DEPARTMENT
OF
SCIENCE AND TECHNOLOGY
STUDIES

FACULTY OF SCIENCE
York University

Undergraduate
Mini-Calendar
2014-15

Message from the Department Chair

Welcome to the Department of Science and Technology Studies! The Department of STS had its official start on May 1st, 2014, making it York's newest department.

Although the formal structure of STS is new, our degree programs and STS itself have been a part of York for many years. We continue to offer BSc and BA degrees in STS, as we did for the previous eight years, when STS was an interfaculty, interdisciplinary program. Before 2006 York offered STS in two similar programs, the STS Program in the Atkinson Faculty and the Science and Society Program in the Faculty of Arts. The Atkinson program, founded in 1975, was the first Canadian degree program in STS; the Arts faculty program came into existence in 1991. The new Department of STS reflects many years of fruitful collaboration by York professors dedicated to teaching and scholarship in STS. We look forward to the years ahead and a bright future for STS at York.

With over a dozen faculty members teaching STS in 2014-15, our program is one of the largest and most broadly based in the world. We are proud of our high-quality teaching and research, and of the excellent students who we have been able to attract. Our program continues to move beyond its undergraduate base as we enroll our fifth class of graduate students pursuing either an MA or a PhD in Science & Technology Studies.

Ernst Hamm, Chair

Things to Note for 2014-15

As of the Summer 2013 session, almost all STS courses are now 3 credits each. STS4501 remains a 6-credit course. For majors and minors, the required credit totals remain the same.

If you are a new student to the Program, please note that the requirement for the introductory courses changed in 2013-14. All new students will take STS2411 3.00 Introduction to STS (now a 3-credit course) plus either STS2010 3.00 History of Modern Science or STS 2210 3.00 Technology in the Modern World. This does not apply to students who have successfully complete STS2411 6.00.

If you contemplate majoring in STS for a BSc degree, the requirements changed in 2013-14 and students now entering the program will follow the new regulations. Those who started in the Program before 2013 will continue to follow the old regulations. Both are at the end of this Mini-Calendar.

Contacts

Chair: Professor Ernst Hamm, 305 Bethune College, 416-736-2100 x 20223 (ehamm@yorku.ca)

Program Assistant: Sindy Mahal, 218 Bethune College, 416-736-2100, x 30304 (stsadmin@yorku.ca)

Departmental Website: www.sts.yorku.ca

About this Mini-Calendar

This *Science and Technology Studies Undergraduate Mini-Calendar* supplements the *York University Undergraduate Calendar*, available on York's website. We have tried to ensure that all the information in the *Science and Technology Studies Undergraduate Mini-Calendar* is accurate but there may be discrepancies. If you find any errors, please bring them to our attention. The *York Calendar* is the official, final word. While this publication attempts to be up to date at the time it goes to press, inevitably matters will change or errors will be detected, and corrected. For the latest information students are encouraged to visit our website www.sts.yorku.ca. It is each student's responsibility to understand the regulations of his or her degree program. We are, however, always willing to provide you with advice and the latest information on course offerings. Please visit the STS Department's Undergraduate Program Office in 218 Bethune for advising.

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About the Department

York's Science and Technology Studies (STS) is an interdisciplinary department unlike any other in Canada, providing several routes to a BA or a BSc degree. Its purpose is to expand our understanding of science and technology by exploring their social, cultural, philosophical, and material dimensions. To achieve that purpose, its undergraduate program draws upon the disciplines of the humanities and social sciences to offer courses treating specific scientific ideas, as well as courses addressing broader topics such as science and gender, science and religion, and technology and cultural values.

Students are encouraged to draw connections across traditional boundaries to gain an appreciation of the role of the sciences and technology in understanding and shaping the world and ourselves. Students will learn to analyse complex scientific and technological ideas, and discover how to trace the origins and implications of events and patterns of thought in the past and present.

The small class sizes of our STS Undergraduate program create a more personal atmosphere, where one can develop individual relationships both with professors and other students. Undergraduate students have the opportunity to work on research projects with faculty.

STS graduates are well- equipped for employment in science journalism, museum work, and science policy as well as for future studies in law, medicine, and education. Several of our students have also gone on to graduate studies in the field.

Faculty members in STS are prominent in a variety of scholarly societies such as the History of Science Society, Society for the History of Technology, Society for the Social Studies of Science, Canadian Society for History & Philosophy of Science, Canadian Society for History & Philosophy of Mathematics, and the Canadian Science and Technology Historical Association.

Advising

For general regulations specific to the Faculty in which a student is enrolled, refer to Faculty websites and speak with advisers at Science Academic Services. Early in September 2014, you may book an advising meeting with the Chair to review your progress, current status and future plans

STS Seminar Series and Graduate Studies

The STS Research Seminar is one of the longest-operating public colloquia at York. Held on Tuesdays at the noon hour, the Seminar brings together local and international scholars in a wide variety of STS areas.

These talks are open to all and as STS students you will find them intellectually accessible and interesting. Posters and our website will provide information on events. In addition, our Institute for Science and Technology Studies brings well-known scholars to York for public talks and workshops. Most of these events are open to all.

