



Science and technology have always played a crucial role in trying

to solve complex problems like food and water supply, environmental and energy crises, and many others. Now, in this unprecedented era where scientific research is increasingly reported and interpreted by bloggers and lobbyists, and where technology develops faster than our ability to absorb its implications, it is tremendously important that students develop the skills required to critically assess scientific and technological innovations and their impacts on society.

WOLFE CHAIR IN SCIENTIFIC AND TECHNOLOGICAL LITERACY

Waterloo's new Wolfe Chair in Scientific and Technological Literacy will be at the centre of a campus-wide initiative to develop students' fundamental understanding of scientific and technological innovation environments. Through courses and research activity, students from all disciplines will become better equipped to recognize and understand the human implications of scientific and technological change. The Wolfe Chair is an endowed teaching and research position based within the Department of Philosophy (Arts) and will work in collaboration with international partners to address one of the most pressing issues of 21st century progress. Awarded to the Faculty of Arts in 2009 after a nation-wide competition, the Wolfe Chair is made possible thanks to an anonymous donation of \$2,000,000; now the University seeks to raise matching funds from external supporters.

SCIENCE & TECHNOLOGY AT WATERLOO

- | | |
|------------------------|-------------------|
| Social Sciences (Arts) | Quantum Computing |
| Mathematics | Science |
| Engineering | Environment |
| Pharmacy | Applied Health |
| Optometry | |
| Architecture | |

CROSS-DISCIPLINARY RESEARCH HUBS

- Critical Media Studies Lab
- Centre for Theoretical Neuroscience
- Waterloo International Science and Technology Initiative
- Centre for Society, Technology and Values
- Canadian Centre of Art and Technology
- International Tobacco Control Project
- Stratford Institute for Digital Media and Global Business

USING AND UNDERSTANDING NEW TECHNOLOGIES

The **Wolfe Chair in Scientific and Technological Literacy** provides an exceptional opportunity for Waterloo to build on its recognized cross-disciplinary strengths and to play a global leadership role in the promotion of scientific and technological literacy. Consistent with Waterloo's educational traditions, this initiative is based on a comprehensive approach to learning and teaching.



In addition to traditional learning methods, students will benefit from online learning, capitalizing on new and emerging technologies to work independently and find opportunities to connect with people at a distance. Embracing this approach, the Chair will establish two upper-year courses for students in all disciplines: *Scientific and Technological Literacy I: The Foundations of Scientific and Technological Innovation*; *Scientific and Technological Literacy II: The Human Dimensions of Scientific and Technological Change*.

The University will support the Wolfe Chair by developing a full range of web-based and digital instructional tools. These include online course materials; podcast lectures; open-source delivery systems for course topics, allowing students, faculty and the general public to exchange experiences and insights; as well as activities adapted for new media and social networking applications.

While Waterloo offers a wealth of expertise in both the development of science and technology and the ability to use it to facilitate learning, the Arts disciplines are uniquely positioned to teach, research and promote a critical understanding of the impacts of such advances.

» Arts has become a national leader in knowledge mobilization (academic outreach and public education) and co-sponsors the UW Science Shop along with the only cross-disciplinary graduate-level courses on knowledge mobilization in Canada.

» The Department of Philosophy already teaches units on critical reasoning about science to over five hundred students per year, drawn from every discipline at Waterloo. The Department played an integral role in the establishment of both the Centre for Knowledge Integration (housed in the Faculty of Environment) and the Centre for Society, Technology and Values (housed in the Faculty of Engineering).

» The University of Waterloo's Stratford Institute is a think-tank, integrator and training centre devoted to collaboration between digital media, international commerce and culture; it will be home to a graduate program in Digital Media and an undergraduate program in Global Digital Media.

» Waterloo wishes to thank Christie Digital Systems for their gift of \$125,000 in support of this project.