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The University of Alberta
Faculty of Arts
Media and Technology Studies
STS 200 (A1)
Fall 2021

CLASS TIMES: Tuesdays and Thursdays from 9:30-10:50AM
LOCATION: Edmonton Clinic Health Academy (ECHA) 2-140
INSTRUCTOR: Dr. Nathan Kowalsky
OFFICE HOURS: Tuesdays 2:00-3:00PM and Thursdays 3:00-4:00PM or by appointment
OFFICE: St. Joseph's College (SJC) 0-08 (in the basement across from the bathroom)
PHONE NO.: none
E-MAIL: nek@ualberta.ca

Note: I will only read emails during regular business hours. Emails sent within one business day of an exam or assignment deadline are not likely to be answered prior to the exam or assignment deadline.

"Policy about course outlines can be found in the [Evaluation Procedures and Grading System](#) section of the University Calendar."

Introduction to Studies in Science, Technology and Society

COURSE PREREQUISITE: STS 200 cannot be taken by students with credit in INT D 200.

Course-based Ethics Approval in place regarding all research projects that involve human testing, questionnaires, etc.?

☐ Yes ☒ No, not needed, no such projects involved

Community Service Learning component

☐ Required ☐ Optional ☒ None

Past or Representative Evaluative Course Material available

☐ Exam registry – Exam registry – [Student Union](http://www.su.ualberta.ca/services/infolink/exam/)
<http://www.su.ualberta.ca/services/infolink/exam/>
☒ Representative Exam Material distributed in class.
☐ Other:

CALENDAR DESCRIPTION:

An examination of the interrelations of science, technology, society and environment, emphasizing an interdisciplinary humanities and social sciences perspective.

COURSE OBJECTIVES:

1. To develop an appreciation of modern Western science and technology as a socially contingent reality with a unique and defining intellectual history.
2. To show, by way of illustration and discussion, the relevance of STS theory to contemporary social concerns about science, technology, and the natural environment.
3. To produce critical thinking, speaking and writing about social aspects of science and technology. This will require you, the student, to read and reflect on issues in ways you may never have attempted before.

APPROACH:

Lectures supplemented by in-class discussion and weekly seminars. (Audio or video recording of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course, is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author[s].)

RESOURCES: (If the bookstore sells out of the required resource, you must request another copy from the bookstore.)

1. **Required:** *Selected Readings for STS 200 (A1): Introduction to Studies in Science, Technology and Society*, compiled by Nathan Kowalsky (UofA Custom Courseware, 2021). Available for purchase at the University of Alberta Bookstore in the Student's Union Building (SUB).
2. **Required:** Walter M. Miller, Jr. *A Canticle for Leibowitz*. Available for purchase at the University of Alberta Bookstore in the Student's Union Building (SUB).

COURSE REQUIREMENTS:

Students are expected to have read and reflected on the required reading material prior to attending class. Regular class attendance is assumed. Examinations and assignments may include reference to material exclusive to the lectures, or conversely, to the readings. Students are encouraged to engage in orderly and respectful discussion during class with both the instructor and other students, as time permits. The instructor will make every effort to be available for consultation outside class.

WORKLOAD DISTRIBUTION:

Argument summary (due 5 October 2021 before 4:00PM)	10% of final grade
Mid-term exam (21 October 2021 from 9:30-10:50AM)	25% of final grade
Term paper (due 7 December 2021 before 4:00PM)	35% of final grade
Final exam, cumulative (scheduled for 13 December 2021 at 9:00AM)	30% of final grade

Grades will be based directly on scores for assignments; no curve will be used in grading. However, the instructor reserves the right to adjust grades based on consideration of the student's relative standing in the class, her or his participation in class and/or improvement or deterioration in performance.

GRADING: All evaluated course work (essays & examinations) will be assessed using letter grades (4.0 scale):

A+	4.0 grade points	Outstanding performance	
A, A-	4.0 - 3.7 grade points	Excellent/exceptional performance	Strong evidence of original thinking; good organization; capacity to analyse and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.
B+, B, B-	3.3 - 3.0 - 2.7 grade points	Good performance	Evidence of grasp of subject matter, some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with literature.
C+, C, C-	2.3 - 2.0 - 1.7 grade points	Satisfactory/adequate performance	Student who is profiting from the university experience; understanding of the subject matter and ability to develop solutions to simple problems in the material.
D+, D	1.3 - 1.0 grade points	Poor, minimally acceptable performance	Some evidence of familiarity with the subject matter and some evidence that critical and analytic skills have been developed.
F	0.0 grade points	Inadequate performance	Little evidence of even superficial understanding of subject matter; weakness in critical and analytic skills; limited or irrelevant use of literature.

