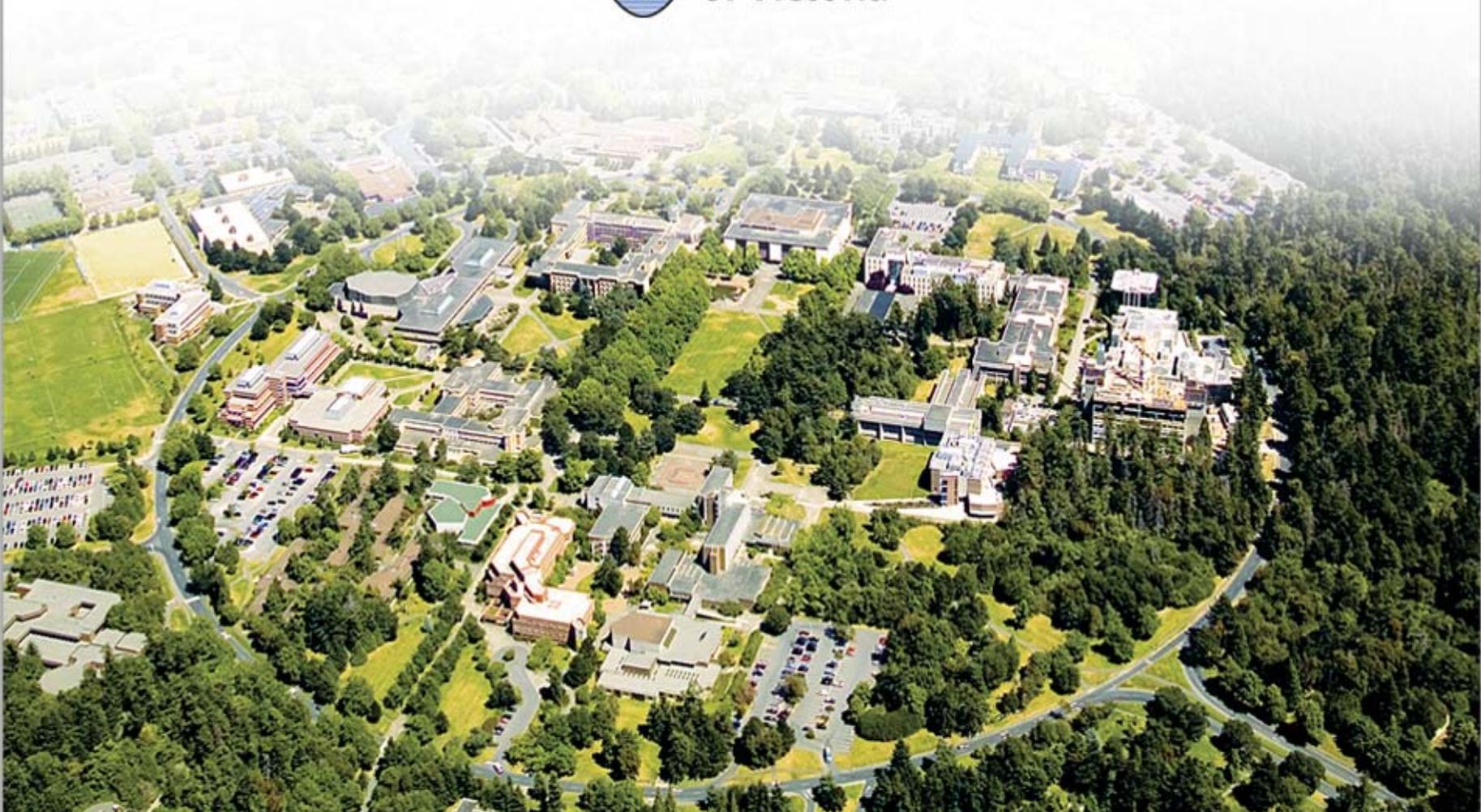


The Current State of Co-op Education in the World: Learning from the Canadian Experience



The Current State of Co-op Education in the World: Learning from the Canadian Experience

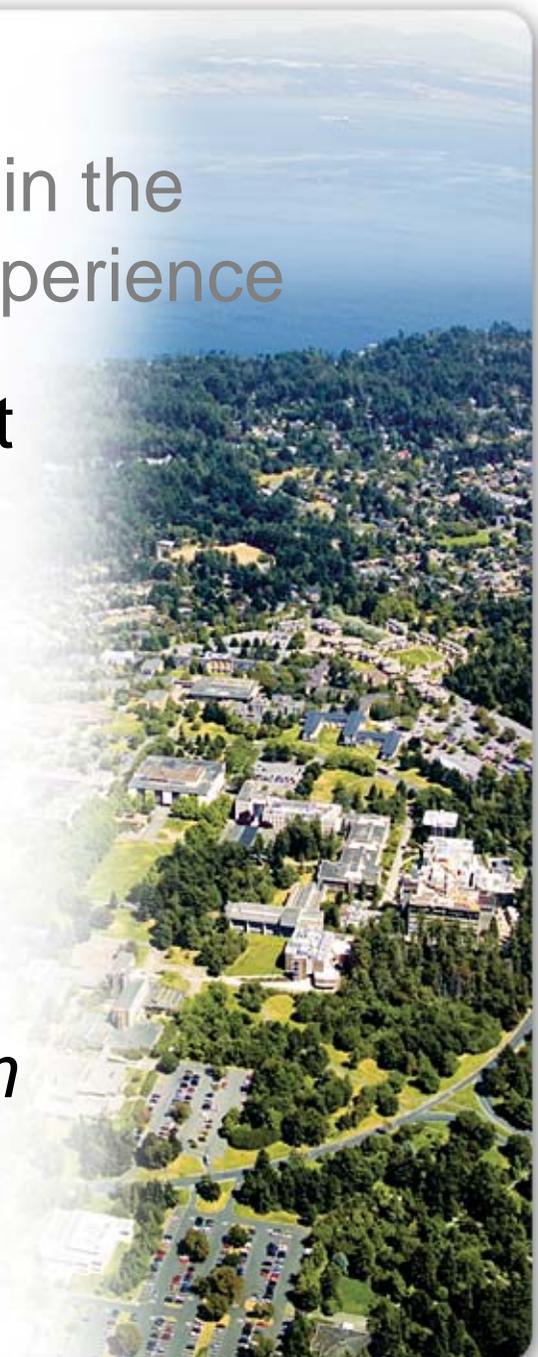
What is happening and why does it matter?

How could it matter more?

Norah McRae

Executive Director

*Co-operative Education Program
and Career Services*



A Brief History

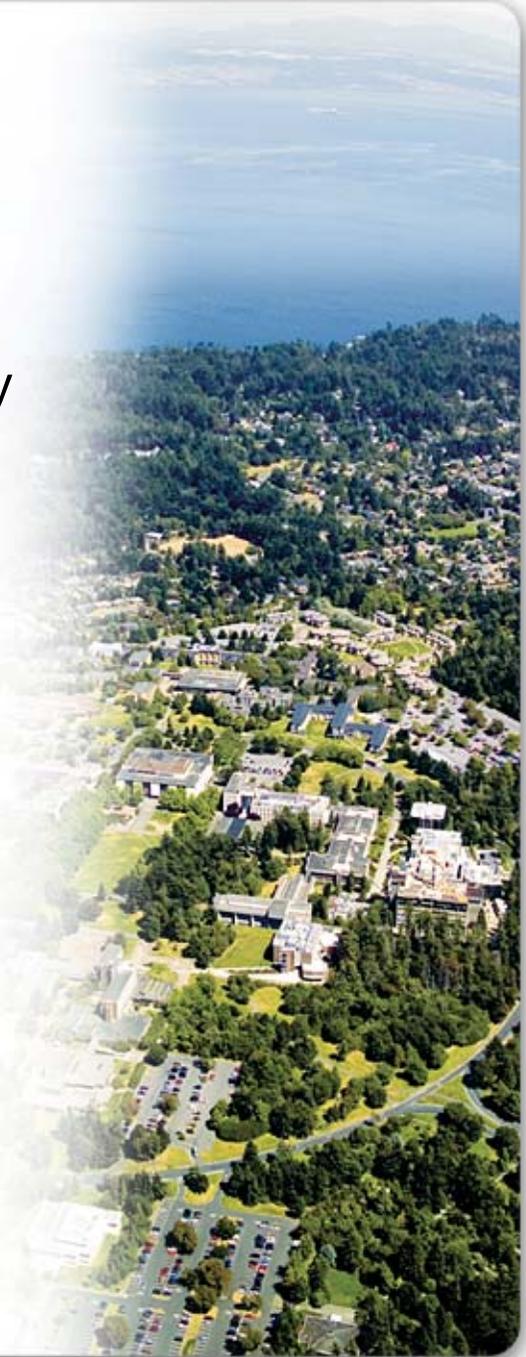
Based in the educational philosophy of the father of “Experiential Education”, John Dewey (1859-1952), who was a proponent of hands-on learning and believed that education was based on “quality of experience” and not only about the successful transmission of facts.