If you are working towards an honours degree in STS, you may want to investigate applying for the MA program in STS at York. For enquiries, contact Sindy Mahal (stsadmin@yorku.ca).

STS Student Association

The Science and Technology Studies Student Association is a student-led group for undergraduates in the STS department at York University. Its purpose is to build a strong student-led community, promote the STS department on campus, advocate for increased resources and create opportunities for students to engage in academic and non-academic experiences outside of the classroom. There are many opportunities for executive and other volunteer positions and everyone is invited to bring their own ideas and skills to the table.

STS Library Liaison

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Slater, Ian
Course Director, Science and Technology Studies, 416-736-5021 (slater@yorku.ca)

Courses in Science and Technology Studies

This is the current list of courses offered by members of the STS Program. All these courses count as STS courses in one of our degree streams. From time to time, other courses, depending upon how they are taught and by whom, may be counted for STS degree credit. You should check with the STS Program Assistant Sindy Mahal (stsadmin@yorku.ca) before enrolling in such a course.

Please note: Beginning in 2013-14, a number of courses have been replaced with new ones and most courses have been converted to 3 credits.

For day/time and room locations, please see the **Course Timetables page** on the Registrar's website, at https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.

Courses offered in 2014-15 are marked with an asterisk (*).

***SC/STS 2010 3.00 History of Modern Science**
This course explores some of the central issues and theories in the history of physical and life sciences since the Renaissance. The focus is on the institutional trends and changing conceptual frameworks as they related to larger societal change. Course Credit Exclusions: AK/HIST 2120 6.0, AK STS 2010 6.0, SC/ STS 2010 6.0, AP/ HIST 2810 6.0. Cross-listed to: AP/HIST 2810 3.00.

***SC/STS 2110 3.00 Truth, Theory and Superstition**
Scientific revolutions can implicate changes outside science, e.g., in interpreting religious text or abandoning creationism. An introduction to puzzling philosophical issues concerning changes in knowledge, scientific method, facts, progress, intellectual legitimacy, and implied values, even beyond communities of scientists.
Cross-listed to: AP/PHIL 2110 3.00, formerly AK/PHIL 2110 3.00.

***SC/STS 2210 3.00 Technology in the Modern World**
This course examines the critical interconnections among technology, politics, culture, the arts, the sciences and social life. Specific topics will vary from year to year, covering social and historical contexts that may include Europe, North America, Africa, and Asia between 1500 and the present. Course credit exclusions: SC/STS 3700 6.0, AP/HUMA 3700 6.0. Cross-listed to: AP/HUMA 2210 3.00, AP/HIST 2822 3.00

***SC/STS 2411 3.00 Introduction to Science and Technology Studies**
This course introduces students to the interdisciplinary field of science and technology studies. Using case studies it considers how knowledge about science and technology develops. It analyses the social responsibility of the scientist and the public engagement with technoscientific expertise. Course credit exclusion: SC/STS 24116.00, AP/HUMA 2411 6.00.

***SC/STS 3170 3.00 Philosophy of Science**
An examination and critique of the history, fundamental assumptions, and methodologies of science. Topics to be discussed may include the nature of scientific theories, the problem of induction, theories of probability, and the demarcation and growth of scientific knowledge. Pre-requisite: at least 6 credits of Philosophy or STS. Course credit exclusion: AK/PHIL 3175 3.00, AS/PHIL 3170 3.00 Cross-listed to: AP/PHIL 3170 3.00, formerly AS/PHIL 3170 3.00.

SC/STS 3226 3.00 Representations of Nature: Cultural and Historical Perspectives
This course examines the techniques of visual representations in science, analyzing the historical and cultural contexts of specific practices of representation. Course credit exclusion: AP/HUMA 4226 3.00. PRIOR TO FALL 2009: Course credit exclusions: AS/HUMA 4225A 6.00 (prior to Fall/Winter 2003-2004), AS/HUMA 4226 6.00. Cross-listed to AP/HUMA 3226 3.00.

***SC/STS 3400 3.00 Thinking with Things: Material Culture in Science and Technology Studies**
This course examines principles and techniques used in evaluating the material culture of science and technology to explore connections to ideas, practices, and values of a particular era. Students apply methods of analysis to understand material culture in context. Prerequites: Completion of 24 credits. Course credit exclusion: None.

SC/STS 3500 3.00 The Global Information Society
This course examines current national information societies and their possible transformation into a global information society by analyzing the interplay between the causes for the globalization of information and communication technologies, as well as the societal impact of these technologies. Course credit exclusion: AK/STS 3500 3.00. Cross-listed to: AP/SOSC 3500 3.00, formerly AS/SOSC 3500 3.00.

SC/STS 3506 3.00 Scientific Modernity in East Asia: Crisis, Reinvention, and Identity
This course explores the role of science in East Asian thinkers' self-conscious construction of modernity in the long 20th century (roughly 1850-present), with balanced attention to the dynamics of East Asian history and science as a cultural phenomenon. Course credit exclusions: None.

SC/STS 3550 6.00 Science as Practice and Culture: Introduction to the Anthropology of Science and Technology
Examines anthropological studies of science and technology to explore the power of scientific facts in contemporary cultures. Considers how facts are produced and stabilized in scientific laboratories, how facts are made to travel, and how we incorporate facts in our daily lives and practices. Key themes include: the politics of science in relation to race, gender, identity, and capitalism. Cross-listed to: AP/ANTH 3550 6.00, formerly AS/ANTH 3550 6.00.