Missed assignments, essays or examinations will be given an F (i.e., a zero).

Assignments and essays handed in after the deadline will be marked down one letter grade for each day late, including weekends and holidays. All assignments must be submitted in hardcopy at the start of class on the due date or, if the instructor happens to be in his office, before 4:00PM. The 'days' thereafter will be defined as 24-hour periods following the initial 4:00PM deadline. Electronic submissions will not be accepted. Exams may not be written outside of the scheduled time period unless a deferral has been approved by your home Faculty or you've received an accommodation with the Accessibility Office.

ABSENCES:

Approval for an extension or an excused absence from term work or term exams (but not final exams) is at the discretion of the instructor. Students must request approval for missed term work within two working days of the absence (or as soon as possible with due regard for the circumstances). Late penalties will only be waived in accordance with the policy of the University of Alberta, some of the relevant sections of which are as follows:

The University recognizes that occasionally life events occur that require a student to miss term work, term examinations, or final examinations. However, excused absences are not granted automatically and will be considered only for acceptable reasons such as incapacitating mental and/or physical illness, severe domestic affliction, or for circumstances as described in the University's Discrimination, Harassment and Duty to Accommodate Policy (including religious belief). This policy is available on the University of Alberta Policies and Procedures Online (UAPPOL) website at <https://policiesonline.ualberta.ca>. A multi-faith calendar is available at <https://www.ualberta.ca/registrar/calendar/index.html>.

Unacceptable reasons include, but are not limited to, personal events such as vacations, weddings, or travel arrangements. When a student is absent without acceptable excuse, a final grade will be computed using a raw score of zero for the work missed. Any student who applies for or obtains an excused absence by making false statements will be liable under the Code of Student Behaviour.

In cases of potentially excusable absences due to illness or domestic affliction, notify your instructor by email within two days. Regarding absences that may be excusable and procedures for addressing course components missed as a result, consult the University Calendar regarding Attendance (<http://calendar.ualberta.ca/content.php?catoid=6&navoid=806#Attendance>) and Examinations (<http://calendar.ualberta.ca/content.php?catoid=6&navoid=806#Examinations> (Exams)). If the absence is for non-medical reasons, appropriate documentation may be requested. Be aware that unexcused absences will result in partial or total loss of the grade for the "attendance and participation" component(s) of a course, as well as for any assignments that are not handed-in or completed as a result.

ACADEMIC EXPECTATIONS:

The professor will not provide *any* 'notes' for this course. *Students take their own notes* actively and attentively from their participation in lectures, discussions, and reading. The professor may write section headings, keywords & diagrams on the board to facilitate the organization of your notes.

Canadian English conventions for spelling, punctuation and composition must be followed. It is advisable that the essay be proofread by another person before submission, especially for students for whom English is a second language. The University of Alberta offers a vast array of services to its students. In particular, the [Academic Success Centre](#) can help you with essay writing, efficient reading and note-taking strategies, time management, etc. If you are struggling with your essay, this is one place to turn to get help. They are located in room 2-300 of the Student Union's Building. The [Centre for Writers](#) also offers free help with essays, including one-on-one or group tutoring.

One of the goals of this class is to learn to think. By plagiarizing, you not only commit a serious academic offence, but you also demonstrate that you do not satisfy a basic requirement of a university education. Therefore, written work must be the student's own and specifically produced for this course. Any use of resources, whether merely drawing from the views and arguments of others or quoting verbatim, must be properly documented. All students should consult the information provided by the [Office of the Vice-Provost and Dean of Students](#) regarding avoiding cheating and plagiarism in particular and academic dishonesty in general (see the [Academic Integrity Website](#)). If in doubt about what is permitted in this class, ask the instructor. Definitions of plagiarism and cheating are included at the end of this syllabus. An instructor or coordinator who is convinced that a student has handed in work that he or she could not possibly

reproduce without outside assistance is obliged, out of consideration of fairness to other students, to report the case to the Associate Dean of the Faculty of Arts. See the [Academic Discipline Process](#) for more information.

“The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the [Code of Student Behaviour](#) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.”

“In particular, please note:

“No student shall represent another’s substantial editorial or compositional assistance on an assignment as their own. [Code of Student Behaviour §30.3.2(2)C]

“No student shall submit in any course or program of study, without the written approval of the course instructor, all or a substantial portion of academic writing, essay, thesis, research report, project assignment, presentation or poster for which credit has been obtained by the Student or which has previously been or is being submitted by the Student in another course or program of study in the University or elsewhere.” [Code of Student Behaviour §30.3.2(2)D]

LEARNING AND WORKING ENVIRONMENT:

The Faculty of Arts is committed to ensuring that all students, faculty and staff are able to work and study in an environment that is safe and free from discrimination and harassment. It does not tolerate behaviour that undermines that environment. The department urges anyone who feels that this policy is being violated to:

- Discuss the matter with the person whose behaviour is causing concern; or
- If that discussion is unsatisfactory, or there is concern that direct discussion is inappropriate or threatening, discuss it with the Chair of the Department.