The “quality of experience” being made up of:

- continuity (the experience comes from and leads to other experiences)
- interaction (the experience meets the internal needs or goals of the person)

(Experience and Education, 1938)

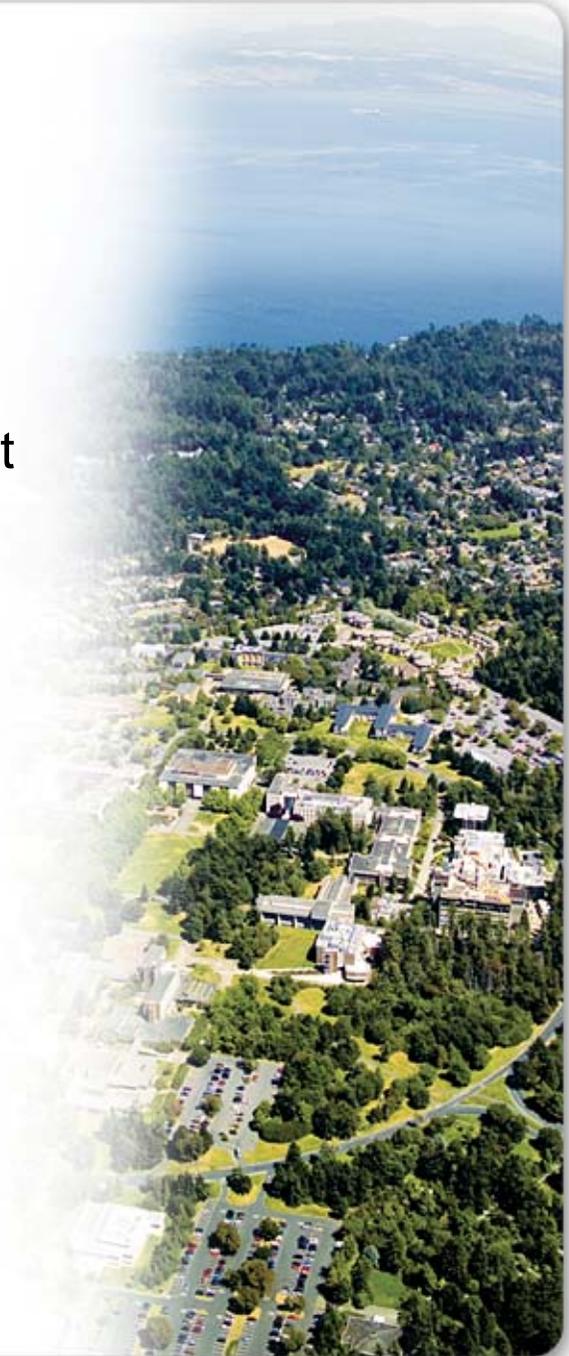
Avoid “mis-educative” and “non-educative” experiences



A Brief History

Co-operative education also has its roots in the work of Jean Piaget (1896-1980) who developed a theory of cognitive development based on the idea that learning occurs when children act on and reflect on the effects of their previous knowledge. This development requires:

- objectification
- reflection
- abstraction

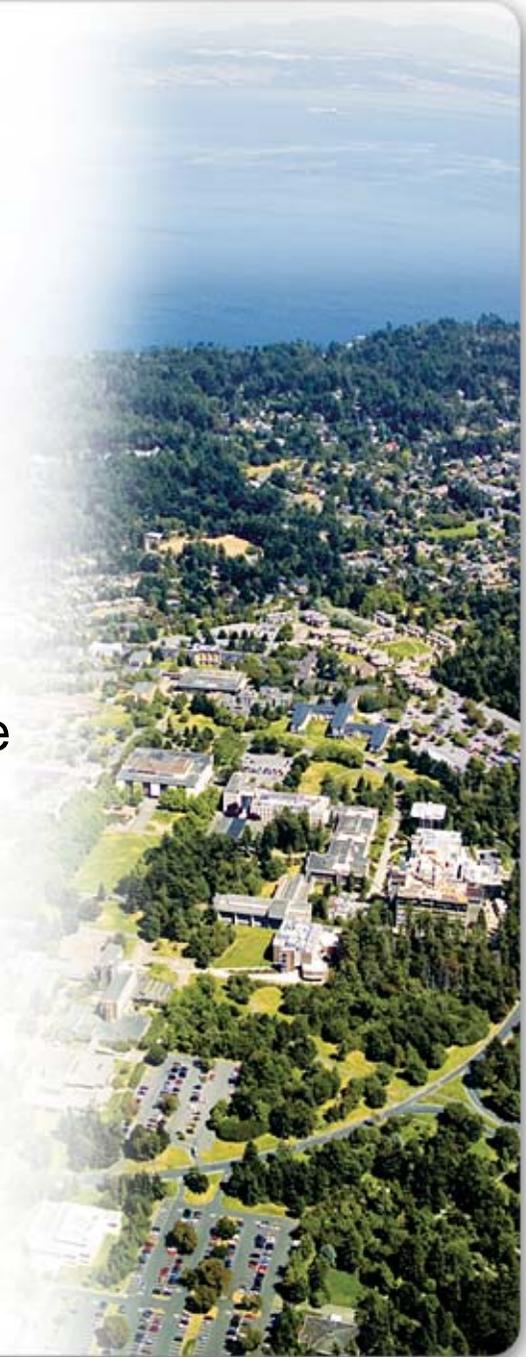


A Brief History

The classic model of co-operative education was derived from the work of David Kolb (b. 1939) an educational theorist influenced by Dewey and Piaget who developed the Experiential Learning Model (ELM):

- concrete experience
- observation of a reflection on that experience
- formation of abstract concepts based on that reflection
- testing the new concepts

Learning usually starts with the experience and evolves as a spiral through all components.



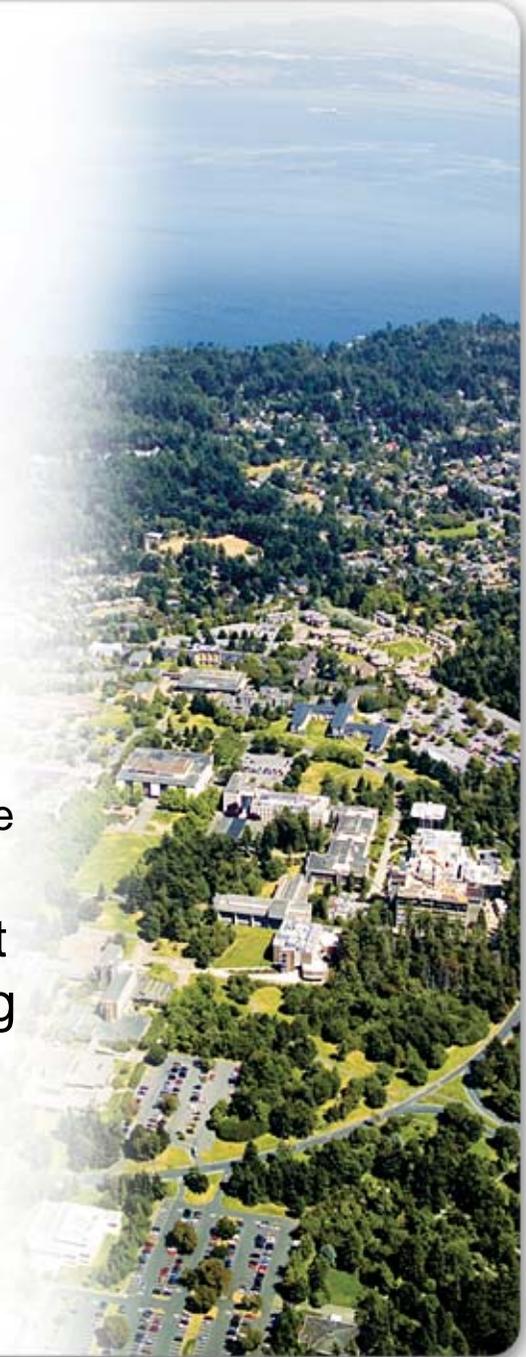
A Brief History

These experiences do not occur independent of support from educators and are enhanced through appropriate supports, an idea derived from Vygotsky's (1896 – 1934) Zone of Proximal Development. Defined as:

“the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers”

The role of educators being to put and support students in their ZPD and thereby encouraging and advancing their learning. *Mind in Society:*

Development of Higher Psychological Processes, 1978

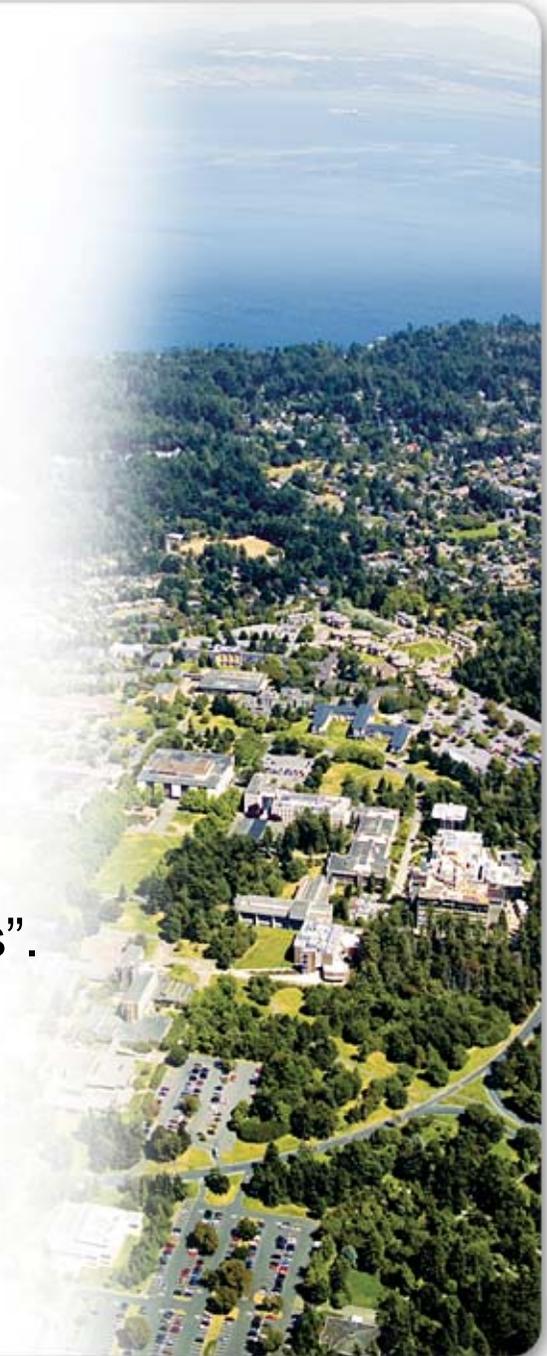


A Brief History

More recently there has been work in the development of Transformational Learning Theory, eg Mezirow, 2000. Involving:

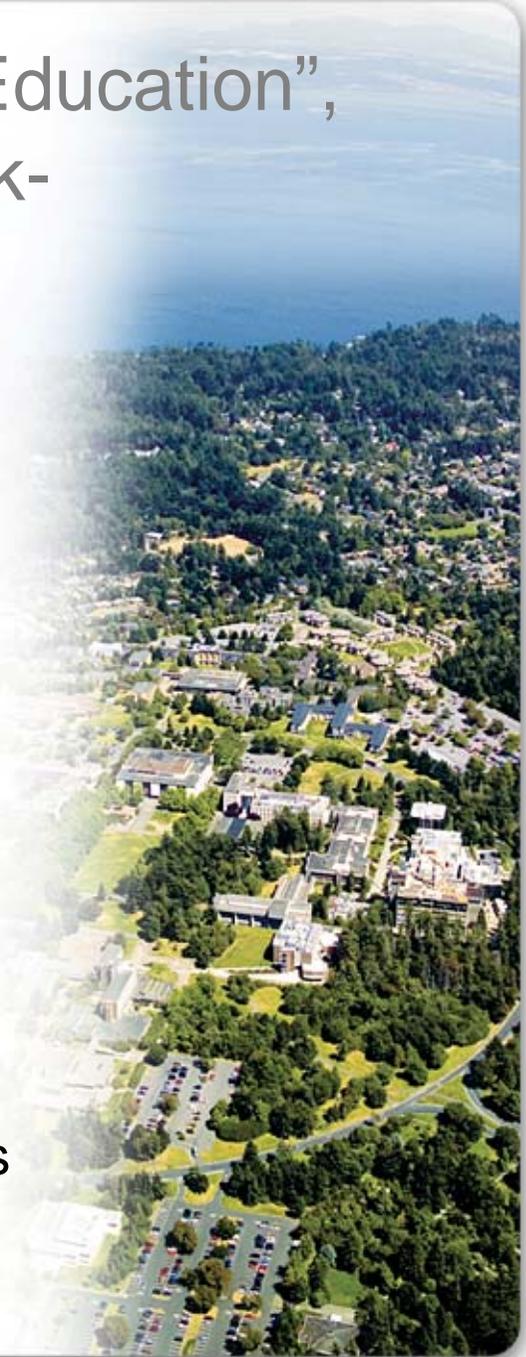
- critical reflection
- reflective discourse
- action

All leading to transformative learning which is a learning process of : “becoming critically aware of one’s own tacit assumptions and expectations”. Requires that the learner “owns the learning”. Transformative learning has both a rational and an emotional dimension.



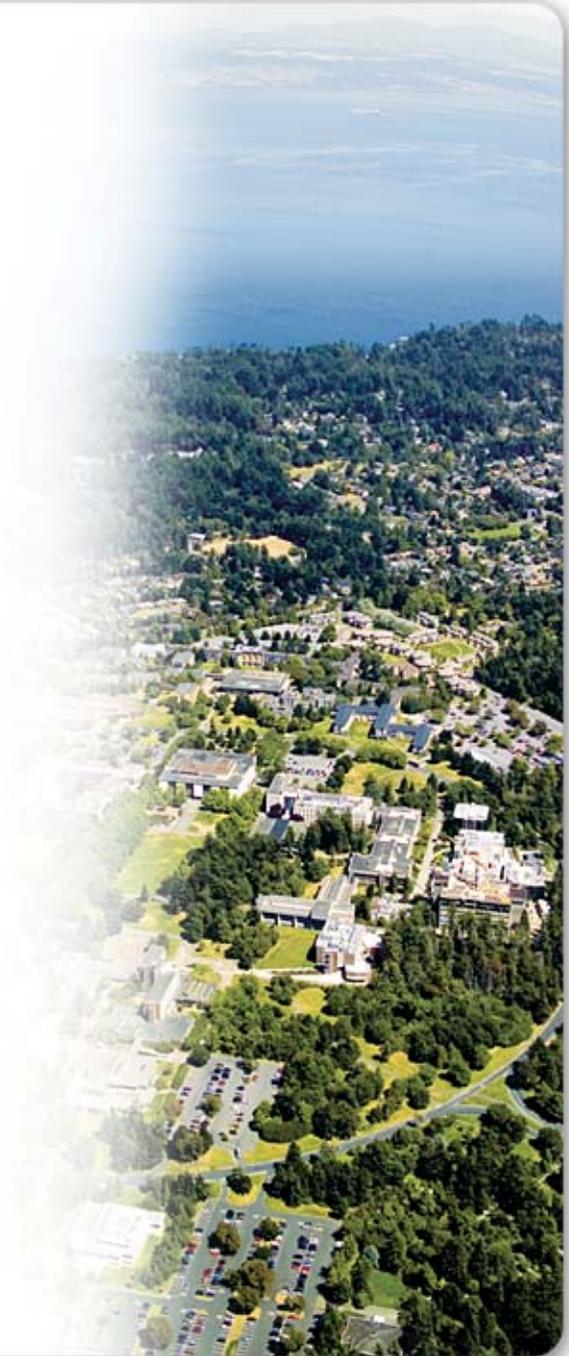
Universal Elements of “Experiential Education”, or “Co-operative Education”, or “Work- Integrated-Learning”, or...