***SC/STS 3561 3.00 History of Computing and Information Technology**
This course examines the evolution of computing and information technology in a broad social, cultural, and historical context, with special emphasis on developments since the early 20th century. Course credit exclusions: AK/STS 3700B 3.00, AK/STS 3700B 6.00, AK/STS 3710 3.00, AK/STS 3710 6.00. Cross-listed to: AP/SOSC 3561 3.00.

SC/STS 3600 3.00 Technological Failure
This course challenges our common understandings of why technologies fail. Using approaches drawn from history, sociology and philosophy of technology, it critically examines the complex relationships between human action, the social contexts of knowledge and the proper functioning of machines. Course credit exclusions: AK/STS 3600 6.00 and SC/STS 3600 6.00.

***SC/STS 3725 3.00 Science and Exploration**
Systems of knowledge and technologies utilized in scientific exploration are investigated within the socio political context of borderlands, colonialism and modern progress. Course exclusion STS 3725 6.0.

SC/STS 3726 3.00 Technology, Experts and Society
A critical examination of the introduction and adoption of new technologies and the rise of expert knowledge. Specific historical examples of modern technologies will be considered in order to explore the relationship between society and technology. Course credit exclusions: AK/STS 2700 3.00, SC/STS 2700 3.00, AS/SOSC 2700 3.00.

SC/STS 3730 3.00 Science, Technology, and Modern Warfare
Explores the interplay between warfare, scientific development, and technological change in a broad societal context through a series of representative case-studies from the past and the present. Enhances students' understanding of some of the main forces that shape our world. Course credit exclusion: SC/STS 3730 6.00.

***SC/STS 3740 3.00 Life Sciences in Modern Society**
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.

***SC/STS 3755 3.00 Emergence of Cosmology as Science**
A social and intellectual study of cosmology from Newtonian times to the present. The focus will be upon philosophical issues, the nature of astronomical and physical evidence and the convergence of theoretical physics with astronomy in the late 20th century.

***SC/STS 3760 3.00 Nature, Knowledge and New Worlds, 1500-1800**
An in-depth examination of the cultural, social, technological and intellectual context of a formative period in the history of modern science. Course credit exclusions: AK/HIST 3810 6.00, AK/HIST 3570 6.00, AK/STS 3760 6.00, SC/STS 3760 6.0 and AP/HUMA 3760 6.0 . Cross-listed to AP/HUMA 3760 3.00.

SC/STS 3765 3.00 Natures of Experiment
This course is a focused exploration of the history, philosophy, and social dimensions of experimentation. It explores the development of the category of experiment, the probing of the physical world, experiment's relation to theory, and its claims to knowledge.

SC/STS 3775 3.00 Physics in the 20th Century
This course examines both the philosophical questions raised by historical developments in modern physics and historical-scientific questions raised by philosophical inquiry. Note: No background in physics required. Readings include scientific, historical and philosophical texts.

***SC/STS 3780 3.00 Biomedical Science in Social & Historical Context**
An examination of the changing nature of biomedical research, concepts, and practices since 1800. Topics for socio-historical analysis include: public health, physiology, microbiology, risk factors, diagnostic technologies, drug development and policy, immunology, and genetic medicine. Course credit exclusions: AK/STS 3780 6.00, SC/STS 3780 6.0, AP SOSC 3780 6.0.

SC/STS 3790 3.00 Science and Technology Issues in Global Development
This course analyzes epistemologies of science and technology as well as indigenous knowledge. It analyzes interdisciplinary, the development of research priorities in science, communication of and within sciences and questions of public credibility, legitimacy, and salience of scientific advances. Course credit exclusions: SC/STS 3790 6.0; AP/SOSC 3790 6.0

AP/SOCI 3940 3.00/6.00 Sociology of Scientific Controversies
Contemporary controversies such as cloning, genetics and race, climate change, AIDS treatment, and DNA fingerprinting are used to foreground the social and cultural processes which shape knowledge. Course credit exclusions: AS/SOCI 3940 3.00.

SC/STS 3970 3.00 Science and Gender in Modern Western Culture
This course analyzes the gendered nature of modern Western scientific culture. It draws on literary, historical, and philosophical sources, films, and contemporary feminist writings. Course credit exclusions: None. Cross-listed to: AP/HUMA 3970 6.00, formerly AS/HUMA 3970 6.00.

SC/STS 3975 3.00 Science and Religion in Modern Western Culture
Examination of the relationship between science and religion through a study of the implications of the following intellectual developments for religious thought: the rise and triumph of Newtonian science, the Darwinian revolution, relativity theory, quantum physics, "big bang" theory, and creationism. Course credit exclusions: AS/HUMA 3500H 6.00 (prior to Fall/Winter 2000-2001), AS/HUMA 3975 6.00. Cross-listed to: AP/HUMA 3975 3.00, formerly AS/HUMA 3975 3.00.

