

ETHICS IN SCIENCE AND TECHNOLOGY

A. 1. General Education

- 2. TITLE:** Ethical Issues **SUBTITLE:** Science and Technology
- 3. COURSE NO.:** 345-214-AB sec. 02
- 4. SEMESTER:** Winter 2017
- 5. CLASS TIME & ROOM:** T/Th 4-530 HO-105
- 6. PONDERATION:** 3-0-3
- 7. CREDITS:** 2 credits
- 8. COMPETENCY:** apply critical thought process to ethical issues relevant to field 4HUP
- 9. PREREQUISITES:** 345-101-MQ & 345-102-MQ
- 10.** Winter 2018

11. INSTRUCTOR: Dr. Meredith Browne

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13. OFFICE HOURS: T/Th 1-230 and F 1130-1230

B. INTRODUCTION:

1. The prestige and power of science are defining features of Western Culture in the 20th and 21st Centuries. We look to science to tell us the truth about ourselves and the world we live in. All of us recognize that the fruits of scientific study, such as modern medicine, descriptions of the origins of the universe, nuclear weapons and power, and all the technologies which we use every day have significant effects on society and individual life.

However, this is only half the equation. Just as culture is influenced by science, science is influenced by culture. Through a series of readings and case studies from the 19th Century to the present, this course will address the complex relationship between science and society. Special attention will be paid to the question of who benefits from the practice and application of scientific research.

2. ROLE IN GENERAL EDUCATION:

"Ethical Issues" courses are B block courses. They build upon the A Block courses "World Views" and "Knowledge" and address ethical issues relevant to the field of study. This course completes the critical thinking skills in General Education courses with the introduction of the notions of criteria for the application of value judgments

5. This course qualifies for certificates: Women's Studies & Gender Relations, Aboriginal Studies and Peace & Social Justice.

C. Course Objectives

1. To apply a critical thought process to ethical issues relevant to the field of study. Ethical issues are understood to be questions of social and moral significance approached from a perspective that examines questions of valuing and the notions of good and bad. "Ethical Issues" courses are not meant to be introductions to ethical codes but rather to allow students to examine important questions of human morality as they relate to their respective fields of study and to apply an authentic critical thought process to the resolution of these issues.

Elements of the competency or "knowledge objectives"

1. To situate significant ethical issues in appropriate world views and fields of knowledge
2. To explain the major ideas, values, and social implications of ethical issues
3. To organize the ethical questions and their implications into coherent patterns
4. To debate ethical issues

Performance criteria or "ability objectives"

- 1.1 Accurate recognition of the basic elements of ethical issues
- 1.2 Appropriate use of relevant terminology
- 1.3 Adequate identification of the main linkages with world views and fields of knowledge
- 2.1 Adequate description of the salient components of the issues
- 3.1 Coherent organization of the ethical questions and their implications
- 3.2 Appropriate expression, including a significant individual written component, of an analysis of the context, importance, and implications of the issues
- 4.1 Adequate development of substantiated argumentation including context and diverse points of view
- 4.2 Clear articulation of an individual point of view
- 4.3 Appropriate use of revision strategies
- 4.4 Appropriate correction of form and content

D. EVALUATION PLAN: See tentative timetable below for due dates. All assignments and readings will be posted on the course website. Check it often to stay up to date.

Tuskegee presentation 15%*

Quizzes 5% x 4 best marks = 20% There will be 6 opportunities to do quizzes*

Essay on Difference and Science 25%

Presentation/Website on Eugenics 20%

Final Test 20%

*Quizzes may take various forms including traditional in-class quizzes as well as take-home assignments. In-class quizzes will not be reset for students who are absent without formal documentation. There is an optional essay on a visit to a museum. This can replace 3 quizzes (15%).

NOTE: Changes to the evaluation plan, during the semester, require unanimous consent.