For additional advice or assistance regarding this policy you may contact the [Office of the Student Ombuds](#). Information about the University of Alberta Discrimination and Harassment Policy and Procedures is described in UAPPOL at <https://policiesonline.ualberta.ca/PoliciesProcedures/Pages/DispPol.aspx?PID=110>.

SEXUAL VIOLENCE POLICY:

It is the policy of the University of Alberta that sexual violence committed by any member of the University community is prohibited and constitutes misconduct. Resources and more information can be found at <https://www.ualberta.ca/campus-life/sexual-violence>.

ACCESSIBILITY RESOURCES

If you have special needs that could affect your performance in this class, please let your instructor know during the first week of the term so that appropriate arrangements can be made. If you are not already registered with Accessibility Resources, contact their office immediately (2-800 SUB; Email arrec@ualberta.ca; Phone 780-492-3381; Web <https://www.ualberta.ca/current-students/accessibility-resources/index.html>).

PEER SUPPORT & COUNSELLING SERVICES:

The Peer Support Centre, located in room 2-707 of the Students’ Union Building, offers the University community a place to talk to someone for support. Volunteers can assist with both academic and personal problems and can refer you to someone with the appropriate resources or skills if needed. The Peer Support Centre also runs a **help line (780-492-HELP)**. The University offers Counselling & Clinical Services drop-in workshops as well as a variety of counselling services. It is located in room 2-600 of the Students’ Union Building. Go to the Health & Wellness section of the UAlberta website for more information: <https://www.ualberta.ca/current-students/wellness>.

LECTURE OUTLINE:
(subject to change; advance notice will be given as needed.)

I. Introduction

- A. What is STS?
 - 1. Definition
 - Selection 1: Robert McGinn, “Why Study Science and Technology in Society?”
 - 2. Case Study: Digital Media
 - Selection 2: E. M. Forster, “The Machine Stops”
- B. What is Science?
 - Selection 3: Richard Lewontin, “A Reasonable Skepticism”
- C. What is Technology?
 - Selection 4: George Grant, “Thinking About Technology”

II. Prehistory

- A. Myth
 - Selection 5: Ludwig Wittgenstein, *Remarks on Frazer’s Golden Bough*
- B. Agriculture
 - Selection 6: José Ortega y Gasset, “The Hunter – The Alert Man”
 - Selection 7: T. R. Kover, “The Domestic Order and Its Feral Threat”
- C. Writing
 - Selection 8: David Lindberg, “Prehistoric Attitudes Towards Nature”

ARGUMENT SUMMARY DUE: 5 October 2021

III. Premodernity

- A. Classical Greece and Rome
 - Selection 9: Aristotle, *Metaphysics*
- B. Medieval Europe
 - Selection 10: Umberto Eco, *The Name of the Rose*
- C. Christian Anthropocentrism
 - Selection 11: Lynn White, Jr. “The Historical Roots of Our Ecologic Crisis”
 - St. Francis of Assisi, *The Canticle of the Sun*
(<http://www2.webster.edu/~barrettb/canticle.htm>)

IV. Early Modernity

- A. Knowledge as Power
 - Selection 12: Francis Lord Bacon, *Novum Organum*
- B. The Doctrine of Progress
 - Selection 13: Lewis Mumford, *Technics and Civilization*
 - Selection 14: Mick Smith, “The State of Nature”

MID-TERM EXAMINATION: 21 October 2021

- C. The Mechanistic Worldview
 - Selection 15: Charles Gillispie, “Newton with his Prism and Silent Face”
- D. Modernity’s Discontents
 - Selection 16: “Quianlong’s Rejection of Macartney’s Demands: Two Edicts”
 - Selection 17: David Linton, “Luddism Reconsidered”

V. Late Modernity

- A. Positivism
 - Selection 18: Rudolf Carnap et. al., “The Scientific Conception of the World”
- B. The Epistemological Crisis of Science
 - Selection 19: David Hume, “The Idea of Necessary Connection”
 - Selection 20: Thomas Kuhn, *The Structure of Scientific Revolutions*

C. Social Construction and the Science Wars

Selection 21: Bauchspies et. al, "Cultures of Science"

Selection 22: Ian Hacking, *The Social Construction of What?*

D. Technological Neutrality

Selection 23: Langdon Winner, "Do Artifacts Have Politics?"

