



## The University of Victoria

The University of Victoria is one of Canada's leading universities, well known for its leadership in research, innovative teaching, and position as a vibrant community resource. UVic researchers participate in 13 federal Networks of Excellence, leading all Canadian comprehensive universities in the size and number of medical and science grants per faculty member. Uvic ranked third in *Research Infosource's* Research University of The Year rankings for 2005.

The UVic campus encompasses 160 hectares of magnificently landscaped parks and gardens, with chip jogging trails winding through the naturally forested periphery. The campus is a 10 minute walk from the beach, and a 15 minute bus ride from elegant downtown Victoria.

- Student Enrollment: Total ~20,000 with ~2400 graduate students: 70% from outside Greater Victoria, and 60% female.
- The Chemistry Department is home to 60 graduate students, and 10 postdocs.
- Campus and departmental tours are offered on a prearranged basis following admittance to the Graduate Program. Up to \$1000 of the cost of your travel fare and accommodation will be reimbursed based on distance.

### Graduate Admissions

The Department welcomes applications from students with undergraduate or Master's degrees with high standing (at least a "B" average). Applications for prospective students are processed initially by Graduate Studies for approval of minimum requirements. Official copies of transcripts and letters of reference are required of all students. In addition, students from outside Canada are generally required to provide the Graduate Record Examination (GRE), and those from non-English speaking

countries also required to write the Test of English as a Foreign Language (TOEFL). The minimum acceptable TOEFL score for graduate admission is 575 on the paper-based exam or 233 computer-based). If TOEFL is not available in your area, IELTS (minimum average 7.0 score, and no test sections under 7.0) is acceptable. Once approved, the application is processed by the Chemistry Department Graduate Committee. Acceptance of an application by the Chemistry department is made upon approval of performance credentials, and acknowledgement of at least one offer of support by a member of the Chemistry Faculty. Applicants are therefore encouraged to contact the faculty member of their choice, and the Graduate Secretary (Carol Jenkins cjenkins@uvic.ca) upon application to Graduate Admissions. The deadlines for receipt of applications and all ancillary materials is April 30, however applications are accepted throughout the year. Consideration for graduate student awards can only be made for applications received prior to Feb 1.

### Awards and Stipends

In addition to university, provincial, and national awards, the Chemistry Department offers a number of awards to students of high standing. All applicants are automatically considered for such awards.

Students without fellowships or awards are guaranteed a minimum stipend which is paid from a Graduate Research Stipend, paid by the student's research supervisor, and a Graduate Teaching Assistantship, paid by the Department. Responsibilities of the Teaching Assistantship typically involve 6-8 hours per week of grading or laboratory supervision during the Fall and Spring terms (8 months) of the academic year. For current stipends, please consult the Departmental web site.

### Programs

The Department of Chemistry offers a wide variety of research programs leading to a M. Sc.

or Ph. D. in organic, inorganic, analytical, physical, biological, and materials chemistry. These programs are supported by extensive in-house infrastructure including a CFI/NSERC supported laser facility, NMR, EPR, IR, and Uv-Vis spectrometers, Mass Spectral Analysis laboratory, magnetometer equipped with a laser and conductivity equipment, and optical technology for analysis of nanoparticles and surfaces.

The Graduate degree for Ph. D. requires a total of 46 units: 6 courses, seminar, and research work supported in a Thesis which is defended at a final oral exam. There are no entrance examinations or qualifying exams. Candidates are requested to complete a Ph. D candidacy exam within 2 years of registration as a Ph. D student. Students accepted into the M. Sc. Program may transfer directly into the Ph. D program without completing their M. Sc. provided they are in strong academic standing and have made significant research progress in their chosen area of study.

### Selecting a Research Supervisor

Selection of the research supervisor may be made either before arriving in the department or after arrival. Upon acceptance to the department, students may contact individual faculty and if desired, select a supervisor before arriving in the department. Alternatively, if a student has several offers from individual faculty, the student may join the department, meet faculty and choose a research supervisor. Students typically choose a research supervisor by the end of the first semester. It is therefore not a requirement to arrive with a prearranged supervisor.

### For more information contact:

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<http://www.chemistry.uvic.ca/>

## Programs of Study

### Organic Chemistry

*Synthesis of heterocycles, peptides, macrocycles, stable organic radicals, photochromes, aromatics; synthesis and characterization of optical, magnetic, and conducting materials; synthesis and characterization of biologically relevant systems.*

### Biological Chemistry

*Molecular recognition, membrane transport phenomena, ion channel processes, biomimetic signal processing, host-guest chemistry,*

### Materials Chemistry

*Magnetic materials, magneto-conducting, photomagnetic, electro-optic, nonlinear optic, electronic, quantum dot and photonic materials; conducting polymers, and fuel cells.*

### Inorganic Chemistry

*Coordination chemistry of early transition metals and lanthanides; organometallic reaction pathways, catalysis, ionic liquids and green chemistry; polysilanes, nanoparticle synthesis and main group heterocyclic chemistry.*

### Physical Chemistry

*Laser spectroscopy including: time-resolved fluorescence and absorption, laser temperature jump experiments, plasmon-enhanced nonlinear optical processes, nonlinear vibrational spectroscopy, and investigation of excited state charge transfer processes in organic molecules; surface electrochemistry, electrodeposition of new materials; and computational chemistry of materials and biological systems.*

