What is iSci?
The Honours Integrated Science (iSci) program is an interdisciplinary, research-based science program that focuses on the development of self-directed learning skills in a supportive and collaborative environment. The iSci program is designed to allow students to learn science without the constraints of traditional discipline boundaries, course structures, or teaching methodologies.

Integrated learning of science discipline content
First year students take a single 24 unit course (ISCI 1A24) that integrates learning of the knowledge, concepts, and skills covered by traditional discipline courses in chemistry, physics, math, life sciences, earth science and psychology. In subsequent years students develop their understanding of the connections between key scientific concepts through directed project-based interdisciplinary research.

Topical thematic research projects
The majority of student learning takes place through interdisciplinary research projects that focus on topical and relevant scientific issues. In first year students complete four team research projects. In second and third year students complete several team research projects and an enrichment/individual research project on a topic of their choice.

Learning through self directed, hands-on exploration
Students in the iSci program learn through their own exploration of scientific issues in classroom, laboratory and field settings. Beginning first year students complete four team research projects. In second and third year students complete several team research projects and their understanding of the connections between key scientific concepts through directed project-based interdisciplinary research.

Pedagogical Innovations
Essential communication skills are developed through the integrated science literacy program. Students learn how to communicate the results of their research in a variety of formats including scientific papers, podcasts, and web materials intended for different types of audience. iSci is a learning community and also fosters the development of personal and leadership skills.

Flexible learning formats – modified block plan
In the second year of the iSci program research projects are scheduled in a modified ‘block plan’ format and run for periods of between 6 and 10 weeks. Topics include thermodynamics, ecology, biochemistry, neuroscience, and earth history. Second year students also select an ‘enrichment’ project based upon one of these five topics to further enhance their understanding of that topic, or a quantum mechanics project.

Integrated development of communication & leadership skills
"Being in iSci has given me the opportunity to learn and experience things that I would have never experienced otherwise."

"As a student that found most of high school a breeze, iSci has provided me with challenges at many different fronts that have helped me grow."

Words and phrases to describe iSci:
"challenging, stressful, sleep-depriving, demanding, overwhelming, headache-inducing; rewarding, thought-provoking, exhilarating, entertaining, unique, awesome."