***SC/STS 4110 3.00 Seminar in Philosophy of Science**
An intensive examination of contemporary philosophical problems concerning the growth of science and technology selected from interpretations of theory, of models, of presumed facts, of presumed progress, of experimental technique, and of the place of values in science and technology. Pre-requisite: At least nine credits of philosophy or STS. Cross-listed to AP/PHIL 4110 3.00, formerly AS/PHIL 4110 3.00.

SC/STS 4227 3.00 Minds and Matters in Victorian Culture
Through a reading of the contemporary scientific literature on materialism, the mind and the economy, this course examines Victorian debates on science and its application to pressing moral and social problems. Course credit exclusions: AS/HUMA 4225B 6.00 (prior to Fall/Winter 2003-2004), AS/HUMA 4227 6.00. Cross-listed to: AP/HUMA 4227 3.00 and AP/HIST 4810 6.00.

SC/STS 4228 3.00 Nature in Narrative
This course explores narratives of nature in both scientific & literary texts. Course credit exclusions: PRIOR TO FALL 2009: Course credit exclusions: AS/HUMA 4225C 6.00 (prior to Fall/Winter 2003-2004), AS/HUMA 4228 6.00. Cross-listed to AP/HUMA 4228 3.00.

SC/STS 4230 3.00 Informational Identities: The Self in the Age of Technology
This course examines the effects of technologies of information and communication upon the construction and functioning of a personal identity. The course also examines the cultural, political, psychological and spiritual dimensions of recent changes in the nature of personal identity. Course credit exclusion: AP/HUMA 4230 3.00. PRIOR TO FALL 2009: Course credit exclusions: AS/HUMA 4225E 6.00 (prior to Fall/Winter 2003-2004), AS/HUMA 4230 6.00. Cross-listed as AP/HUMA 4230 3.00.

***SC/STS 4501 6.00 Seminar in Science & Technology Studies**
This seminar builds upon students' existing skills in science and technology studies. It will familiarize students with central themes in this interdisciplinary field that have emerged from efforts in history, philosophy, and social studies of science and technology. Prerequisites: Completion of STS 2411 6.00 (formerly AK/STS 1010, prior to FW09), or written permission of the Course Director. Course credit exclusions: AK/STS 4720 6.00 (prior to Fall/Winter 2006-2007). Cross-listed to: AP/HUMA 4501 6.00, AP/SOSC 4501 6.00, formerly AS/HUMA 4501 6.00, AS/SOSC 4501 6.00.

***SC/STS 4560 3.00 Anthropology of Science and Technology**
Examines anthropological studies of science and technology to explore the power of scientific facts in contemporary cultures. Considers how facts are produced and stabilized in scientific laboratories, how facts are made to travel, and how we incorporate facts in our daily lives and practices. Key themes include the politics of science in relation to race, gender, identity, and capitalism.
Course credit exclusions: AP/ANTH 3550 6.00 (prior to Fall 2013), SC/STS 3550 6.00 (prior to Fall 2013. PRIOR TO FALL 2009: Course credit exclusions: AS/ANTH 3550 6.00 and SC/STS 3550 6.00.

***SC/STS 4700 3.0/6.0 Independent Research in Science and Technology Studies**
This course offers the opportunity to design and pursue a course of individualized study in consultation with the STS Chair and proposed course director. Students must be accepted by a faculty supervisor before registering for SC/STS 4700 3.00 and must have permission from the STS Chair. Prerequisites: 78 credits and permission of the STS Chair. Course credit exclusion: AK/STS 4700 3.00, AK/STS 4700 6.00, SC/STS 4700 6.00, AK/STS 4710 6.00, SC/STS 4710 6.00.

***SC/STS 4710 6.00 Honours Thesis in Science and Technology Studies**
Original research undertaken by a student under the supervision of a thesis committee. Note: Open only to honours students in Science and Technology Studies. Prerequisites: 78 credits and permission of the STS Chair. Course credit exclusion: AK/STS 4700 3.0, SC/STS 4700 3.0, AK/STS 4700 6.0, SC/STS 4700 6.0, AK/STS 4710 6.0, STS/SOCI 3940 3.0, STS/SOCI 3940 6.0.

SC/STS 4780 3.00 Epidemics and the Modern World: Local, National & Global Configurations of Disease
This course explores the changing interactions between epidemic disease, governance, and scientific knowledge since the nineteenth century. Widespread infections, pathological outbreaks, and emerging diseases are examined at the local, national, and global levels as both historical agents and as constructs. Course credit exclusion: AK/STS 3780 6.00, SC/STS 3780 6.0, AP/ SOSC 3780 6.0. Cross-listed to AP/HIST 4088 3.00. Pre-requisites: 60 credits of which 3 credits are drawn from 3000 level STS or HIST courses; or permission of the instructor.

SC/STS 4785 3.00 Science, Health and Food
This course examines how knowledge is generated and validated in health and food sectors through analysis of studies, statistics, publications, evidence based medicine, government regulation and policy in Canada, the USA and the EU. Case studies will detail controversial issues. Prerequisites: Completion of 60 credits.

AP/SOCI 4930 6.00 Sociology of Science and Technology
This course focuses on the role of science and technology in social life, especially examining the contributions of human agency to creating and sustaining a social-cultural world that is infused with scientific knowledge and technological know-how. Course credit exclusions: AS/SOCI 4930 6.00.

