

DEPARTMENT
OF
**SCIENCE AND TECHNOLOGY
STUDIES**

FACULTY OF SCIENCE
York University

Undergraduate
Mini-Calendar
2018-19

Message from the Department Chair

Welcome to Science & Technology Studies at York University!

I'm an historian, so I often rummage around in archives. Some very old York academic calendars contain a couple of STS gems. York's first "Science, Technology & Society" course appeared in 1969. In 1977, "Science & Technology Studies" became a Bachelor of Arts stream. York's first Department of Science Studies made its debut in 1989. Its courses promised students not just films (celluloid!) and sparkling classroom discussion, but learning tours of hospitals, diagnostic centres, and government science agencies.

The world of science & technology has certainly changed a lot since then. Our computing power and big data manipulations were hardly imaginable in the late 1960s. We now talk less of mapping genomes, and more about editing them. Voyager 2 was launched in 1977, finally leaving our solar system in 2013. The spread of HIV/AIDS in the early 1980s killed millions, horrified the world, and its political struggles continue to challenge biomedical and social conventions right up to our current era.

The list could go on, and of course it would include changes to the Department of STS, and to York University itself. Launching our graduate program in STS in 2009 is perhaps our single greatest accomplishment. But a few things haven't changed. York's STS scholars and educators are still passionate about understanding the social, cultural, economic, and political forces that shape scientific knowledge and build technological power. We still want to know how science and technology, in turn, shape society. And, in some ways, we still do this the way we (well, not me personally!) did back in 1969. Our research and publications approach science and technology from a multitude of disciplinary perspectives. We bring the natural and the social sciences together under a single Department (which includes the Division of Natural Science). We try to get students out of the classroom and into the workshops, labs, and hospitals where they can observe science and technology in the making. And we offer a flexible curriculum with a small class size, where students can get down to the hard work of crafting their own responses to the many challenges and conundrums posed by STS.

If you're interested in science and technology, enjoy some technical details, but are excited about developing a bigger framework to give those details meaning, STS is for you. Look over our courses. Follow our twitter feed STS@YorkU. Contact me with your questions.

I look forward to seeing you in our courses!

Kenton Kroker

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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 our Mini-Calendar is accurate but there may be discrepancies. If you find any errors, please let us know. The York Undergraduate Academic Calendar is the official, final word. For the latest information, students are encouraged to visit our website at www.sts.info.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 Departmental Office in 218 Bethune for advising.

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. Our teaching faculty draw upon the concepts and methods of the humanities and social sciences to deliver courses that examine the intellectual, technical, material, socio-political, institutional, and cultural forces that help shape science and technology.

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 in which individual relationships, both with professors and with other students, can flourish. Undergraduate students sometimes have the opportunity to work on research projects with faculty.

STS graduates are well-equipped for employment in fields such as science journalism, museum curation, science teaching, and science policy. Many of our students have gone on to studies in law, medicine, and education, as well as graduate studies in STS

and other related disciplines.

Many of our faculty enjoy international reputations for the high quality of their STS research, which encompasses a wide range of topics and approaches. Others are award-winning teachers, who focus on crafting innovative and engaging pedagogical strategies. (Some do both!) All of us are actively engaged with the various professional societies that represent STS, including the History of Science Society, the Society for the History of Technology, the Society for the Social Studies of Science, the Canadian Society for History & Philosophy of Science, and the Canadian Society for the History of Medicine.

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](#). We encourage you to consider booking an advising meeting with the Chair (preferably early in the Fall term) to review your progress, current status, and future plans.

STS Seminar Series

Now in its 25th year, the STS Research Seminar is one of the longest-operating public colloquia at York. Held on Tuesdays from 12:30-2:00, the series welcomes local and international scholars to the Keele Campus to speak on a wide variety of topics in STS.

Undergraduate students are very welcome to attend these talks. It is your chance to see and hear internationally renowned scholars from around the world – do not miss out! Looks for posters around campus and check our website for information on upcoming events like these.

STS Graduate Studies

We strongly encourage students to consider working towards an honours degree in STS. If you have already made this decision, you may want to investigate applying to our MA program in STS. For more information on the graduate program, contact the Graduate Program Director or the Chair of STS.

