant observation, and write about your experience. You can attend any lecture on campus *as long as the person giving a talk is a scientist* (i.e has a degree in science, works in science/engineering etc).

In addition to describing the content of the talk and your thoughts on the content, think about the whole environment; where was the talk held? How was the room configured? How did the scientist give their talk? Visual aids? Was it easy for you to follow? How many people were in the audience? Were they able to follow the talk? Was the room dark/light? How was the environment? Was there a q&a? What kinds of questions did people ask? Did people interact/discuss after the talk? What were your impressions of

the lecture? Of the audience? **You must, at least briefly, relate it to some discussion/text from class.**

B) Telus Spark's Being Human

You must visit the Telus Spark's *Being Human* permanent exhibit, conduct participant observation, and write about your experience. **The goals of this ethnography is to ask and answer the question: how does science think about humans?** How does it differ from anthropology, or other disciplines? You should participate fully in the interactive exhibits, and describe your experience. Additionally, you might want to think about: what human characteristics does the exhibit investigate? What are the important categories to think about humanity with? What categories matter? How does science define us? Are categories of gender, race, culture explored in the exhibit? If yes, how? **You must, at least briefly, relate your ethnography to some discussion/text from class.**

The mini ethnography should be the **length of a good, detailed paragraph – no more than 1 page long, double spaced, 12 pt Times New Roman font.** Due March 28, 2019 by midnight on D2L.

For the mini ethnography, you will be assessed in the following way:

- 25% will be awarded for language (grammar, spelling, punctuation);
- 25% will be awarded for structure and clarity (is there a clear beginning and conclusion? Does the student use ethnographic evidence to make a claim? Is the mini ethnography clear and easy to follow? Is it the correct length?);
- 25% will be awarded for relating the ethnography to class material (does the mini ethnography insightfully draw from class readings and/or discussions?)
- 25% will be awarded for the originality of the mini ethnography (is the ethnography asking interesting questions? is it an interesting ethnography?)

**Final Paper:**

This will be a short (1000 – 1500 word) paper evaluating a controversy in science from an anthropological/ethnographic perspective. You will select a topic and post it to a discussion form in d2l (no later than **March 14** – you may adjust or change your topic after this date as long as it is still available). You cannot do the same specific topic as someone else; however, you can do a different approach to a similar topic (ex. How western media portrays anthropogenic climate change vs Scientific publications of anthropogenic climate change). You are meant to demonstrate your understanding of class readings, lecture, and discussion, as well as the materials and discussions from the 'Science in Media' portfolios. **Due Tuesday April 23 by midnight on D2L.**

**Academic Accommodations:**

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with

Student Accessibility Services, please contact their office at 220-8237. You are required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation.

### **PLAGIARISM AND CHEATING**

Plagiarism: “to steal and pass off the ideas or words of another as one’s own” (Webster’s). Plagiarism will not be tolerated and will automatically result in a failing grade for the submission. Any student caught plagiarizing will also be subject to additional University sanctions. Students are expected to be familiar with the Department of Anthropology and Archaeology’s policy on intellectual honesty

### **DEFERRED EXAMS:**

A student who is absent from a test for legitimate reasons must discuss an alternative course of action with the instructor. The instructor at their discretion may transfer the percentage weight for the test to the final examination, if there is a final examination in the course, set another test, etc. An instructor will normally make this decision on the basis of verbal information provided by the student. In the event that an instructor feels that they cannot judge the veracity of the information provided, Students must be aware that they are responsible for payment of any charge associated with the medical assessment and documentation as this service falls outside the realm of services provided by the Provincial Health Care Plan. Deferral of the final exam requires Registrar approval.

### **ACADEMIC ACCOMMODATIONS**

<http://www.ucalgary.ca/access/accommodations/policy>

Students needing an Accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities

Students needing an Accommodation based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the instructor of this course.

### **ACADEMIC INTEGRITY**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Calgary is a strong signal of each student’s individual academic achievements. As a result, the University treats cases of cheating and plagiarism very seriously. Non-academic integrity also constitutes an important component of this program.

For detailed information on what constitutes academic and non-academic misconduct, please refer to the following link: <http://www.ucalgary.ca/pubs/calendar/current/k-2-1.html>

All suspected cases of academic and non-academic misconduct will be investigated following procedures outlined in the University Calendar. If you have questions or concerns about what constitutes appropriate academic behavior or appropriate research and citation methods, you are

expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Where there is a criminal act involved in plagiarism, cheating or other academic misconduct, e.g., theft (taking another student's paper from their possession, or from the possession of a faculty member without permission), breaking and entering (forcibly entering an office to gain access to papers, grades or records), forgery, personation and conspiracy (impersonating another student by agreement and writing their paper) and other such offences under the Criminal Code of Canada, the University may take legal advice on the appropriate response and, where appropriate, refer the matter to the police, in addition to or in substitution for any action taken under these regulations by the University

### **TEACHING EVALUATIONS / USRI (Universal Student Ratings of Instruction)**

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. **Your responses make a difference, please participate!** Website: <http://www.ucalgary.ca/usri/>

### **Writing Across the Curriculum**

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support, part of the Student Success Centre, can be utilized by all undergraduate and graduate students who feel they require further assistance

**Emergency Evacuation Assembly Points:** In the event of an emergency that requires evacuation, please refer to the following link to become familiar with the assembly points for the class: <http://www.ucalgary.ca/emergencyplan/assemblypoints>

### **Freedom of Information and Protection of Privacy Act: Freedom of Information and Protection of Privacy Act**

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. Please refer to the following link for detailed information: <http://www.ucalgary.ca/legalservices/foip>

The Department of Anthropology and Archaeology's FOIP (Freedom of Information and Privacy) policy requires all reports/examinations to be returned to students during class time or the instructor's office hours. Any term work not picked up will be placed in the Anthropology and Archaeology Office (ES620) for distribution. Any student not wishing to have their work

placed in the office must make alternative arrangements with the course instructor early in the term.

**Safewalk Information:** Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at (403) 220-5333 or use a help phone, and Safewalkers or a Campus Security Officer will accompany you to your campus destination.

**Faculty of Arts Program Advising and Student Information Resources:** Have a question, but not sure where to start? Arts Students' Centre

The Faculty of Arts Students' Centre is the overall headquarters for undergraduate programs in the Faculty of Arts. The key objective of this office is to connect students with whatever academic assistance that they require.

In addition to housing the Associate Dean, Undergraduate Programs and Student Affairs and the Associate Dean for Teaching and Learning, the Arts Students' Centre is the specific home to:

- program advising
- the Faculty's Co-operative Education Program
- the Arts and Science Honours Academy
- the Faculty's Interdisciplinary Programs
- a Student Help Desk

Location: Social Sciences Room 102

Phone: 403.220.3580

Email: [ascarts@ucalgary.ca](mailto:ascarts@ucalgary.ca)

Website: [arts.ucalgary.ca/undergraduate/](http://arts.ucalgary.ca/undergraduate/)

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

Contacts for Students Union Representatives for the Faculty of Arts:

[arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca)

[arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca)

[arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca)

[arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca)

**Ombudsman's office:** <http://www.ucalgary.ca/ombuds/>