

**Science, Technology, and Society (STAS) 343 Lecture 01  
Canadian Science Policy and Technology Development  
Winter 2012**

**TuTh 17:00-18:15**

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**Office Hours:** Tuesdays 10:00 – 12:00 or by appointment

**Course Description**

The course will examine the social, economic and historical factors that have contributed to the development of Canadian science and technology policy. Through a blend of lecture/discussions and the exploration of key historical case studies, we will look at how policy has influenced the development of science and technology in Canada, and explore generally how governments and public sector institutions interact in the process of creating and applying knowledge.

**Objectives of the Course**

Expose students to the basic issues, theories and debates that have shaped science and technology policy in Canada and elsewhere.

Inform students about the institutional structures and mechanisms that pertain to the development of science and technology policy in Canada and elsewhere.

Contextualize the issues and arguments by examining case studies of Canadian developments in five industries – nuclear power, biotechnology, communications, the oils sands and the space program – in which policy and public investment have played defining roles.

Develop critical skills that are needed for the assessment of policy in relation to science and technology. These include skills in locating and retrieving policy-related documentation, critical analysis of the form and rhetoric of policy documentation in a science and technology context, critical evaluation of information sources and institutional positions, and generally those skills needed to assemble, assess and synthesize materials and arguments for purposes of preparing written work.

**Internet and electronic communication device information**

It is disruptive to the learning goals of the course to engage in electronically enabled activities unrelated to the course while teaching sessions are in progress. Students are reminded to turn mobile telephones and other electronic devices off during the sessions and to use laptops for course-related purposes only.

Students expecting emergency communications during a session are exempted from these provisions upon prior notification of the instructor.

Electronic recording of lectures will be permitted only for students who have a formally diagnosed physical or learning disability that requires this action. Written proof of disclosure of such disabilities to the relevant university administrative bodies will be required before such permission is granted (refer to the Students with Disabilities section below).

### **Textbooks and Readings:**

A Reading Package is available at the bookstore. All readings are in the package, unless otherwise indicated. Any additional assigned readings (as noted on the syllabus) will be accessible on Blackboard.

### **Assignments and Evaluation**

#### 1. Mid-term paper (25%) - *Due Feb 16th*

Based upon the content discussed in weeks 1-6, students will prepare a short paper (5-7 double spaced pages) discussing how the policies and measures laid out in a recent Federal government science and technology strategy document (to be identified in Week 1 and posted on Blackboard) might apply positively or negatively to the development of science and technology in Canada.

#### 2. In-Class Mid-Term Quiz (20%) – *March 1st*

A one-hour quiz, which may include both written (short and long answer) and multiple choice questions, will test students on key concepts drawn from the readings assigned for weeks 1-6 and from the lecture notes (available following each lecture on Blackboard).

#### 3. Term Paper (35%) *Due last day of class. (April 12th)*

Students will prepare a research paper (10-12 double spaced pages) that discusses any issue related to the course material. Students will be expected to locate and draw upon both the academic literature and relevant policy documentation pertaining to the issue (e.g. policy statements, reports and studies).

#### 4. Registrar-scheduled Final Exam (20%)

A one hour exam, which may include both written (short and long answer) and multiple choice questions, will test students on their ability to apply key concepts discussed in the first six weeks to the case studies discussed in the latter part of the course.

It is the student's responsibility to keep a copy of each submitted assignment.

Note: Please hand in your essays directly to your tutor or instructor if possible. If it is not

possible to do so, a daytime drop box is available in SS320; a date stamp is provided for your use. A night drop box is also available for after-hours submission. Assignments will be removed the following morning, stamped with the previous day's date, and placed in the instructor's mailbox.

**Registrar-scheduled Final Examination:** Yes

### **Policy for Late Assignments**

Assignments submitted after the deadline may be penalized with the loss of a grade (e.g.: A- to B+) for each day late.

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

This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIP). As one consequence, **students should identify themselves on all written work by placing their name on the front page and their ID number. Also you will be required to provide a piece of picture identification in order to pick up an assignment or look at a final exam from SS320 after classes have ended.**

For more information see also <http://www.ucalgary.ca/secretariat/privacy>.

### **Writing Skills Statement**

Department policy directs that all written assignments (including, although to a lesser extent, written exam responses) will be assessed at least partly on writing skills. For details see <http://www.comcul.ucalgary.ca/needtoknow>. Writing skills include not only surface correctness (grammar, punctuation, sentence structure, etc) but also general clarity and organization. Research papers must be properly documented. If you need help with your writing, you may use the Writing Centre. Visit the website for more details: [www.efwr.ucalgary.ca](http://www.efwr.ucalgary.ca)

### **Grading System**

The following grading system is used in the Department of Communication and Culture: (Revised, effective September 2008)

	Grading Scale
A+	96-100
A	90-95.99
A -	85-89.99
B+	80-84.99
B	75-79.99
B-	70-74.99
C+	65-69.99
C	60-64.99

C-	55-59.99
D+	53-54.99
D	50-52.99
F	0-49

Where a grade on a particular assignment is expressed as a letter grade, it will normally be converted to a number using the midpoint of the scale. That is, A- would be converted to 87.5 for calculation purposes. F will be converted to zero.