Website: <http://sts.gradstudies.yorku.ca/>

STS Student Association

The Science and Technology Students Association is the official York University student club representing the interests of all STS undergraduate major and minor students. Our mission is to raise the profile of the STS Department on campus and in the community, as well as to encourage community-building among STS students. We organize our own events showcasing the kinds of things we study in STS, as well as participating in department events, such as the STS Seminar Series, and STS-related conferences. We are always looking for new ideas, so come and join us as we work to make STS even better. Contact stsstudentassociation@gmail.com for more information.

STS Course Director Contact Information

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Courses in Science and Technology Studies

This is the list of STS courses at time of printing. All these courses count as STS courses in one of our degree streams. For official 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>

(Tentative) Fall/Winter 2018-19 Course Timetable

Term	Faculty	Subject	Course #	Credit Weight	Course Title	Day	Hour	Duration	Course Director
Y	SC	STS	4501	6.0	Seminar in Science and Technology Studies	R	11:30	180	Jill Lazenby
Y/F/W	SC	STS	4700	3.0/6.0	Independent Research in Science and Technology Studies				See Course Description
Y	SC	STS	4710	6.0	Honours Thesis in Science and Technology Studies				See Course Description
F	SC	STS	2110	3.0	Truth, Theory and Superstition	T R	11:30	90	Jagdish Hattiangadi
F	SC	STS	2411	3.0	Introduction to Science and Technology Studies	W, M	8:30	60, 120	James Elwick
F	SC	STS	3600	3.0	Technological Failure	R	11:30	180	Conor Douglas
F	SC	STS	3726	3.0	Technology, Experts and Society	W	16:00	180	TBA
F	SC	STS	3730	3.0	Science, Technology and Modern Warfare	T	16:00	180	Dov Lungu
F	SC	STS	4785	3.0	Science, Health and Food	M	11:30	180	TBA
W	SC	STS	2010	3.0	History of Modern Science	T R	10:00	90	Daniela Monaldi
W	SC	STS	2210	3.0	Technology in the Modern World	W	16:00	180	Dov Lungu
W	SC	STS	3170	3.0	Philosophy of Science	M	14:30	180	Jagdish Hattiangadi
W	SC	STS	3500	3.0	The Global Information Society	W	11:30	180	Vera Pavri
W	SC	STS	3775	3.0	Physics in the 20th Century	M	11:30	180	Daniela Monaldi
W	SC	STS	3780	3.0	Biomedical Science in Social & Historical Context	W	11:30	180	Conor Douglas
W	SC	STS	3790	3.0	Science and Technology Issues in Global Development	F	11:30	180	Conor Douglas

Course Offerings:

FALL/WINTER 2018-19 (TERM Y)

**indicates no prerequisites for this course*

SC/STS 4501 6.00 Seminar in Science & Technology Studies (Lazenby)

The 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. Topics may include an examination of the nature and function of experiment, ethics, expertise, evidence, gender, instruments, language, policy, popularization, technological systems, risk, and visualization in science and technology.

Prerequisites: Completion of SC/STS 2411 3.00. Cross-listed to: AP/SOSC 4501 6.00

SC/STS 4700 3.00/6.00 Independent Research in Science and Technology Studies

This course offers the opportunity for students to design and pursue a course of individualized study in consultation with the Department Chair and proposed course director. Note: Students must be accepted by a faculty supervisor before registering for SC/STS 4700 3.00/6.00 and must have permission from the Department Chair.

Prerequisites: 78 credits and permission of the Department Chair.

Course credit exclusions: SC/STS 4700 3.00, SC/STS 4710 6.00.

SC/STS 4710 6.00 Honours Thesis in Science and Technology Studies

A course for advanced students in STS who wish to pursue an in-depth and original program of research in a topic chosen in consultation with a thesis committee, the supervisor of which must be an STS faculty member. The course provides students with the opportunity to create an individualized program of research outside of the traditional lecture- or seminar-based class. Students will learn how to carefully frame a research question in STS, how to exploit a variety of resources and methods to answer the question, how to compose a thesis on the topic, and how to effectively address feedback from the committee on the student's research. Note: Open only to students enrolled in an Honours BA or BSc in Science and Technology Studies

Prerequisite: 78 credits and permission of the Department chair.

