

Physics & High Technology

www.uwindsor.ca/physics

A Physics degree is very versatile...

Our Physics and High Technology (PHT) program:

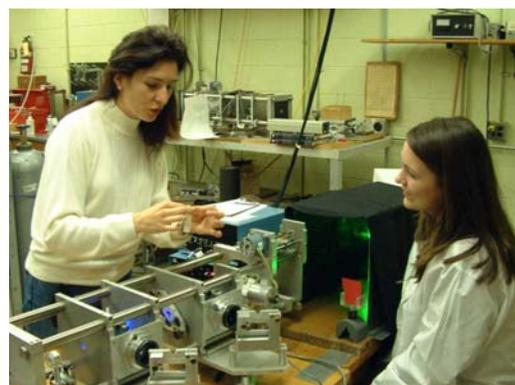
- Combines courses in physics, engineering, business and mathematics.
- Is designed to prepare students for leadership positions in both industry and academia.
- Comes in 4-year Co-op and 3-year Fast Track options.
- Allows for Minors in Computer Science, Mathematics and Business.

We also offer joint multidisciplinary B.Sc. degrees

- Chemistry and Physics
- Physics and Computer Science
- Double majors (ex. Physics & Biology, Physics & English, etc.)

that allow you to focus on your interests and strengths.

Course details and entry requirements are available from our web site: www.uwindsor.ca/physics



Students Elly Blejdea and Violeta Plasecka experiment with a dye laser.

Diverse Career Tracks

A degree in Physics and High Technology offers you the opportunity to be at the forefront of science and engineering. The *reasoning, mathematical, experimental and computer skills* acquired with a physics degree empower you to pursue careers such as

- University professor
- Research scientist
- Software engineer
- Financial analyst
- Patent lawyer
- High-school teacher
- Medical Physicist
- R&D engineer
- Physician / Dentist
- Entrepreneur

The average starting salary for a graduating Physics major is \$48000, about the same as those for accounting and engineering majors.



Student Adam Aczel assembles a high-energy electron gun as part of his co-op project.

Graduates have gone on to other programs at various Universities, including: Toronto, UBC, McGill, Princeton, Harvard, MIT; and companies such as Ford, DaimlerChrysler, Edward-Jones, etc.

Windsor's World-Renowned Faculty

Committed to Excellence in both Teaching and Research.

The Department of Physics has young and experienced faculty with interests and expertise in a diverse number of exciting fields:

- Acoustic Microscopy and Materials Characterization
- Nanoscale Electronics
- Quantum Optics and Quantum Computing
- Atomic, Molecular and Cluster Physics
- Biophysics and medical physics

The Department hosts the NSERC/Daimler-Chrysler Chair in Applied Solid State Physics and Materials Characterization and a number of *multidisciplinary projects* are being performed in conjunction with other departments in science and engineering.

Our undergraduates have the opportunity to do world-class research with our faculty members, attend international conferences, and publish in scientific journals.



Dr Elena Maeva using a scanning acoustic microscope with student Ian Bruno.

Students work closely together in a friendly community of professors and fellow students.

Windsor's Physics Faculty provide a learning-centered experience

Mentoring program:

Each student has a Faculty Mentor who guides them throughout their undergraduate years.

Graduate consultants:

Graduate students provide free instructional support at the Science Resource Center.

Teaching laboratories:

Every student has the opportunity to use state-of-the-art equipment in our computerized instructional laboratories. Our students learn to use advanced technologies such as fiber optics, laser spectroscopy, acoustic microscopy, etc.



Dr Tim Reddish explaining the design of a novel electron spectrometer to student Jeff Matos.

Scholarships

A number of prestigious scholarships are available:

- The University's Outstanding Scholars Program
- Physics & High Technology Entrance Scholarship
- Copernicus Scholarship
- General University Scholarships

Did you say professional school?

A Physics degree is excellent preparation for professional schools such as medicine, dentistry, business and law. The PHT program is flexible enough that you can cover all the requirements for admission into professional schools in Canada and the United States. Talk to the academic advisor to design your program appropriately.

Physics & High Technology's Co-op Option

offers students the opportunity to gain valuable work experience working at companies and research labs such as:

*Centerline Ltd.
Siemens Automotive
National Research Council
Windsor Regional Cancer Center
Daresbury Synchrotron Radiation Source, UK
TRIUMF National Nuclear Labs, BC
Queen's University, Belfast, Ireland
Proto Manufacturing Ltd
Ford Motor Company*

Each year, our students win national competitions to participate in prestigious co-op placements.

Undergraduate Research



Student Brandon Disher presents his project on Medical Imaging.

Our undergraduates are encouraged to be involved in Physics research from the first year that they join the program. Several students are co-authors on scientific publications before they graduate! Some of the exciting research carried out by our undergraduates are:

- *Designing bioimplantable fuel cells*
- *Trapping atoms using lasers*
- *Mapping molecular reactions*
- *Building electronic circuitry*
- *Developing computer codes for high-precision spectroscopy*
- *Breast cancer and prostate cancer research*
- *Acoustic imaging of biological systems*

For more information, or to schedule a tour of the Department, please send an email to physics@uwindsor.ca.