- Grounded in an educational discipline
- Involves quality experiences (Dewey, Piaget, Kolb’s ELM)
- Involves critical reflection (Dewey, Piaget, Kolb’s ELM, Mezirow)
- Includes integration back into the educational environment (Dewey’s continuity, Kolb’s ELM, Mezirow)
- Supports the learning and career goals of the student (Dewey’s interaction, Mezirow)
- Requires support from the educational institution: before, during and after (Vygotsky’s ZPD, Mezirow)



Differences among models:

- Length of time in the experience
- Alternating shorter experiences vs singular experience
- Paid vs unpaid experiences
- Strength of link to academic discipline
- Level of critical reflection
- Amount of integration back into the educational environment
- Level and type of support offered by educational institution



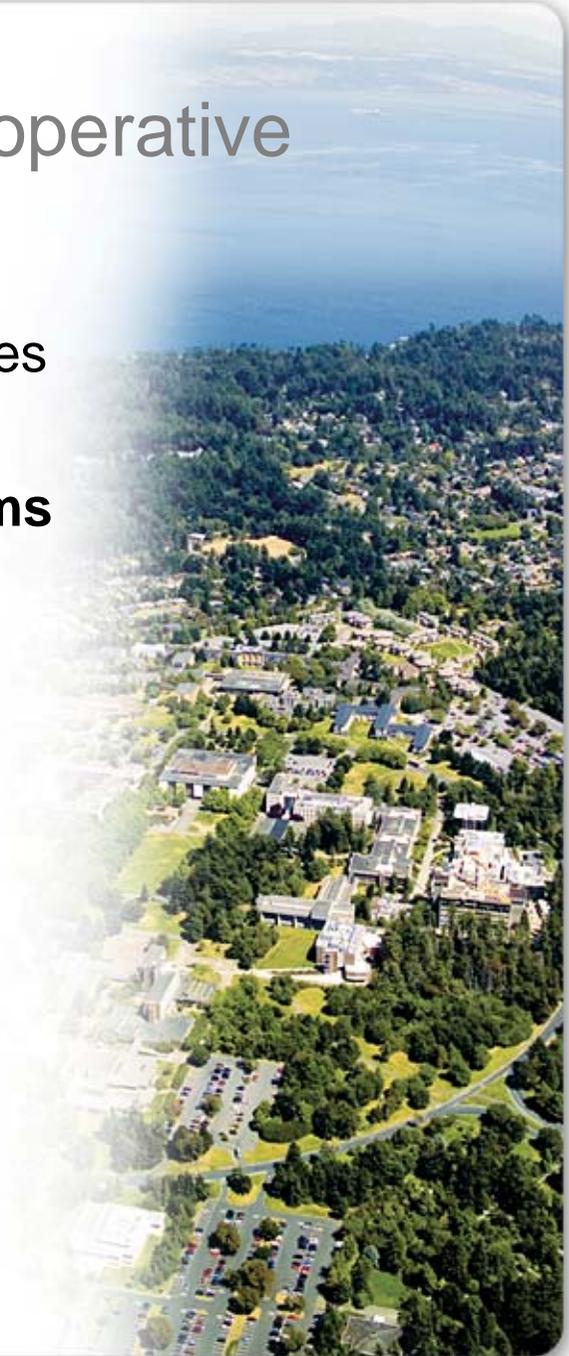
Typical UK, Australian, and New Zealand Model: “Sandwich Education”, “Work-Integrated-Learning”, “Practical Training”

- Students work in a field related to their studies
- Student alternate **one longer work term** with study terms
- Students are paid by the employer
- Students complete a reflective assignment
- There is a strong emphasis on employability
- There are associations for practitioners



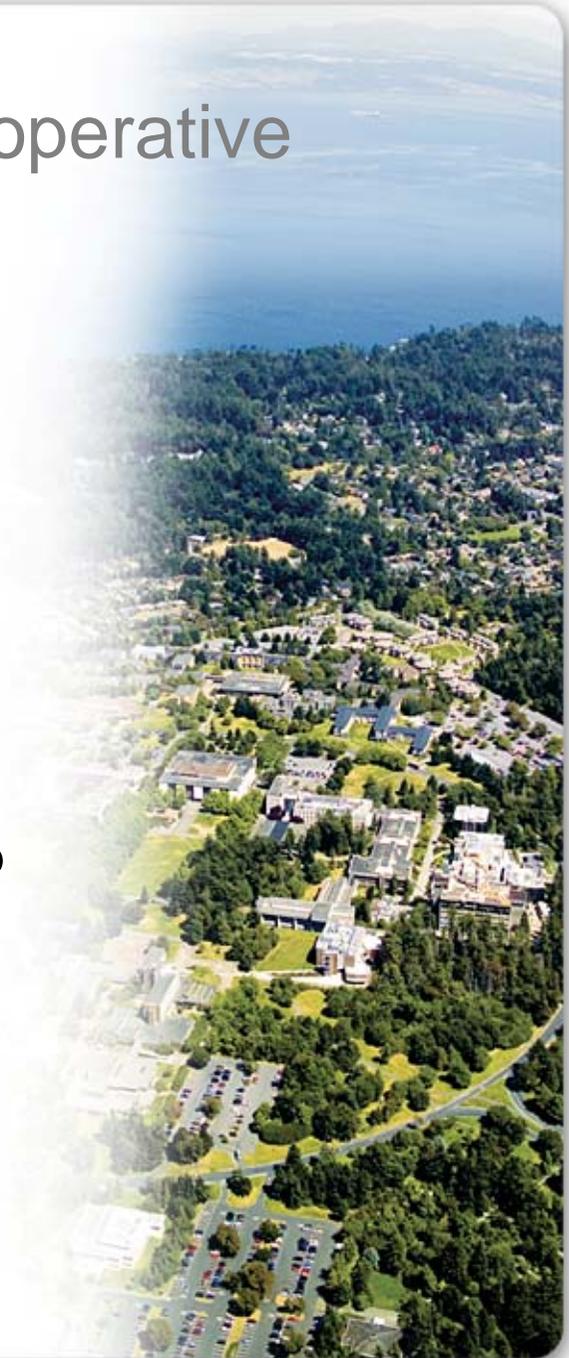
Typical North American Model: Co-operative Education (co-op)

- Students work in a field related to their studies
- Student **alternate semester long work terms with study terms**
- Students are paid by the employer
- Students complete a reflective assignment
- There is a strong emphasis on employability
- There are associations for practitioners



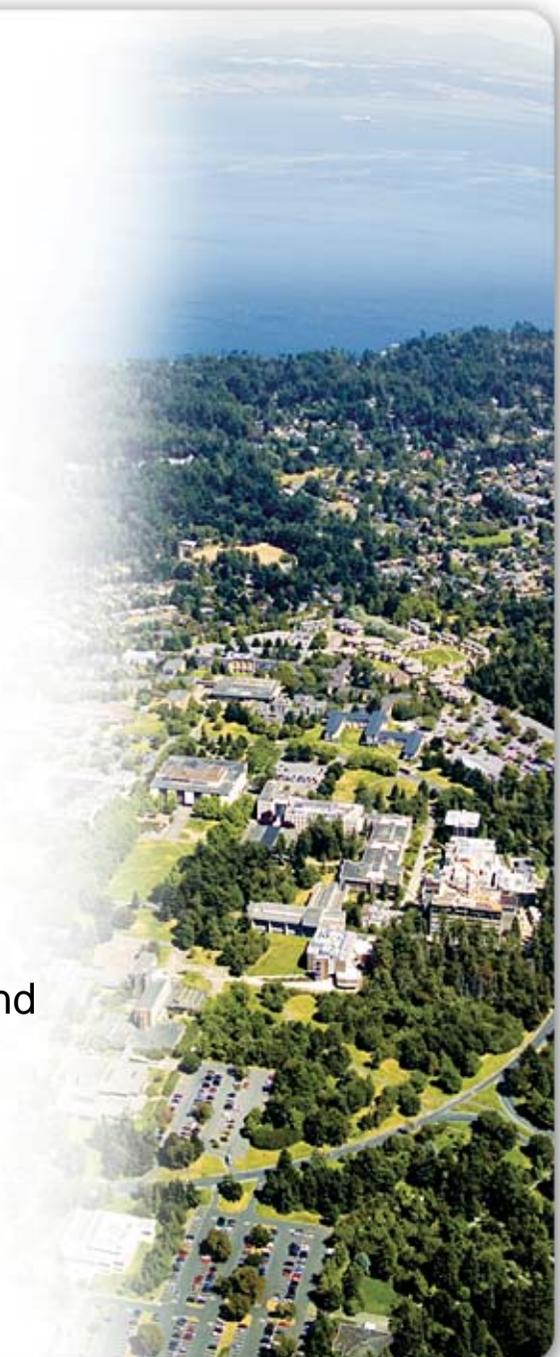
Typical North American Model: Co-operative Education (co-op)