Course credit exclusion: SC/STS 4700 3.00, SC/STS 4700 6.00.

FALL 2018 (TERM F)

***SC/STS 2110 3.00 Truth, Theory and Superstition (Hattiangadi)**

There are diverse views on how to improve one's understanding of research, even in the case of established natural or social sciences. This course investigates theories of scientific methodology that illustrate the conflict between truth and superstition.

Cross-listed to: AP/PHIL 2110 3.00.

PRIOR TO FALL 2009: Course credit exclusions: AK/AS/PHIL 2110 3.00.

***SC/STS 2411 3.00 Introduction to Science and Technology Studies (Elwick)**

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: AP/HUMA 2411 6.00

***SC/STS 3600 3.00 Technological Failure (Douglas)**

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 exclusion: SC/STS 3600 6.00

***SC/STS 3726 3.00 Technology, Experts and Society (TBA)**

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.

Cross-listed to: AP/SOSC 3726 3.00.

***SC/STS 3730 3.00 Science, Technology and Modern Warfare (Lungu)**

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 4785 3.00 Science, Health and Food (TBA)

An examination of 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.

Prerequisite: Completion of 60 credits.

WINTER 2019 (TERM W)

***SC/STS 2010 3.00 History of Modern Science (Monaldi)**

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.

Cross-listed to: AP/HIST 2810 3.00.

***SC/STS 2210 3.00 Technology in the Modern World (Lungu)**

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.

Cross-listed to: AP/HUMA 2210 3.00, AP/HIST 2822 3.00.

PRIOR TO WINTER 2014: course credit exclusions: SC/STS 3700 6.00, AP/HUMA 3700 6.00

SC/STS 3170 3.00 Philosophy of Science (Hattiangadi)

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.

Prerequisite: AP/PHIL 2110 3.00 or at least six credits in philosophy. Course credit exclusions: None.

PRIOR TO FALL 2009: Prerequisites: At least six credits in philosophy. Course credit exclusions: AK/PHIL 3175 3.00, AS/PHIL 3170 3.00

***SC/STS 3500 3.00 The Global Information Society (Pavri)**

This course explores the role of information and communication technologies (ICTs) in today's global society. We will examine three critical questions about our current information age, which include:

- a) Are ICTs the key to solving our world's current social problems?
- b) Are humans becoming too dependent on computer automation to perform labor and leisure tasks?
- c) Should we expect any kind of individual privacy with the increased use of ICTs in today's world?

Cross-listed to: AP/SOSC 3500 3.00.

***SC/STS 3775 3.00 Physics in the 20th Century (Monaldi)**

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 (Douglas)**

An examination of the changing nature of biomedical research, concepts, and practices since 1800. Topics for sociohistorical analysis include: public health, physiology, microbiology, risk factors, diagnostic technologies, drug development and policy, immunology, and genetic medicine.

Course credit exclusion: AP/SOSC 3780 6.00, SC/STS 3780 6.00.

***SC/STS 3790 3.00 Science and Technology Issues in Global Development (Douglas)**

This course examines a multiplicity of historical and cultural factors influencing and shaping scientific norms and technological practices in global development. Moreover, this course seeks to address questions on how global development goals are affecting

the utilization of planetary resources and the advancement of technological systems of production. One of the predominant objectives of this course is to elucidate the entanglements between science, technology and global development, and unpack further what global development means in the context of international cooperation and international security.

Other STS Courses (not offered in 2018/19)

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. Prerequisites: Completion of 24 credits.

***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.

***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 credit exclusion: SC/STS 3725 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 3750 6.00 Genetics, Evolution and Society**

This course will adopt a variety of STS perspectives to examine the interplay between the life and social sciences and biotechnology from the mid-19th century to the present. Course credit exclusion: AK/STS 3750 6.00.

***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, AP/HIST 2250 3.00, AP/HUMA 3760 6.00, AK/STS 3760 6.00 and SC/STS 3760 6.00.

