Revision of Science Technology Society Concentration:

**Rationale:**
The key course in this concentration was (is) SCIN 210, Science Technology and Society. This course is also required of the STS stand-alone minor; and was in the TAS School Core (SCP category) until Fall 2017, when the School Core was removed. Given the enrollments in the INSS major and STS minor, there are insufficient students to merit offering this course (which has been taught by a long-term adjunct).

Given that the concentration would need to be revised to remove SCIN 210 as a requirement (and the glue that holds the concentration together), it makes sense to re-think the STS concentration. It is the only concentration that is taught at least partly within TAS (the other concentrations are taught outside TAS in their entirety); but, it doesn’t have a science focus. (The two previous science concentrations were ended a few years ago, due to the issue of prereqs/sequencing making them impractical). Given the state of scientific literacy in the broader context, it would be desirable to have a science-focused concentration. Therefore, we are proposing a revision of the STS concentration, to “Science and Society”, with a more science-based focus. The concentration will draw from existing courses. A complementary proposal is being submitted to revise the STS minor in parallel with this.

**The revisions:**

**Revised title of concentration:** Science and Society

**Revised curriculum**

- *Courses that are underlined are already in the STS (or Public Policy) concentration.*
- *Courses that are asterisked are in the Gen Ed program.*
- *For those courses that have prerequisites, the prerequisites are met within the major (foundational sciences).*
- *Courses that have # will have prerequisites updated to include SCIN 295 (required course in major / also in Gen Ed program).*

Five courses required, one from each bullet-pointed category.

- GEOL 210 Natural Hazards** or GEOL 333 Environmental Geology
- ENSC 305 Climate Change Science# or ENST 240 Climate Change and Society*
- BIOL 346 Food Science or BIOL 347 Medicinal Plants or SCIN 310 AIDS: Biological, Medical and Social Perspectives*
• ENSC 230 Sustainable Natural Resources or ENST 223 Energy and Society or GEOG 210 Water Resources* or GEOG 304 Forest Resources
• ENST 207 Public Policy or ENST 317 Environmental Policy and Regulation or ENST 326 Environmental Law

These five categories (and their courses) were selected for several reasons.
1. To represent the two broad categories of natural sciences – physical and biological;
2. To include contributions from across the natural sciences in the School of Theoretical and Applied Sciences;
3. To include courses that would be readily-accessible to students with diverse scientific backgrounds (e.g. the foundational sequence in the major); prerequisites are kept to a minimum, and many of these courses are found within the General Education program;
4. To select courses that would be likely to be offered regularly and frequently.

In detail, the rationale for each category is:
• Earth Science: the interplay of the (physical/geological) planet and humans. The course options in this category look at how humans impact geological processes – both solid-earth [e.g., volcanoes, earthquakes] and surface [e.g., flooding, landslides] – and how geological processes impact humans.
• Climate change: perhaps the most important issue facing the planet in the 21st century is anthropogenic climate change. The course options here have a foundation of climate change science, and proceed to explore the impacts (to individuals, societies, nations, as well as natural processes and ecosystems) of global heating.
• Biological / life sciences: the courses in this category explore aspects of these sciences that have a direct bearing on individuals and society – food and health are vital.
• Natural resources: the physical sciences are represented heavily by the earth and environmental disciplines, because chemistry and (engineering) physics courses are less accessible to students outside those majors. This category specifically looks at natural resources. Many of the courses here are housed within Environmental Studies even though they were originally developed within TAS; in their current iteration they are both science and social science courses. All of the courses in this category looks at natural resources (all-encompassing, or particular types) from both the science and social aspects.
• Social science; the final category is comprised of courses that explore the institutions that define how society works (e.g., policy, law); informed by science (with an environmental focus).
**Catalog Layout**

Science and Society

**Select one course from each category.**

**Category 1: Natural Processes**
- GEOL 210 Natural Hazards
- GEOL 333 Environmental Geology

**Category 2: Climate Change**
- ENSC 305 Climate Change Science
- ENST 240 Climate Change and Society

**Category 3: Biological sciences**
- BIOL 346 Food Science
- BIOL 347 Medicinal Plants
- SCIN 310 AIDS: Biological, Medical and Social Perspectives

**Category 4: Natural resources**
- ENSC 230 Sustainable Natural Resources
- ENST 223 Energy and Society
- GEOG 210 Water Resources
- GEOG 304 Forest Resources

**Category 5: Social science**
- ENST 207 Public Policy
- ENST 317 Environmental Policy and Regulation
- ENST 326 Environmental Law