# **Faculty of Science**



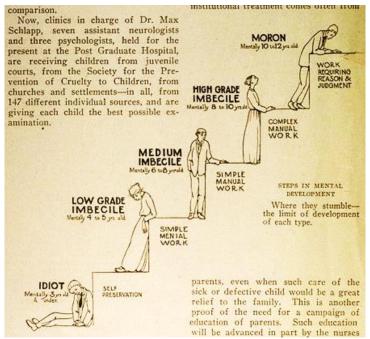
## **Department of Science and Technology Studies**

http://sts.info.yorku.ca

**Course Outline** 

STS 3740 3.0"Life Sciences in Modern Society" Fall 2017

Mondays 2.30-4.30, Wednesdays 2.30-3.30 in Calumet 211



"Stages" of mental development (below normal), in "Exhibit of work and educational campaign for juvenile mental defectives," *The Survey* 31, October 11 1913, p. 54. *via Eugenics Archive, APS, Philadelphia.* 

#### Course Instructor(s) and Contact Information

Professor: James Elwick

Course Email: jelwick@yorku.ca.

Office hours: 313 Bethune College, Wednesdays 11am-1pm

### **Expanded Course Description**

The emergence of professional biology is explored through examination of conflicting views of the role of natural history in the development of the specialized life sciences.

Exemplified by the picture above, this year's class takes up how people have historically thought about stages of development, and how "evolution" was often assumed to mean not only biological but also *moral* <u>progress</u> (e.g. "primitive" to "civilized", "retarded" to "normal"). Such assumptions affected not only technical work in fields like embryology (e.g. Haeckel's "ontogeny recapitulates phylogeny"); they also informed social policies such as residential schools and eugenics. In addition to a final exam, students will research and write a major paper.

### Course Learning Outcomes

A student successfully completing this course will be able to

- Describe basic changes in the life sciences 1850-1930 as natural history ramified into such fields as genetics, evolutionary biology, paleontology and cytology
- 2. Explain how developmental concepts ("primitive/civilized"; "retarded"/"normal") shaped both technical life sciences and social policies
- 3. Actively read a text
- 4. Formulate a realistic and interesting research question in the history of biology and explain why it matters
- 5. Conduct research into primary (historical) and secondary (contemporary scholarly) sources in order to try and answer this question
- 6. Write an interesting paper that tries to answer this question by making an argument informed by this research

### Evaluation

This course uses a new grading system called "specifications grading", which sets out standards of achievement in advance. Not only does "specs grading" mean its standards are more rigorous, showing that a student can indeed complete one or more of the above learning outcomes, but it gives the student the freedom to choose the level to which she wishes to perform. More information on the system can be found at <a href="https://www.utimes.pitt.edu/?p=30598">https://www.utimes.pitt.edu/?p=30598</a> and <a href="https://www.chronicle.com/blognetwork/castingoutnines/2014/11/25/41-interview-linda-nilson/">https://www.chronicle.com/blognetwork/castingoutnines/2014/11/25/41-interview-linda-nilson/</a>

There are four kinds of assignments in 3740: Critical Writing Assignments, a Research Assignment, a Research Paper, and a final exam.

Except for the final exam, all assignments are deemed to be either *acceptable* or *unacceptable*. Rubrics and sample assignments are provided for clear guidance and as models, there are tokens for flexibility and 'second chances,' and Elwick will consult with each student regularly. Note how the grades are tied to fulfilling more of the course learning outcomes.

### To get a...

- 50% (D / Pass), you must get a 60% on the final exam only.
- 55% (D+), you must get a 65% on the final exam.
- 60% (C), you must get a 70% on the final exam.
- 65% (C+), you must do what is necessary to get a C,
  - plus do three acceptable (W) \* Critical Writing Assignments
  - plus attend regularly (missing no more than 3 classes w/out explanation).
- 70% (B) you must do what is necessary to get a C+,
  - plus do an acceptable (R)\* Research Assignment.
- 75% (B+) you must do what is necessary to get a B,
  - plus do an acceptable (P)\* Research Paper.
- 80% (A) you must do what is necessary to get a B+
  - plus do three more acceptable (W)\* Critical Writing Assignments (to six).
  - plus regularly contribute to the class discussion
  - plus get a 75% on the final exam.
- 90% (A+) you must do what is necessary to get an A,
  - and the Research Paper is, in Elwick's judgement, suitable to be entered into the York Undergraduate Research Fair.
- \*Acceptable (CW), (R), and (P) is briefly defined below; more details on Moodle.