***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 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.

Prerequisite: At least nine credits in philosophy including one of AP/PHIL 2110 3.00, AP/PHIL 3170 3.00, AP/PHIL 3270 3.00, or AP/PHIL 3280 3.00 or permission of the course director.

Course credit exclusion: AS/PHIL 4110 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 6.00

Crosslisted to: AP/HUMA 4230 3.00

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.

Prerequisites: Completion of sixty credits of which three credits are drawn from 3000 level STS or History courses; or permission of the instructor.

Cross-listed to: AP/HIST 4088 3.00

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 STS, see Section 1, below
- If you wish to pursue a BSc major or minor in STS, see Section 2, below
- *If you declared a major or minor in STS before the summer of 2013, please make an appointment with the Chair to discuss your program requirements.*

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 Science must fulfill the General Education requirements listed for BA degrees. Please speak with an Academic Advisor or see <http://science.yorku.ca/current-students/my-degree/program-requirements/general-education/> for more information

Bachelor Program (90 credits)

Students will take at least 30 credits in STS, including:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS 4501 6.00;
- 18 additional credits chosen from the STS list of courses.

Honours BA Program (120 credits)

Students must complete at least 48 credits in STS, including:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS 4501 6.00;
- 36 additional credits chosen from the STS list of courses, including at least six credits at the 4000 level.

Honours (Double Major) Program (120 credits)

STS may be pursued jointly with any other Honours Bachelor's degree program in the Faculty of Liberal Arts & Professional Studies, Faculty of Environmental Studies, Faculty of Health, Lassonde School of Engineering or School of the Arts, Media, Performance & Design.

Students must complete at least 42 credits in STS, including:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS4501 6.00;

- 30 additional credits chosen from the STS list of courses, including at least six credits at the 4000 level.

Honours (Double Major) Interdisciplinary Programs (120 credits)

STS 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 STS and at least 36 credits in the interdisciplinary program. Courses taken to meet the STS 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 STS and six credits in the interdisciplinary program. For further details about the requirements, see the listings for specific Honours (Double Major) Interdisciplinary BA Programs.

The 36 credits in STS must include the following:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS 4501 6.00;
- 24 additional credits chosen from the STS list of courses, including at least six credits at the 4000 level.

Honours (Major/Minor) Program (120 credits)

STS may be pursued jointly with any Honours Minor Bachelor's degree program in the Faculty of Liberal Arts & Professional Studies, Faculty of Environmental Studies, Faculty of Health, Lassonde School of Engineering or School of the Arts, Media, Performance & Design.

Students must complete at least 42 credits in STS, including:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS 4501 6.00;
- 30 additional credits chosen from the STS 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, Faculty of Environmental Studies, Faculty of Health, Lassonde School of Engineering or School of the Arts, Media, Performance & Design.

Students must complete at least 30 credits in STS, including:

- SC/STS 2010 3.00 or SC/STS 2210 3.00;
- SC/STS 2411 3.00;
- SC/STS 4501 6.00;
- 18 additional credits chosen from the STS list of courses.

Section 2: Requirements for BSc Degrees in STS

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 (90 credits)

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 LE/EECS 1520 3.00, LE/EECS 1530 3.00, LE/EECS 1540 3.00 or LE/EECS 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), p. 15;
- an additional 18 credits from the approved STS major courses including at least 12 major credits at the 3000 level or above, for a total of a minimum of 30 credits from STS major courses,
- at least 18 science credits at the 2000 level or higher non-STS 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 (120 credits)

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 LE/EECS 1520 3.00, LE/EECS 1530 3.00, LE/EECS 1540 3.00 or LE/EECS 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), p. 15;
- additional 42 credits from the approved STS major courses (for a total of 54 STS 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 STS 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 (C+) over all courses completed.

Honours Double Major and Honours Major/Minor Programs (120 credits)

An Honours Major in STS 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 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 LE/EECS 1520 3.00, LE/EECS 1530 3.00, LE/EECS 1540 3.00 or LE/EECS 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), p. 15;
- an additional 30 credits from the approved STS 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 STS;
- at least 18 science credits at the 2000 level or higher level non-STS 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 (C+) 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 (120 Credits)

- The program core as specified above (12 credits), p. 15;
- an additional 18 credits from the approved STS major courses (for a total of 30 credits in STS).

