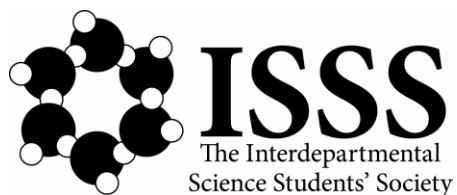


ISSS SUBMISSION
TO THE FACULTY OF SCIENCE
ACADEMIC PLAN

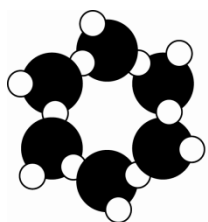


The Interdepartmental Science Students' Society is a new Faculty Association for undergraduates in Science. We are thankful for the opportunity to provide input into the Faculty of Science's response to the University of Alberta Academic Plan.

This document was created over three weeks, and every attempt was made to gather feedback from Science undergraduates. Our Vice President Academic worked to compile feedback and build suggestions grounded in the perspectives of students. However, it is important to note that, because of our timeline, the ideas contained within this document are not fully representative of the large and diverse Science student body.

We recognize that the current financial climate defines the possibilities for growth within the faculty. Many of the suggestions provided require no more than a change in mindset. Yet it is also our hope that as a forward-looking document, the Faculty of Science response to the Academic Plan will also provide vision for years to come.

Thank you for the opportunity to be a part of the planning process. We look forward to working and growing together in years to come.





nurture student **engagement**

The vast nature of the Faculty of Science can be daunting to many undergraduate students. With persistence and spirit, young minds are demanding to connect, engage, and lead during their lifespan as a Science student. We believe active participation in the Science community should be nurtured, increasing retention, improving resilience, and building connected future alumni.

- Promote positive interaction by encouraging mutual respect and addressing language barriers between both students and instructors.
- Provide spaces in science buildings, particularly CCIS, for students to connect and study.
- Expand Teaching Assistant support to students in the form of group help sessions to complement learning in large classes.
- Communicate regularly with students in ways that are personal and student-focused.
- Commit to supporting Science student groups through regular contact, consultation, and grants to the Council of Science Student Associations.



drive **flexible** program planning

In a connected world, information and ideas change quickly. Science students can see opportunities for new course offerings to fit our dynamically evolving world. Contrastingly, a deep-rooted concern is that advising and program structures lack the flexibility to adapt to new ideas and new futures for undergraduates.

- Rebuild an advising structure that is seamless, efficient, constructive, and compassionate.
- Foster new, exciting, and rewarding degree programs by allowing flexibility in programs of study, including allowing students multiple minors and recognizing minors in specialization programs.
- Examine barriers preventing students from taking courses they desire, including restrictions on inter-faculty courses and credit for studies abroad.
- Enable students to pursue multiple areas of interest by recognizing new areas of concentration, like a health science minor from existing courses.
- Offer an introductory course to expose first-year students to disciplines taught in the Faculty, skills needed to succeed in the scientific arena, and opportunities available following their degree.
- Offer an introductory, three-credit course covering a broad sample of material from each department to assist students in the general program to discover their strengths and interests.
- Offer an introductory science literacy course to cultivate an appreciation of scientific understanding to students outside the Faculty.



inspire **discovery**

Scientists love mysteries. We thrive when given the opportunity to build our knowledge from experience and evidence. It is only natural that laboratory and research experiences for Science students mimic the sense of discovery that motivates modern day scientists.

- Systematically review the efficacy of laboratory components in promoting scientific curiosity and evidence-based learning with consideration to their demands on students.
- Recognize and emphasize core competencies and attributes beginning in Year 1, including laboratory methods, communication skills, analytical thinking skills, and character development.
- Further connect and solidify learning through offering second-year for credit research courses in more departments.
- Create a centralized database of research experience opportunities, and provide resources and support to undergraduates exploring research.
- Maximize the efficiency of laboratory components by strengthening the relationship with lecture content and ensuring the quality of lab manuals.
- Increase the sphere of influence of Science 100, whether by increasing enrolment or continuing to translate pedagogical techniques to a wider audience.



value **transparency**

In the academic world, knowledge is power. Students are discoverers, but when information is restricted or hidden, it can be an obstacle to their success. Giving students access to the knowledge they need prevents time-consuming challenges for them and for the Faculty.

- Clearly communicate the exact methods used to assign final grades in each course.
- Provide meaningful formative assessment throughout a course, and provide feedback on final exams, to allow students to examine their performance and grow as learners.
- Make available data on class means and standard deviations on assessments in courses that base grades on students' relative performance.
- Review Faculty of Science policies and procedures from a student perspective.
- Provide access to course syllabi in advance of the start of classes.
- Maintain a centralized online archive of past course syllabi to inspire interest in diverse topics and allow students to make decisions that maximize value and promote success.
- Outline anticipated learning objectives and course outcomes on syllabi.



model a **supportive** environment

As the largest faculty on campus, there are many networks of support for both student and faculty members. These resources could be used more efficiently to support instructors, cultivate growth in the faculty, and ultimately transform the student experience.

- Connect with the Centre for Teaching and Learning to provide professional development opportunities for new instructors and graduate students as they move forward in their careers.
- Promote competence and efficiency among instructors when using online Learning Management Systems, including eClass and Moodle.
- Encourage greater use of online delivery methods which are more flexible for students, and result in reduced expenses within a course.
- Support instructors in exploring supplementary student-centred educational technologies, such as iClickers, or videocasts and podcasts. The latter allows students to succeed academically despite dynamic schedules, and reduces the instructors burden during office hours.
- Refocus teaching awards to promote future teaching and learning initiatives.
- Address the shifting trend towards leadership in undergraduate education through the creation of a second undergraduate-focused Associate Dean.