Program Requirements

The Department of Science and Technology Studies (STS) offers several degree streams leading to either a BA or a BSc degree. **While the undergraduate program's requirements are the same for both BA and BSc students, the courses outside the program differ.** If you have any questions that are not answered in these pages, please discuss them with the Chair. **Please note that *York University Undergraduate Calendar* provides the definitive statements concerning program requirements.**

- **If you wish to pursue a BA in Science and Technology Studies, see Section 1 below, page 15.**
- **If you wish to pursue a BSc major or minor in Science and Technology Studies, see Section 2 below for the new regulations, page 17.**
- **If you are currently a BSc major or minor, the old regulations are in Section 3 below, page 21.**

Section 1: Requirements for BA Degrees in STS

There are **three** required courses for all BA streams:

SC/STS 2411 3.00; either SC/STS 2010 3.00 or SC/STS 2210 3.00; SC/STS 4501 6.00.

General Education

All students in the Faculty of Liberal Arts & Professional Studies must fulfill the General Education requirements. Please speak with an Academic Advisor or see http://www.yorku.ca/laps/courses/gen_education.html for more information.

Bachelor Program (90 credits)

Students will take at least 30 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- 18 additional credits chosen from the Science and Technology Studies list of courses.

Honours BA Program (120 credits)

Students must complete at least 48 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;

- 36 additional credits chosen from the Science and Technology Studies list of courses, including at least six credits at the 4000 level.

Honours (Double Major) Program (120 credits)

Science and Technology Studies may be pursued jointly with any other Honours Bachelor's degree program in the Faculty of Liberal Arts & Professional Studies, Environmental Studies, or Fine Arts.

Students must complete at least 42 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS2411 6.00;
- AP/HUMA/SOSC SC/STS4501 6.00;
- 30 additional credits chosen from the Science and Technology Studies list of courses, including at least six credits at the 4000 level.

Honours (Double Major) Interdisciplinary Programs (120 credits)

Science and Technology Studies may be linked with any Honours (Double Major) Interdisciplinary BA program in the Faculty of Liberal Arts & Professional Studies. Students must take at least 36 credits in Science and Technology Studies and at least 36 credits in the interdisciplinary program. Courses taken to meet the Science and Technology Studies requirements cannot also be used to meet the requirements of the interdisciplinary program. Students in these interdisciplinary programs must take a total of at least 18 credits at the 4000 level, including at least 12 credits in Science and Technology Studies and six credits in the interdisciplinary program. For further details of requirements, see the listings for specific Honours (Double Major) Interdisciplinary BA Programs.

The 36 credits in Science and Technology Studies must include the following:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- 24 additional credits chosen from the Science and Technology Studies list of courses, including at least six credits at the 4000 level.

Honours (Major/Minor) Program (120 credits)

Science and Technology Studies may be pursued jointly with any Honours Minor Bachelor's degree program in the Faculty of Liberal Arts & Professional Studies, Environmental Studies, or Fine Arts.

Students must complete at least 42 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- 30 additional credits chosen from the Science and Technology Studies list of courses, including at least six credits at the 4000 level.

Honours (Minor) Program (120 credits)

The Honours Minor must be pursued jointly with an Honours BA program in the Faculty of Liberal Arts & Professional Studies, Environmental Studies, or Fine Arts.

Students must complete at least 30 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- 18 additional credits chosen from the Science and Technology Studies list of courses.

Note: **Faculty of Liberal Arts & Professional Studies** legislation requires that, in order to obtain an Honours BA (120 credits), students must take a total of at least 18 credits at the 4000 level, including at least 12 credits at the 4000 level in each Honours Major or Specialized Honours major.

Section 2: Requirements for BSc Degrees in STS

Note: these regulations apply to students who declare a major or minor in STS in the summer of 2013 or later. For those already majoring or minoring in STS, the previous regulations (page 21) apply.

BSC DEGREE REQUIREMENTS FOR SCIENCE AND TECHNOLOGY STUDIES

The program core is defined as: SC/STS 2411 3.00; either SC/STS 2010 3.00 or SC/STS 2210 3.00; SC/STS 4501 6.00.

Bachelor Program

A. General Education:

- Non-science requirement: 12 credits;
- Mathematics: six credits from: SC/MATH 1505 6.00, SC/MATH 1013 3.00, SC/MATH 1014 3.00, SC/MATH 1300 3.00, SC/MATH 1310 3.00, SC/MATH 1021 3.00, SC/MATH 1025 3.00; (note that SC/MATH 1013 3.00 and SC/MATH 1300 3.00 are course credit exclusions, as are SC/MATH 1014 3.00 and SC/MATH 1310 3.00);
- Computer science: three credits from SC/CSE 1520 3.00, SC/CSE 1530 3.00, SC/CSE 1540 3.00 or SC/CSE 1020 3.00;
- Foundational science: six credits from: SC/BIOL 1000 3.00, SC/BIOL 1001 3.00 (or SC/BIOL 1010 6.00), SC/CHEM 1000 3.00, SC/CHEM 1001 3.00, SC/PHYS 1010 6.00 or SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00.