Section 3: Previous Requirements for BSc Degrees in STS

Students who declared a major or minor in STS before the Summer of 2013 should consult the *STS Undergraduate Mini-Calendar 2016-17* (available at sts.info.yorku.ca) for details regarding the regulations governing their STS degree

University Resources

Science Academic Services (SAS)

Loc: 352 Lumbers Building

Skype: york.science

Hours: 10:00 a.m. to 4:00 p.m. Monday to Friday.

Email: sciquest@yorku.ca

Website: <http://science.yorku.ca/current-students/academic-advising/>

All general questions, new student advising, program changes, general education requirements, degree checklists and unofficial audits, academic decisions and their implications, petitioning, how to your calculate GPA, continuing your studies, change of program advising.

Bethune Writing Centre

Bethune College Writing Centre (for students affiliated with Bethune College)

Loc: 207 Bethune College

Tel: 416-736-5164

Email: bethune@yorku.ca

Website: <http://bethune.yorku.ca/writing/>

The Bethune Writing Centre, located in BC 207, 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

Email: lapswrit@yorku.ca

Website: <http://writing.laps.yorku.ca/>

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.

Student Counselling & Development (SCD)

Loc: Bennett Centre for Student Services, N110

Tel: 416-736-5297

Hours: 9am to 4:30pm - Monday, Wednesday, Thursday, Friday*

9am to 7pm - Tuesday

*Throughout June, July and August, SCD offices are closed noon-1pm each day and they close at 3:30pm on Fridays.

Website: <http://counselling.students.yorku.ca/>

Personal Counselling Services (PCS) aims to help York students realize, develop and fulfill their personal potential in order to maximally benefit from their university experience and manage the

challenges of university life. Students come to PCS because of a wide range of concerns including, but not limited to: depression, anxiety, abuse, stress, self-esteem, relationship issues, eating and body image as well as issues related to sexuality.

Student Accessibility Services (SAS)

Tel: 416-736-5755

Hours: 9am to 4:30pm - Monday, Wednesday, Thursday, Friday*

9am to 7pm – Tuesday

*Throughout June, July and August, SAS offices are closed from noon-1pm each day and they close at 3:30pm on Fridays.

Website: <http://accessibility.students.yorku.ca/>

- Learning Disabilities
- Attention Disorders
- Autism Spectrum Disorder (ASD)
- Mental Health Disabilities
- Physical, Sensory & Medical Disabilities

Alternate Exam/Test Scheduling

Loc: Registrarial Services, Main Floor, Bennett Centre for Student Services

Tel: 416-872-9675

Fax: 416-650-8129

Email: altexams@yorku.ca

Website: <http://altexams.students.yorku.ca/>

York's Student Counselling & Development 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

E-mail: yiinfo@yorku.ca

Website: <http://yorkinternational.yorku.ca/contact-us/>

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

Email: career@yorku.ca

Website: <http://careers.yorku.ca/online-system/>

The Career Centre provides assistance with job searching, career options, further education, and building skills and experience.

Ombudsperson

Loc: 1050 Kaneff Tower

Email: ombuds@yorku.ca

Tel: 416-736-2100 ext. 22937

Website: <http://ombuds.info.yorku.ca/>

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.

Centre for Human Rights, Equity, and Inclusion

Loc: 2070 Victor Phillip Dahdaleh Building (formerly TEL Bldg)

Tel: 416-736-5682

Email: rights@yorku.ca

Website: <http://rights.info.yorku.ca/contact-us/>

REI provides free services to current York students, faculty and staff, including information, guidance and consultation on human rights best practices, and communication on our services and progress to the University community.

ACMAPS - Atkinson Centre for Mature and Part-time Students

Loc: 111 Central Square

Tel: 416-736-5770

Email: acmaps@yorku.ca

Website: <http://acmaps.info.yorku.ca/>

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. ACPAPS is a place where students, staff, and professors can meet to share common interests and experiences.