### **Plagiarism**

Using any source whatsoever without clearly documenting it is a serious academic offense. Consequences include failure on the assignment, failure in the course and possibly suspension or expulsion from the university.

You must document not only direct quotations but also paraphrases and ideas where they appear in your text. A reference list at the end is insufficient by itself. Readers must be able to tell exactly where your words and ideas end and other people's words and ideas begin. This includes assignments submitted in non-traditional formats such as Web pages or visual media, and material taken from such sources.

Please consult your instructor or the Writing Centre (MacEwan Student Centre 4<sup>th</sup> floor, [efwr.ucalgary.ca](http://efwr.ucalgary.ca)) if you have any questions regarding how to document sources.

### **Academic Misconduct**

For information on academic misconduct and the consequences thereof please see the current University of Calgary Calendar at the following link;  
<http://www.ucalgary.ca/pubs/calendar/current/k.html>

### **Students with Disabilities**

If you are a student with a disability who may require academic accommodation, it is your responsibility to register with the Disability Resource Centre (220-8237) and discuss your needs with your instructor no later than fourteen (14) days after the start of the course.

### **Students' Union**

For details about the current Students' Union contacts for the Faculty of Arts see  
<http://www.su.ucalgary.ca/governance/elections/home.html>

### **Student Ombudsman**

For details on the Student Ombudsman's Office see  
<http://www.su.ucalgary.ca/services/student-services/student-rights.html>

## Emergency Evacuation and Assembly points

For information on the emergency evacuation procedures and the assembly points see <http://www.ucalgary.ca/emergencyplan/assemblypoints>

## "SAFEWALK" Program -- 220-5333

Campus Security will escort individuals day or night -- call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phone located at most parking lot booths.

## Ethics

Whenever you perform research with human participants (i.e. surveys, interviews, observation) as part of your university studies, you are responsible for following university research ethics guidelines. Your instructor must review and approve of your research plans and supervise your research. For more information about your research ethics responsibilities, see

The Department of Communication and Culture Research Ethics site:  
<http://www.comcul.ucalgary.ca/ethics>

or the University of Calgary Research Ethics site:  
<http://www.ucalgary.ca/research/compliance/ethics/info/undergrad/>

## Schedule of Lectures and Readings

	Date	Topic/activity	Readings (by author in reader)
1	Tues, Jan 10	Introduction and organization	N/A
	Thu, Jan 12	Canada's science and technology policy	TBA (Blackboard)
2	Tues, Jan 17	Science and policy - theory	Nelson, Gibbons
	Thu, Jan 19	Science and policy - application	Gerrard
3	Tues, Jan 24	Technology and policy - theory	Feller, Salazar & Holbrook
	Thu, Jan 26	Technology and policy - application	Cozzarin
4	Tues, Jan 31	Science, technology and the public interest I Knowledge as property	MacDonald
	Thu, Feb 2	Science, technology and the public interest I Knowledge collaboration and transfer	Cohen, Nelson & Walsh
5	Tues, Feb 7	Science, technology and the public interest II Public perceptions	Hennen; de la Moth

	Thu, Feb 9	Science, technology and the public interest II Risk	Liess, Slovic
6	Tues, Feb 14	Science "Canadian style"?	Zeller
	Thu, Feb 16	Technology "Canadian style"?	DeBresson & Lampel
	Tues, Feb 21	Reading week	
	Thu, Feb 23		
7	Tues, Feb 28	Review and questions	NA
	Thu, Mar 1	<b>mid-term quiz</b>	
8	Tues, Mar 6	Case 1: Nuclear power (exposition)	Cowan
	Thu, Mar 8	Case 1: Nuclear power (discussion)	
9	Tues, Mar 13	Case 2: Bio-technology (exposition)	Carew
	Thu, Mar 15	Case 2: Bio-technology (discussion)	
10	Tues, Mar 20	Case 3: Communications (exposition)	Abramson & Raboy
	Thu, Mar 22	Case 3: Communications (discussion)	
11	Tues, Mar 27	Case 4: The Alberta Oil Sands (exposition)	Chastko
	Thu, Mar 29	Case 4: The Alberta Oil Sands (discussion)	
12	Tues, Apr 3	Case 5: The space program (exposition)	Handberg, Gainor
	Thu, Apr 5	Case 5: The space program (discussion)	
13	Tues, Apr 10	Synopsis, final review and questions	N/A
	Thu, Apr 12	What did we learn?	N/A
<b>Registrar scheduled Final Exam</b>			