- In Canada began in 1953 at University of Waterloo
- In Canada 80 colleges and universities offer versions of co-op with 80,000 students participating
- Students earn on average \$2500 per month
- Over 90% of students graduating from co-op programs have jobs upon graduation
- Canadian Association for Cooperative Education (CAFCE):
<http://www.cafce.ca/pages/home.php>



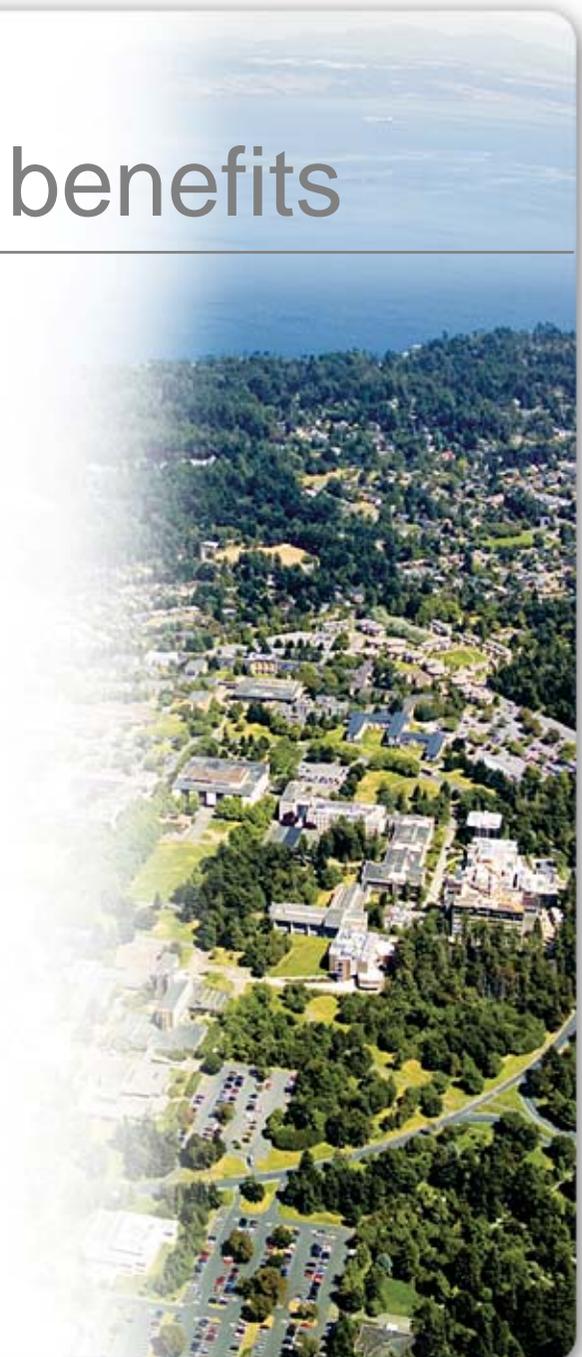
CAFCE Accreditation

- In Canada, members of CAFCE adhere to a set of accreditation standards such that all accredited programs follow these criteria:
 - Work experiences are linked to academic discipline and alternate
 - Work experiences are approved by the educational institution
 - The student is engaged in productive work
 - The student receives remuneration
 - The student's job progress is monitored
 - The student's job performance is supervised and evaluated
 - The time spent in work experiences must be at least 30% of the time spent in academic study



Why it matters: institutional benefits

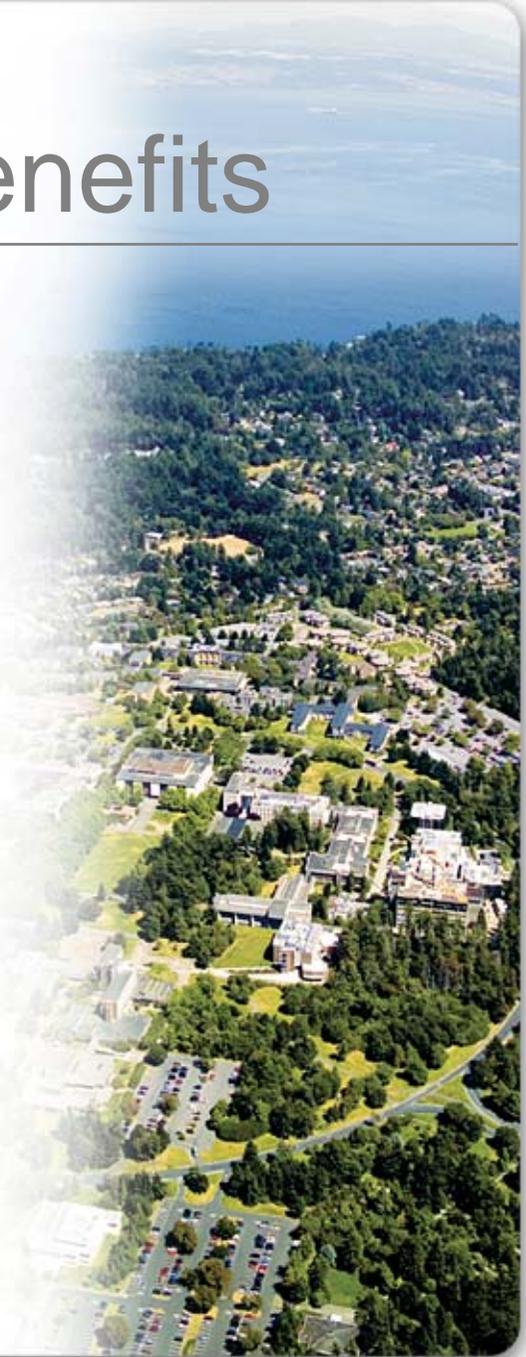
- Plays a significant role in attracting students to an institution and to programs (*ACE Research, 2009; Ipsos Reid, 2010*)
- Student engagement and retention
 - George Kuh's Model for Student Engagement (National Survey for Student Engagement):
 - Level of Academic Challenge
 - Active and Collaborative Learning*
 - Student Faculty Interaction*
 - Enriching Educational Experiences*
 - Supportive Campus Environment
 - Strong links to the community



Why it matters: student benefits

Vast majority of co-op students believe their Work term had an impact on their Career, Employment, and Learning