For flexibility and second chances, you each get 4 tokens. A token can be spent to

- revise and resubmit (in 48 hours) an unacceptable piece of work
- miss a class without a valid excuse
- get a 24 hour extension on an assignment
- gain a bonus 2% on the final exam

An outstanding contribution may earn the student an additional token.

It is possible for everyone in the class to get an A+. It is also possible for everyone in the class to fail.

An Acceptable (CW)\* Critical Writing Assignment, submitted online by 11am on the day of the class

- is a minimum of 300 words and is written in good faith
- has few to no typos and/or grammatical problems
- raises at least three questions that can be taken up and discussed in class

An Acceptable (R)\* Research Assignment, due 11am on 23 October, which

• follows in good faith the specifications set out in the Research Assignment Specifications sheet (in short: a "TQS statement", description of how you did your research, and annotated bibliography of six sources, including one primary source).

An Acceptable (P)\* Research Paper, due 11am on 4 December, which

• follows in good faith the instructions set out in the Research Paper Specifications sheet (in short, 2500 words, workshopped with other students two weeks before the due date, and properly referenced).

#### The Final Exam

- Will be in short answer and long answer format, drawing on discussion and the readings.
- A list of potential questions is given out in the review class; the questions from last year's exam are already posted on Moodle.

### **Course Materials**

**All on Moodle.** Students should <u>always</u> bring the assigned reading to class, on something larger than a smartphone screen.

Course Content and Format									
1	М	11-Sep-17	2:30-4:30	2 h	Introduction; setting up class culture				
2	W	13-Sep-17	2.30-3.30	1 h	Introduction; setting up class culture; does evolution mean progress?				
3	М	18-Sep-17	2:30-4:30	2 h	Defining natural history				
4	W	20-Sep-17	2.30-3.30	1 h	Defining natural history (continued)				
5	М	25-Sep-17	2:30-4:30	2 h	Research session in Steacie lab (basement)				
6	W	27-Sep-17	2.30-3.30	1 h	Pre-Darwinian recapitulationism; arrested				

					development
7	М	2-Oct-17	2:30-4:30	2 h	Darwinism, parallelism, primitivism
8	W	4-Oct-17	2.30-3.30	1 h	Darwinism, parallelism, primitivism (continued)
9	W	11-Oct-17	2.30-3.30	1 h	Darwinism and recapitulationism
10	M	16-Oct-17	2:30-4:30	2 h	Recapitulationism and 'childhood'
11	W	18-Oct-17	2.30-3.30	1 h	Recapitulationism and 'childhood' (continued)
12	М	23-Oct-17	2:30-4:30	2 h	Recapitulationism and 'atavism' in culture
. –		20 000 17			Research Assignment due
13	W	25-Oct-17	2.30-3.30	1 h	Recapitulationism and 'atavism' in culture (continued)
14	M	30-Oct-17	2:30-4:30	2 h	Intelligence as mental 'age'; eugenics
15	W	1-Nov-17	2.30-3.30	1 h	Intelligence as mental 'age'; eugenics (continued)
16	М	6-Nov-17	2:30-4:30	2 h	Laboratories and objectivity come to the life sciences
17	W	8-Nov-17	2.30-3.30	1 h	Laboratories and objectivity come to the life sciences (continued)
18	М	13-Nov-17	2:30-4:30	2 h	Genetics grows
19	W	15-Nov-17	2.30-3.30	1 h	Genetics grows (continued)
					Workshopping of research papers
20	М	20-Nov-17	2:30-4:30	2 h	Draft of Research Paper due in class
21	W	22-Nov-17	2.30-3.30	1 h	Workshopping of revised research papers
22	М	27-Nov-17	2:30-4:30	2 h	The lab as an assembly line: science and mass production
23	W	29-Nov-17	2.30-3.30	1 h	The lab as an assembly line: science and mass production (continued)
24	М	4-Dec-17	2:30-4:30	2 h	Course review
_ '		. 200 17			Research Paper due
			Exam p	eriod	Final exam

# Course Policies

# Classroom etiquette

• At the beginning of the class we will together draw up a code of class conduct about things like in-class screen use and texting.

# **Email Policies and Etiquette**

• When writing an email, please use correct grammar and capital letters and include a summary of the subject in the email's subject line (e.g.