B. Major requirements:

- The program core as specified above (12 credits);
- an additional 18 credits from the approved science and technology studies major courses including at least 12 major credits at the 3000 level or above, for a total of a minimum of 30 credits from science and technology studies major courses,
- at least 18 science credits at the 2000 level or higher non-science and technology studies major courses..

C. Science breadth: satisfied within the major requirements.

D. Upper level requirements: a minimum of 18 credits at the 3000 level or above.

E. Additional credits, as required, for an overall total of 90 credits.

F. Standing requirements: a minimum overall grade point average of 4.00 (C) is required in order to be eligible to graduate with a BSc degree (bachelor program).

Honours Programs

Specialized Honours Program

A. General education:

- non-science requirement: 12 credits;
- mathematics: six credits from: SC/MATH 1505 6.00, SC/MATH 1013 3.00, SC/MATH 1014 3.00, SC/MATH 1300 3.00, SC/MATH 1310 3.00, SC/MATH 1021 3.00, SC/MATH

1025 3.00; (note that SC/MATH 1013 3.00 and SC/MATH 1300 3.00 are course credit exclusions, as are SC/MATH 1014 3.00 and SC/MATH 1310 3.00);

- computer science: three credits from SC/CSE 1520 3.0, SC/CSE 1530 3.00, SC/CSE 1540 3.00 or SC/CSE 1020 3.00;
- foundational science: six credits from: SC/BIOL 1000 3.00, SC/BIOL 1001 3.00 (or SC/BIOL 1010 6.00), SC/CHEM 1000 3.00, SC/CHEM 1001 3.00, SC/PHYS 1010 6.00 or SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00.

B. Major requirements:

- the program core as specified above (12 credits);
- an additional 42 credits from the approved science and technology studies major courses (for a total of 54 science and technology studies credits, including at least 18 credits at the 3000 or higher level, of which at least 12 are at the 4000 level);
- at least 18 science credits at the 2000 level or higher that are *not* science and technology studies courses.

C. Science breadth: satisfied within the major requirements.

D. Upper level requirements: a minimum of 42 credits at the 3000 level or above.

E. Additional elective credits, as required, for an overall total of 120 credits.

F. Standing requirements: To graduate in an Honours program requires successful completion of all Faculty requirements and departmental required courses and a minimum cumulative credit-weighted grade point average of 5.00 over all courses completed.

Honours Double Major and Honours Major/Minor Programs

An Honours Major in science and technology studies may be combined with an Honours Major in another subject area in a BSc Double Major degree program, or with an Honours Minor in another subject area in an Honours Major/Minor BSc degree program. Possible subject combinations are listed under Undergraduate Degree Programs in the Faculty of Science and Engineering Undergraduate Degree and Certificate Programs section.

Students should consult with a departmental adviser to plan their studies in order to meet the program requirements for both majors and their prerequisites.

A. General education:

- non-science requirement: 12 credits;
- mathematics: six credits from: SC/MATH 1505 6.00, SC/MATH 1013 3.00, SC/MATH 1014 3.00, SC/MATH 1300 3.00, SC/MATH 1310 3.00, SC/MATH 1021 3.00, SC/MATH 1025 3.00; (note that SC/MATH 1013 3.00 and SC/MATH 1300 3.00 are course credit exclusions, as are SC/MATH 1014 3.00 and SC/MATH 1310 3.00);
- computer science: three credits from SC/CSE 1520 3.0, SC/CSE 1530 3.00, SC/CSE 1540 3.00 or SC/CSE 1020 3.00;
- foundational science: six credits from: SC/BIOL 1000 3.00, SC/BIOL 1001 3.00 (or SC/BIOL 1010 6.00), SC/CHEM 1000 3.00, SC/CHEM 1001 3.00, SC/PHYS 1010 6.00 or SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00.

B. Major requirements:

- The program core as specified above (12 credits);
- an additional 30 credits from the approved science and technology studies major courses , including at least 18 credits at the 3000 or higher level, of which at least 12 are at the 4000 level, for a total of 42 credits in science and technology studies;
- at least 18 science credits at the 2000 level or higher level non-science and technology studies courses; Note: would be met if the second major or the minor is in another science discipline;
- the course requirements for the second major or the minor.

C. Science breadth: satisfied by the above requirements.

D. Upper level requirements: a minimum of 42 credits at the 3000 level or above.

E. Additional credits, as required, for an overall total of 120 credits.

F. Standing requirements: To graduate in an Honours program requires successful completion of all Faculty requirements and departmental required courses and a minimum cumulative credit-weighted grade point average of 5.00 over all courses completed, subject to the following exception. In addition, a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all biology courses completed is required to graduate in the Honours Double Major program where biology is the other major.

Honours Minor

- The program core as specified above (12 credits);
- an additional 18 credits from the approved science and technology studies major courses (for a total of 30 credits in science and technology studies).

Section 3: Previous Requirements for BSc Degrees in STS

Note: these regulations apply to students who declared a major or minor in STS before the summer of 2013. New majors and minors should see the regulations in Section 2 (page 17).