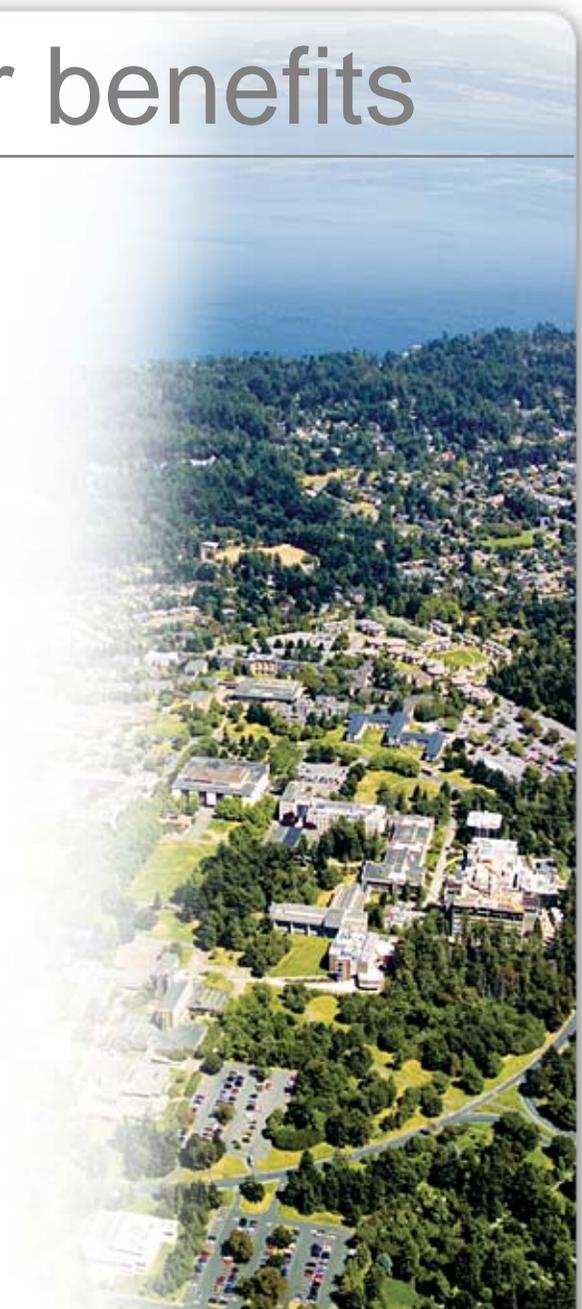
- A significant majority of Canadians who enrolled in co-op programs say their work term made a significant difference in their future work and educational pursuits.
- Fully 79% feel their co-op program influenced at least somewhat their decision about what career they would choose.
- For 83%, the co-op program improved their integration into the workplace
- 84% - feel their co-op work term assisted them with their academic learning (*Ipsos Reid, 2010*)



Why it matters: employer benefits

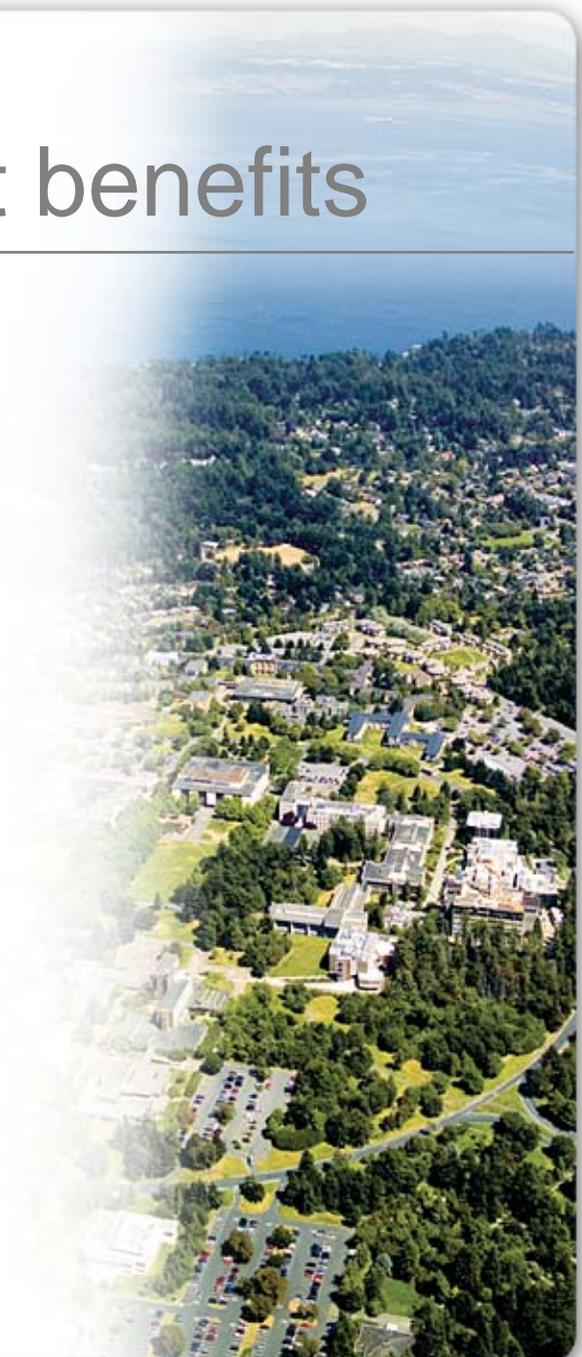
- Help for special projects
- Cost-effective recruitment
- Link to developing technology, skills and practices
- Expanded relations with the University

(University of Victoria Co-operative Education and Career Services survey of Employers, 2009)



Why it matters: government benefits

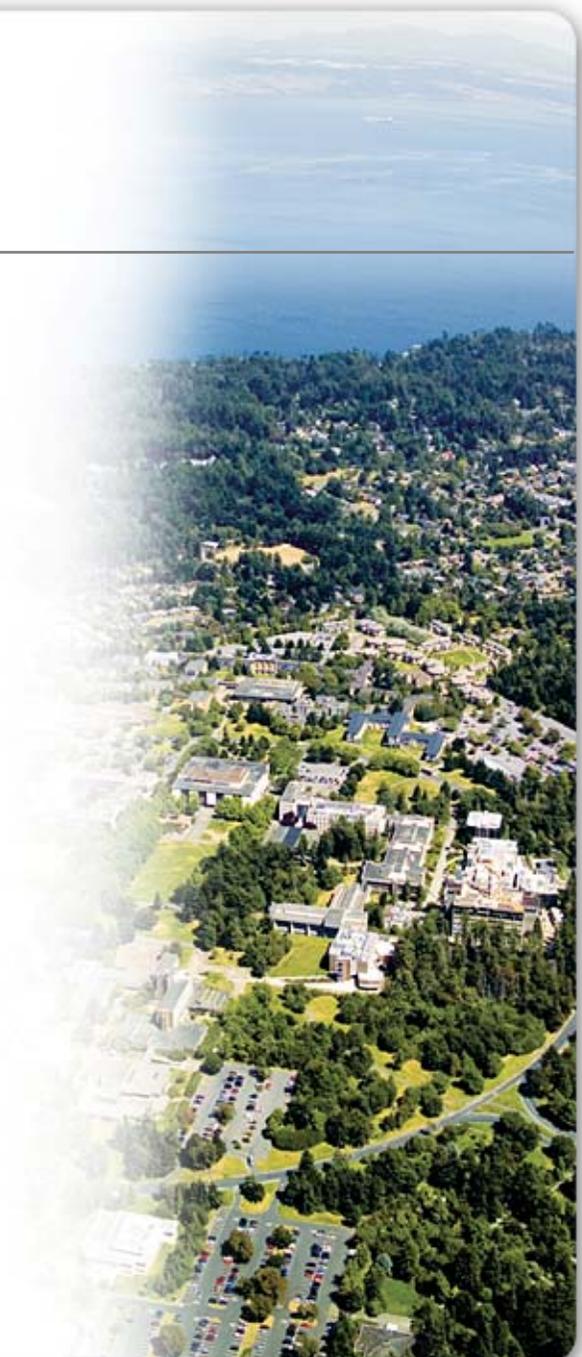
- Students can better finance their education
- Students create value in industry
- Better “wayfinding” leads to more efficient use of public education funds
- Creates stronger linkages between university and industry



The University of Victoria

UVic received degree granting status in 1963, but the origins of UVic can be traced back to 1903 and the establishment of Victoria College, the university's predecessor institution and a part of McGill University.