"Question about 3740 Nov. 7<sup>th</sup> reading"); don't forget to sign off with your name and student number.

### **Accommodations**

- Course conflicts, work conflicts, or vacations are not acceptable reasons for accommodation.
- If you still wish accommodation for a missed/to be missed assignment...
  - If you will miss a critical writing piece, please email me explaining why
  - If you will miss the exam, please email me explaining why
  - If you <u>have</u> missed the exam, you must petition at (<u>http://registrar.yorku.ca/pdf/Undergraduate%20Academic%20Petition%20Form.pdf</u>)

### Copyright and Intellectual Property

## Some notes on copyright:

• You may record classes on audio, provided you do not upload them to the internet.

#### **University Policies**

#### **Important Sessional Dates**

Includes sessional start and end dates, drop deadlines, and withdrawal dates. See the Office of the Registrar website at <a href="http://www.registrar.yorku.ca/enrol/dates/">http://www.registrar.yorku.ca/enrol/dates/</a>

## **Academic Honesty and Integrity**

Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document. Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities. Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Academic Honesty and electronic devices during assessments (e.g. exams)

- Internet capable and personal storage devices of all kinds must be turned off, including vibrate. These and any other unauthorized material must be placed under the student's chair and should not be accessed at any point during the exam. Failure to comply with directive may be considered a break of academic honesty.
- See <a href="http://registrar.yorku.ca/exams/tipsheet">http://registrar.yorku.ca/exams/tipsheet</a>

Please familiarize yourself with the full <u>Senate Policy on Academic Honesty</u>, found at <u>http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/</u>

Please also familiarize yourself with the <u>SPARK Academic Honesty tutorial</u> found at https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/

### **Academic Accommodation for Students with Disabilities**

York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Please familiarize yourself with the full <u>Senate Policy on Academic Accommodations for Students with Disabilities</u>, found at <a href="http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/">http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/</a>

Note: Students should submit accommodation letters from Counseling and Disability Services (CDS) to the course instructor within the first two weeks of the course or as soon as issued.

Counseling and Disability Services - <a href="http://cds.info.yorku.ca/">http://cds.info.yorku.ca/</a> York Accessibility Hub - <a href="http://accessibilityhub.info.yorku.ca/">http://accessibilityhub.info.yorku.ca/</a>

Note: A student registered with CDS, and choosing to write with Alternate Exams, is responsible for making the appropriate writing arrangements within the timeframes outlined by Alternate Exams.

Alternate Exams - http://altexams.students.yorku.ca/

#### **Religious Observance Accommodation**

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents.

https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/15/wo/kmHGekTpzKLX6XY KBXYc8M/0.3.4.62.0

Note: Students who will have an academic conflict as a result of a religious observance, at any point in the term, should make the instructor aware of such at least three weeks prior to the conflict.

For conflicts occurring during an official examination period, please complete the Examination Accommodation Form available at

http://www.registrar.yorku.ca/pdf/exam\_accommodation.pdf and submit to your instructor at least three weeks prior to the final exam.

### **Student Conduct in Academic Situations**

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. A statement of the policy and procedures regarding disruptive and/or harassing behaviour by students in academic situations is available on the website of the University Secretariat (<a href="http://secretariat.info.yorku.ca/">http://secretariat.info.yorku.ca/</a>).

### Other Resources

### **Learning Commons**

The Learning Commons brings together key supports for your learning: writing, research, learning skills and career services.

http://www.library.yorku.ca/cms/learning-commons/

#### goSAFE

goSAFE is a complimentary service provided to the York Community. At the Keele campus, goSAFE has two routes: North Route & South Route which will safely transport community members by vehicle from one specified hub to another on campus. goSAFE operates seven days a week, all year round, including University closures (with the exception at Glendon during the Christmas holiday closure). Call the goSAFE office at 416-736-5454 or extension 55454 during hours of operation. Please give your name, location and destination. http://www.yorku.ca/goSAFE/

### Mental Health and Wellness at York University

Outlines a variety of resources available to support mental health and wellness <a href="http://mhw.info.yorku.ca/resources/resources-at-york/students/">http://mhw.info.yorku.ca/resources/resources-at-york/students/</a>

#### Good2Talk

Post-Secondary Student 24 hour Helpline <a href="http://www.good2talk.ca/">http://www.good2talk.ca/</a> 1-866-925-5454