There are **TWO** required courses for all BSc streams:

SC/STS 2411 6.00 Introduction to Science and Technology Studies and
SC/STS 4501 6.00 - Seminar in Science and Technology Studies

General Education

All students in the Faculty of Science must fulfill the General Education requirements. Please speak with an Academic Advisor in Science Academic Services or see http://science.yorku.ca/Calendar/General-Education for more information.

Science Core

In addition, all BSc students must take the Science Core:

(i) All BSc and BSc (Hons) degree candidates must comply with General Regulation 4 (Science Section IV) by completing the following:

- 12 credits from SC/BIOL1010 6.00; or SC/CHEM1000 3.00 and SC/CHEM1001 3.00; or SC/EATS1010 3.00 and SC/EATS1011 3.00; or SC/PHYS1010 6.00 or SC/PHYS1410 6.00.
- 3 credits from SC/CSE1520 3.00 or SC/CSE1530 3.00 or SC/CSE1540 3.00
- 6 credits from SC/MATH1505 6.00, SC/MATH1013 3.00, SC/MATH1014 3.00, SC/MATH1025 3.00.
- 3 credits from SC/BC1800 3.00, SC/BIOL1010 6.00, SC/CHEM1000 3.00, SC/CHEM1001 3.00, SC/EATS1010 3.00, SC/EATS1011 3.00, SC/PHYS1010 6.00, SC/PHYS1410 6.00, HH/PSYC1010 6.00.
- 12 General Education credits (See 'General Education Requirements' in Science Section IV. STS courses do *not* count towards General Education requirements).
- All degree candidates must comply with General Regulation 5 or 6 (Science Section IV).

(ii) All BSc and BSc (Hons) STS degree candidates must complete at least 18 science credits at the 2000 level or higher outside of STS.

Bachelor Program (90 credits)

Students will take at least 30 credits in Science and Technology Studies, including:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- 18 additional credits chosen from the Science and Technology Studies list of courses.
- The Faculty of Science and Engineering General Education and 1000 level science requirements as in (i) above.
- At least 18 science credits at the 2000 level or above outside of STS as in (ii) above.
- Additional elective credits as required for a total of at least 90 credits, including at least 66 credits from Science courses and, of these, at least 18 credits at the 3000 level or higher.

Honours Programs

To declare Honours requires successful completion of at least 24 credits and a minimum cumulative credit-weighted grade point average of 5.0 over *all* courses completed, subject to the exceptions in the notes below.

- To proceed in each year of an Honours program requires a minimum cumulative credit-weighted grade point average of 5.0 over all courses completed, subject to the exceptions in the notes below.
- To graduate in an Honours program requires successful completion of all Faculty requirements and departmental required courses and a minimum cumulative credit-weighted grade point average of 5.0 over all courses completed, subject to the exceptions in the notes below.

Note 1: In addition, a minimum cumulative credit-weighted grade point average of 6.0 over all Science (SC) courses completed is required to declare, proceed and graduate in (i) the Honours Double Major program where Biology is the other major, and (ii) the Honours Major/Minor program where Biology is the major. (The minimum 6.0 Science grade point average is not required where Biology is the minor.)

Note 2: Students admitted to York University prior to 1999-2000 may declare Honours and proceed and graduate in Honours programs according to the academic standards of the year in which they were admitted.

Specialized Honours Program (120 credits)

Each student will take the required STS courses:

- AP/HUMA/SOSC SC/STS 2411 6.00;
- AP/HUMA/SOSC SC/STS 4501 6.00;
- The Faculty of Science and Engineering General Education and 1000 level science requirements as in (i) above.
- An additional 42 credits from the approved STS courses (for a total of 54 STS credits)
- At least 18 science credits at the 2000 level or above outside of STS as in (ii) above.

- Additional elective credits as required for a total of at least 120 credits, including at least 90 credits Science and Engineering courses and of these, at least 42 credits at the 3000 level or higher.

Honours Double Major Program (120 credits)

Possible subject combinations are listed under 'Undergraduate Degree Programs' in Science Section 1.

Students should consult a program advisor to plan their studies in order to meet the program requirements of both majors and their prerequisites. Such programs are highly demanding and should be carefully considered by any student wishing to undertake this course of study.

- The program core as specified in (i) above.
- The Faculty of Science and Engineering general education and 1000 level science requirements as in (ii) above.
- an additional 30 credits from the approved STS courses (for a total of 42 STS credits)
- At least 18 science credits at the 2000 level or above outside of STS as in (ii) above.
- The course requirements for the second major.
- Additional elective credits as required for a total of at least 120 credits, including at least 90 credits from Science courses and of these, at least 42 credits at the 3000 level or higher.

Note: At least 66 credits in science courses if the second major is in LA&PS.

Honours Major-Minor Program

- The program core as specified in (i) above
- The Faculty of Science and Engineering general education and 1000 level science requirements as in (ii) above.
- An additional 36 credits from the approved STS courses (for a total of 48 STS credits)
- At least 18 science credits at the 2000 level or above outside of STS as in (ii) above.
- The course requirements for the minor.
- Additional elective credits as required for a total of at least 120 credits, including at least 90 credits from Science courses and of these, at least 42 credits at the 3000 level or higher.

Honours Minor Program

- The program core as specified in (i) above.
- An additional 18 credits from the approved STS courses (for a total of 30 STS credits).