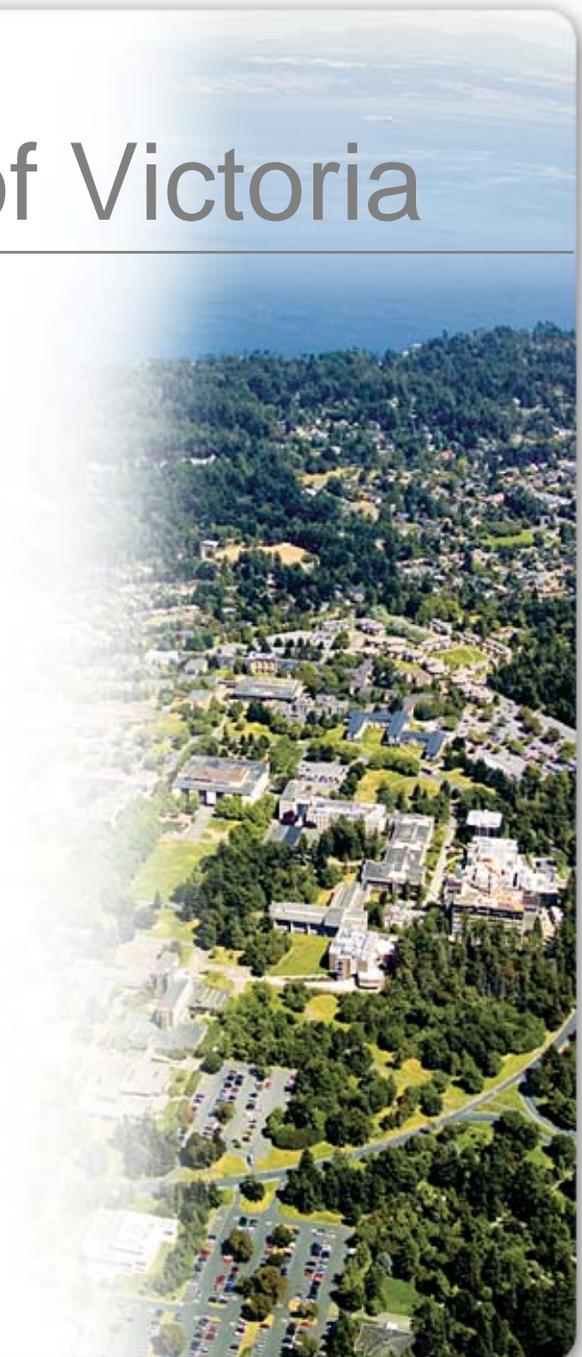
- 19,432 students including 2,593 graduate students
- 70 per cent of undergraduates come from outside Greater Victoria and 1,414 are international students
- 850 faculty members, 716 sessional instructors, 822 specialist/instructional staff, 39 librarians
- 99,715 degrees, certificates and diplomas have been awarded



Co-op at the University of Victoria

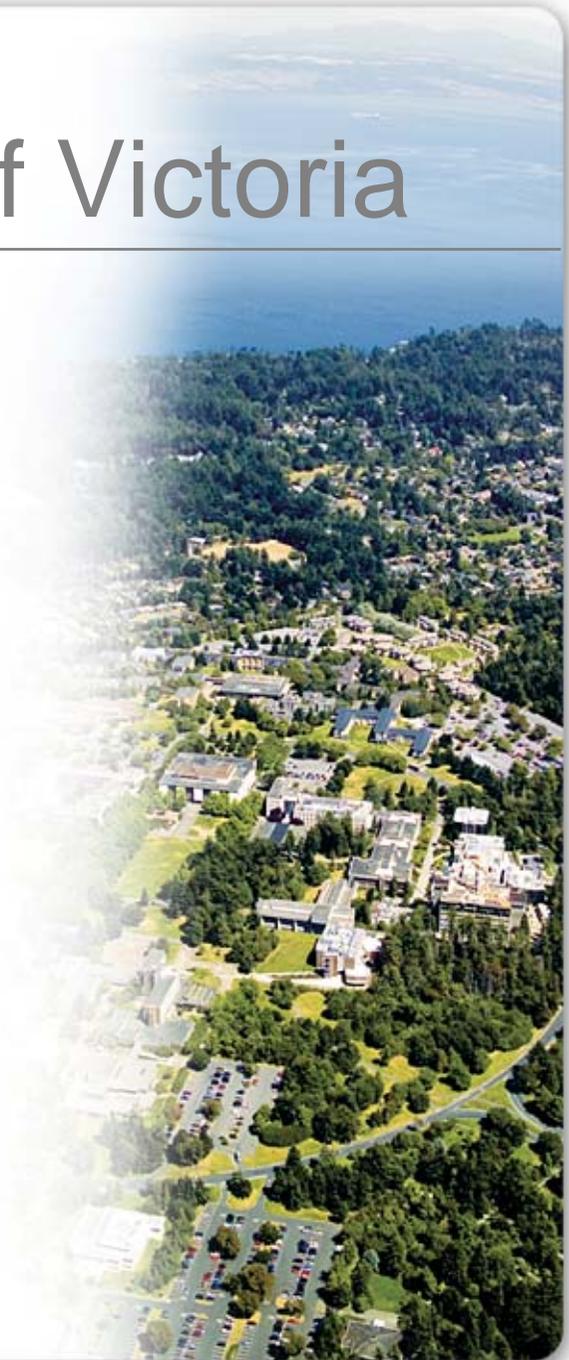
Vision Statement:

“UVic Co-op and Career strives to develop graduates who are prepared to excel in their chosen field, to contribute to the community and society and to achieve their personal goals. We aim to guide and support students as they develop knowledge, skills competencies and self-awareness leading to successful and rewarding careers.”



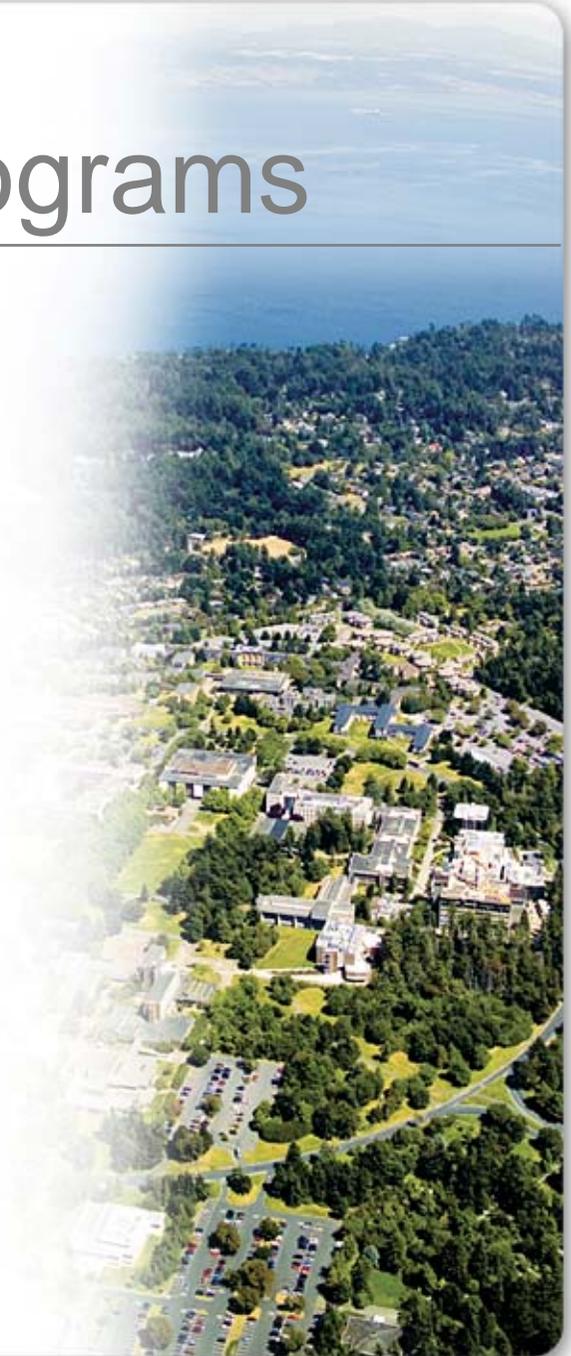
Co-op at the University of Victoria

- The University of Victoria was one of the first Canadian universities to initiate a co-op program, launching our first program in 1975
- Today, we are organized into 13 different co-op offices representing all 10 faculties and 45 academic departments and are among the largest co-op programs in Western Canada
- We merged with Career Services in 2009
- Staff total is 70 with 45 professional staff all reporting to Executive Director
- Coordinators have Master's degrees and work with academic units
- Membership in ACE, CAFCE, CEIA, WACE