E. The Technological Society

Selection 24: Jacques Ellul, "Ideas of Technology"

Selection 25 (alternate reading): Pope Francis, *Laudato Si'*

F. Science and Religion

Selection 26: C. S. Lewis, "The Beginning of the End of the World"

Selection 27: Eric Cornell, "What Was God Thinking?"

Selection 28: David Van Biema, "God vs. Science"

G. Science, Technology, and Climate Change

Selection 29: Oreskes & Conway, "Collapse of Western Civilization: A View from the Future"

VI. Review (time permitting)

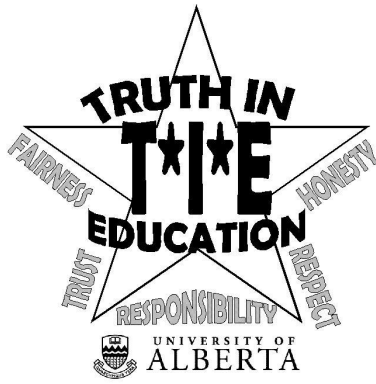
TERM PAPER DUE: 7 December 2021

READING SCHEDULE FOR MILLER'S *CANTICLE*:

Chapters 1-20: finish by 14 October 2021 at the latest (in time for the mid-term examination)

Chapters 21-30: finish by 30 November 2021 at the latest (in time for the term paper)

NOTE: representative exam questions, a footnote guide, and precise instructions for both the argument summary and term paper are provided as separate documents on eClass.



Cheating

- ❖ If you look at someone else's test, get information from someone else's during a test, give someone else information or allow someone to copy from your test, or bring a 'cheat sheet' into a test (even if you don't use it!), that's cheating.
- ❖ If you let someone else write a test, assignment or paper for you, or if you do those things for someone else, that's cheating.
- ❖ If you get too much editing or writing help (to the extent that your paper looks substantially different than it would if you wrote it on your own), that's cheating.
- ❖ If you submit something in a class that has already been submitted and graded in another class, that's cheating.
- ❖ If you include facts or references that you know to be false in any assignment of any kind, that's cheating.

In other words, cheating is dishonest behaviour designed to gain academic advantage. Any work you hand in or do for credit at the University of Alberta **MUST** be done honestly and with integrity!

Code of Student Behaviour – Cheating (§30.3.2(2))

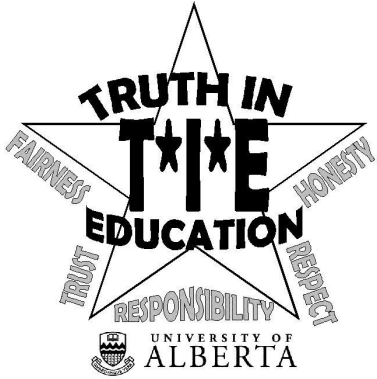
a No Student shall in the course of an examination or other similar activity, obtain or attempt to obtain information from another Student or other unauthorized source, give or attempt to give information to another Student, or use, attempt to use or possess for the purposes of use any unauthorized material.

b No Student shall represent or attempt to represent him or herself as another or have or attempt to have himself or herself represented by another in the taking of an examination, preparation of a paper or other similar activity. See also misrepresentation in 30.3.6(4).

c No Student shall represent another's substantial editorial or compositional assistance on an assignment as the Student's own work.

d No Student shall submit in any course or program of study, without the written approval of the course Instructor, all or a substantial portion of any academic writing, essay, thesis, research report, project, assignment, presentation or poster for which credit has previously been obtained by the Student or which has been or is being submitted by the Student in another course or program of study in the University or elsewhere.

e No Student shall submit in any course or program of study any academic writing, essay, thesis, report, project, assignment, presentation or poster containing a statement of fact known by the Student to be false or a reference to a source the Student knows to contain fabricated claims (unless acknowledged by the Student), or a fabricated reference to a source.



Plagiarism

Plagiarism

- ❖ If you use someone else's exact words without putting them in "quotation marks", that's plagiarism.
- ❖ If you use someone else's idea paraphrased in your own words without indicating where you got the idea, that's plagiarism.
- ❖ If you use data you didn't collect yourself and don't give credit to your source, that's plagiarism.
- ❖ If you use pictures, graphics, images or graphs that you didn't create on your own and don't state where you got them, that's plagiarism.

In other words, ANYTHING you submit as part of a course or program of study that doesn't credit any other sources you've used is assumed to be your own work. Therefore, you **MUST** credit the sources you use. It's the respectful thing to do and it's good academic practice.

Code of Student Behaviour - Plagiarism

§30.3.2(1): No student shall submit the words, ideas, images or data of another person as the Student's own in any academic writing, essay, thesis, project, assignment, presentation or poster in a course or program of study.