University Resources

Science Academic Services

Advising for students enrolled in the Faculty of Science

Loc: 352 Lumbers Building
Tel: (416) 736-5790 (New Student Appointment Booking Line)
(416) 736-5085 (General Enquiries)
Hours: 10:00 a.m. to 4:00 p.m. Monday to Friday.
Email: sciadvis@yorku.ca (New student enquiries & Alternate Enrolment Advising)
sciquest@yorku.ca (Current Student Enquiries)
Website: http://www.science.yorku.ca/Offices-Services/Science-Academic-Services-SAS

Science Academic Service (SAS) is the undergraduate advising office for all Science students. This office is responsible for advising all new science students regarding course selection in their first year of study. SAS also answers any enquiries regarding admission to the faculty, program requirements, university regulations and petition procedures. Information is also available on applying to professional programs (e.g. medicine, dentistry, etc).

Centre for Student Success Academic Advising Office

Advising for students enrolled in the Faculty of Liberal Arts & Professional Studies

Loc: 103 Central Square
Tel: 416-736-5222
Fax: 416-736-5294
Hours: 8:30am-6:30pm (Monday, Tuesday, Wednesday & Thursday)
8:30am - 4:00pm Friday
To Book Appointment: http://www.yorku.ca/laps/students/continuing_students.html
Email: laps@yorku.ca

The Centre for Student Success provides ongoing advising and programming to support student success. The goal of the centre is to be a one-stop shop for advice, permissions and programs that meet student needs, delivering integrated services in collaboration with units across the university. The academic advisors help students to:

- select majors and courses;
- change majors or degrees;
- transfer to LA&PS;
- ascertain that students meet the Faculty's academic regulations;
- plan for students' academic future both before and after graduation.

Writing Centres

Bethune College Writing Centre (for students affiliated with Bethune College)
Loc: 206 Bethune College
Tel: 416-736-5164 ext 22035
http://bethune.yorku.ca/writing

The Bethune Writing Centre, located in BC 206, offers FREE one-on-one or small group instruction in academic writing to undergraduate students affiliated with Bethune College. STS students are by default enrolled in Bethune College. Students who did not declare STS as their intended major upon first enrolling at York may have been assigned to a different college. Students may verify their college affiliation and/or change it via the Current Students website.

The Writing Department
Loc: South 311 Ross Building
Tel: 416-736-5134
http://www.yorku.ca/laps/writ/

The Writing Department offers individual tutoring for LA&PS students in all aspects of the essay writing process, as well as short, non-credit workshop-style courses in a variety of writing skills, techniques and problem-solving strategies.

Counselling and Disability Services

Loc: Bennett Centre for Student Services, N110
Tel: 416-736-5297
http://www.yorku.ca/cds/

The Centre offers the following Programs and Services:

- Personal Counselling
- Mental Health Disability
- Learning Disability Services
- Physical, Sensory & Medical Disability Services
- Learning Skills

Effective July 2009, the Counselling & Development Centre, Atkinson Counselling & Supervision Centre, the Office for Persons with Disabilities and Glendon Counselling & Career Centre were aligned under a new structure called: Counselling & Disability Services.

The name change reflects the work that has been done with students and staff to gather all services under one virtual "roof." The move will benefit students in several ways: coordination between services; closer "fit" between services and students; enhanced access; and shared resources.

Program names have also been changed to reflect the reorganization:

- Personal Counselling Services (formerly Personal Counselling Program)
- Learning Skills Services (formerly Learning Skills Program)
- Disability Services
- Learning Disability Services (formerly Learning Disabilities Program)
- Mental Health Disability Services (formerly Psychiatric Dis/Abilities Program)
- Physical, Sensory & Medical Disability Services (formerly the Office for Persons with Disabilities)

Alternate Exam and Test Procedures

Offered through Physical, Sensory & Medical Disability Services (PSMDS)

Loc: Student Client Services, Bennett Centre for Student Services (Main Floor)
Tel: 416-872-9675
TTY: 416-736-5660
Fax: 416-650-8129
Email: altexams@yorku.ca
http://www.yorku.ca/altexams/

York's Counselling & Disability Services and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus.

York International Exchange Programs – Study Abroad

Loc: 200 York Lanes
Tel: 416-736-5177
http://international.yorku.ca/

The York Exchange Program allows students at York to earn part of their degree credits at a postsecondary institution in another country.

Career Centre

Loc: McLaughlin College, Suite 202
Tel: 416-736-5351
http://www.yorku.ca/careers/students.htm

Provides assistance with job searching, career options, further education, and building skills and experience.

Office of the Ombudsperson and Centre for Human Rights and Equity

Loc: 1050 Kaneff Tower
http://www.yorku.ca/ombuds/

This office offers confidential counselling and assistance to any member of the university who finds her or himself in a situation involving harassment or abuse of any kind.

ACMAPS - Atkinson Centre for Mature and Part-time Students

Loc: 111 Central Square
Tel: 416-736-5770
http://www.yorku.ca/acmaps/

Open to students of all Faculties, the Atkinson Centre for Mature & Part-time Students (ACMAPS) provides information, advice and support to help mature and part-time students make the most of their York experience. ACMAPS is a place where students, staff, and professors can meet to share common interests and experiences.