Assessment tasks - Evaluation plan linkages to:	Ministerial Elements (knowledge obj.)	Performance Criteria (ability obj.)
Final Test (20%)—Summative	1, 2, 3, 4	1.1, 1.2, 1.3, 2.1, 3.1, 4.1
Essay (25%)—Summative	1, 2, 3, 4	1.1, 1.2, 1.3, 2.1, 3.1, 3.2, 4.1, 4.2, 4.3, 4.4
Quizzes (20%)	1, 2, 3	1.1, 1.2, 1.3, 2.1, 3.1
Tuskegee Presentation (15%)	1, 2, 3, 4	1.1, 1.2, 1.3, 2.1, 3.1, 4.1, 4.2
Eugenics Presentation (20%)	1, 2, 3, 4	1.1, 1.2, 1.3, 2.1, 3.1, 4.1, 4.2, 4.3

8. Final Evaluation Composition

45% - Essay (25%) and Final Test (20%)

E. CONTENT: This course addresses the foundations of the social power of science, specifically the ideals of objectivity and neutrality. In addition to questioning the accuracy of traditional accounts of how science is practiced, we will undertake a series of readings which concern cases in which ideas and assumptions from the parent culture have influenced the direction of scientific research. Particular attention will be paid to those cases involving preconceived ideas about human difference in terms of race, class, gender and sexuality. Not surprisingly, power relations in society have been echoed in scientific projects which defined what was normal and desirable. We will consider this phenomenon and its effects, as well the concept of scientific literacy.

See Tentative Schedule at the end of this document

F. 1. REQUIRED TEXTS and 2. COURSE COSTS: Reading Package will be available at the bookstore for \$10. Other materials may be placed on reserve or are available online. There will also be a field trip to a museum where we are asked to make a \$2 donation. Museum is accessible by public transit so budget for a round trip if you don't have a pass.

G. BIBLIOGRAPHY: See list of readings on timetable below.

H. METHODS: This course will consist of classroom lectures, individual research, group work and presentations, discussion, a field trip, videos, and visual presentations. There is a class website which will have information about all homework and assignments. Make sure you check it on a regular basis.

I. DEPARTMENTAL AND CLASS POLICIES:

1a. Attendance: Students' regular, active presence is vital to success in the course. Since attendance is an integral part of understanding and mastering competencies in Humanities, Philosophy, and Religion courses, students who miss more than 20% of class time can fail unless there are legitimate reasons.

1b Late Arrival: Disrupting the class by arriving late is not acceptable. Classes will begin on time. Please plan accordingly. Students arriving late may find themselves not admitted to class or marked absent.

2. Late Assignments: Assignments must be printed out and submitted at the beginning of class unless stated otherwise. Late assignments will be penalized at 10% per day unless stated otherwise. Homework assignments which are preparation for class are not accepted late.

3. Technology: Use of cell phones or other devices is not allowed. They should be turned off for the 80 minutes we are in class. Laptops are only permitted for certain course-related activities. Offending students will be asked to leave class and be counted as absent.

4, Classroom Behaviour: To maintain a good learning environment, certain conditions must be maintained: The classes start on time and last 80 minutes. You are expected to arrive on time and remain for the duration. If you wish to speak, raise your hand and wait to be acknowledged. Avoid interrupting others when they are speaking. Disruptive behaviour in class will not be tolerated. Some behaviours which are not acceptable are arriving late or leaving during discussions, lectures, etc., sleeping, texting, or talking while the teacher or another student has the floor. Offending students may be asked to leave class and be counted as absent.

5. Returning of Graded work: (Article 3.3, item 7): Students have the right to receive the results of evaluation, for regular day division courses, within two weeks. For evaluations at the end of the semester/course, the results must be given to the student by the grade submission deadline. Where applicable: for intensive courses (i.e.: intersession, abridged courses), timely feedback will be adjusted accordingly. It may take up to three weeks before major assessments in Humanities, Philosophy and Religion are graded and returned to students.

J. College Policies

Policy No. 7 – IPESA, Institutional Policy on the Evaluation of Student Achievement

<http://johnabbott.qc.ca/ipesa>

Changes to Evaluation Plan in Course Outline (Article 5.3)

Changes require documented unanimous consent from regularly attending students and approval by the department and the program dean.

Religious Holidays (Article 3.2.13 and 4.1.6)

Students who wish to observe religious holidays must inform their teacher of their intent, in writing, within the first two weeks of the semester.

Student Rights and Responsibilities (Article 3.2.18) It is the responsibility of students to keep all assessed material returned to them in the event of a grade review. The deadline for a Grade Review is four weeks after the start of the next regular semester.

(Article 3.3.6) Students have the right to receive graded evaluations, for regular day division courses, within two weeks after the due date or exam/test date, except in extenuating circumstances. A maximum of three (3) weeks may apply in certain circumstances (ex. major essays) if approved by the department and stated on the course outline. For evaluations at the end of the semester/course, the results must be given to the student by the grade submission deadline. *Where applicable*: for intensive courses (i.e. intersession, abridged courses), timely feedback must be adjusted accordingly.

Academic Procedure: Academic Integrity, Cheating and Plagiarism (Article 9.1 & 9.2)

Cheating and plagiarism are unacceptable at John Abbott College. They represent infractions against academic integrity. Students are expected to conduct themselves accordingly and must be responsible for all of their actions.

College definition of Cheating

Cheating means any dishonest or deceptive practice relative to examinations, tests, quizzes, lab assignments, research papers or other forms of evaluation tasks. Cheating includes, but is not restricted to, making use of or being in possession of unauthorized material or devices and/or obtaining or providing unauthorized assistance in writing examinations, papers or any other evaluation task and submitting the same work in more than one course without the teacher's permission. It is incumbent upon the department through the teacher to ensure students are forewarned about unauthorized material, devices or practices that are not permitted.

College definition of Plagiarism

Plagiarism is a form of cheating. It includes copying or paraphrasing (expressing the ideas of someone else in one's own words), of another person's work or the use of another person's work or ideas without acknowledgement of its source. Plagiarism can be from any source including books, magazines, electronic or photographic media or another student's paper or work.

For link to interactive tutorial on how to cite sources correctly: <http://citeit.ccdmd.qc.ca>

Tentative Schedule of Readings and Assignments

Jan. 16/18	First Day of Class—Science and Technology Studies Scientific Literacy
Jan. 23/25	The Aesthetics of Science Quiz #1 <i>Quirks and Quarks</i> Quiz #2 Read Martin's "The Egg and the Sperm."
Jan. 30/Feb. 1	Human Experimentation and Tuskegee <i>Tuskegee Truths Presentations assigned and Field Trip Assigned</i> Read Jones' "The Tuskegee Syphilis Experiment" (in course pack)
Feb. 6/8	Tuskegee in Depth Read Marshall's "Racial Classifications" <i>Presentations</i> FIELD TRIP!
Feb. 13/15	Science Defines Racial Difference Read Anne-Fausto-Sterling's "Gender, Race and Nation" Quiz #3 <i>Presentations</i> <i>Course Drop Deadline</i>
Feb. 20/22	Read Alberti's "Objects and the Museum" (available online) <i>Presentations</i> Read Schiebinger's "Anatomy of Difference" Quiz #4
Feb. 27/Mar. 1	Eugenics: Defining Fitness Read Elks' "Clinical Photographs"
Mar. 5-9	READING WEEK (no classes)
Mar. 13/15	Eugenics cont'd Read Proctor's "Nazi Medicine and the Politics of Knowledge" Quiz #5 <i>Eugenics Website Presentations Assigned</i>
Mar. 20/22	<i>Eugenics Website Presentation</i> <i>Essay Assigned</i>
Mar. 27/29	<i>Eugenics Website Presentation</i>
Apr. 3/5	Science Defines Gender and Sexuality How to Tell the Boys from the Girls Watch <i>The Pill</i>
Apr. 10/12	Read Theriot's "Women's Voices in Nineteenth Century Medical Discourse" Quiz #6
Apr. 17/19	Some Contemporary Issues <i>Final Essay Due (25%)</i>
Apr. 24/26	Catch up and Review
May 1/3	<i>TEST (20%)</i> Last Day!