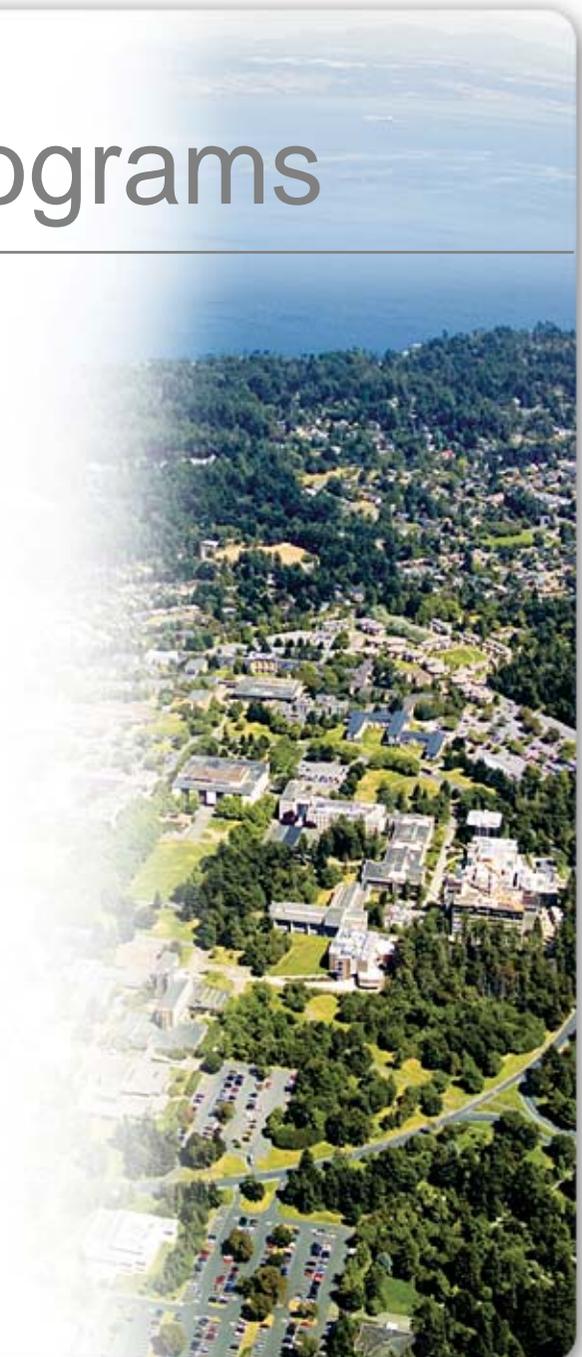
Undergraduate co-op programs

- Co-op is available in nearly every undergraduate program at UVic
- Some programs are mandatory for students in the corresponding academic programs, while others are optional
- Students earn 4.5 credits per work term which is equivalent to full-time status



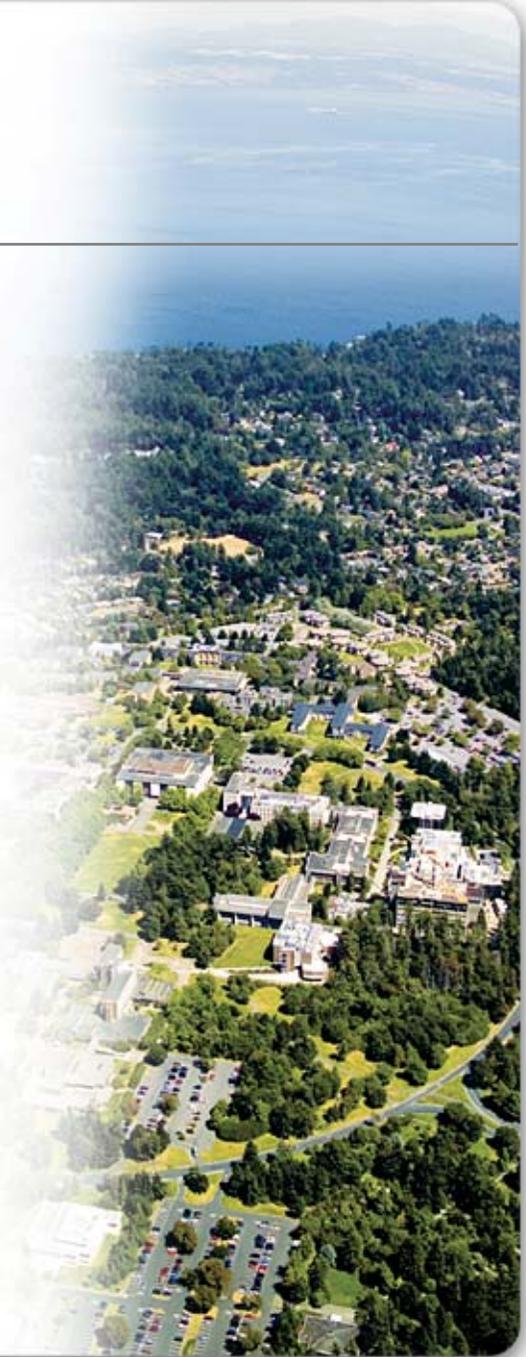
Undergraduate co-op programs

- UVic offers the following undergraduate co-op programs:
 - Biochemistry and Microbiology
 - Biology
 - Business (mandatory)
 - Chemistry
 - Computer Science/Mathematics
 - Earth and Ocean Sciences
 - Engineering (mandatory)
 - Health Information Science (mandatory)
 - Humanities, Fine Arts and Professional Writing
 - Law
 - Exercise Sciences, Physical and Health Education (mandatory for students in Recreation and Health Education)
 - Physics and Astronomy
 - Social Sciences



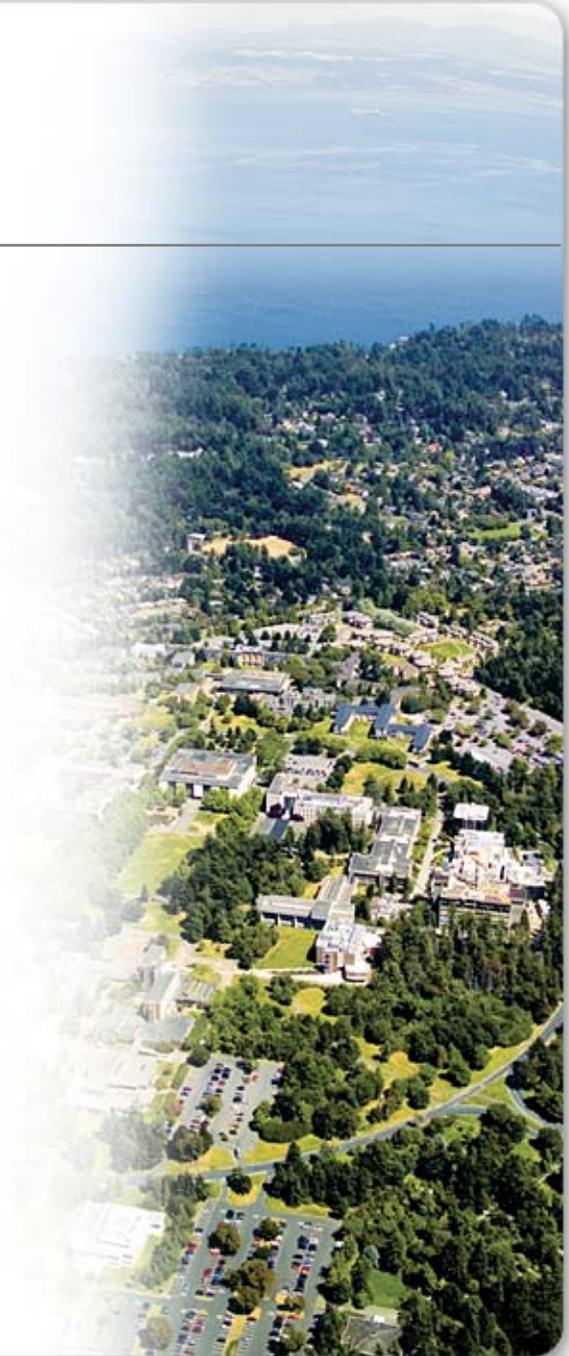
Graduate co-op programs

- Graduate co-op is available in most program areas and represents 10% of co-op students
- Our formal graduate co-op programs include:
 - Public Administration
 - Education (Coaching Studies)
 - Education
 - Business Administration (MBA)
- Where no formal graduate co-op exists, students may arrange to participate in co-op by speaking with the appropriate co-op coordinator or faculty member
- Students earn 3.0 credits equivalent to 1 FTE



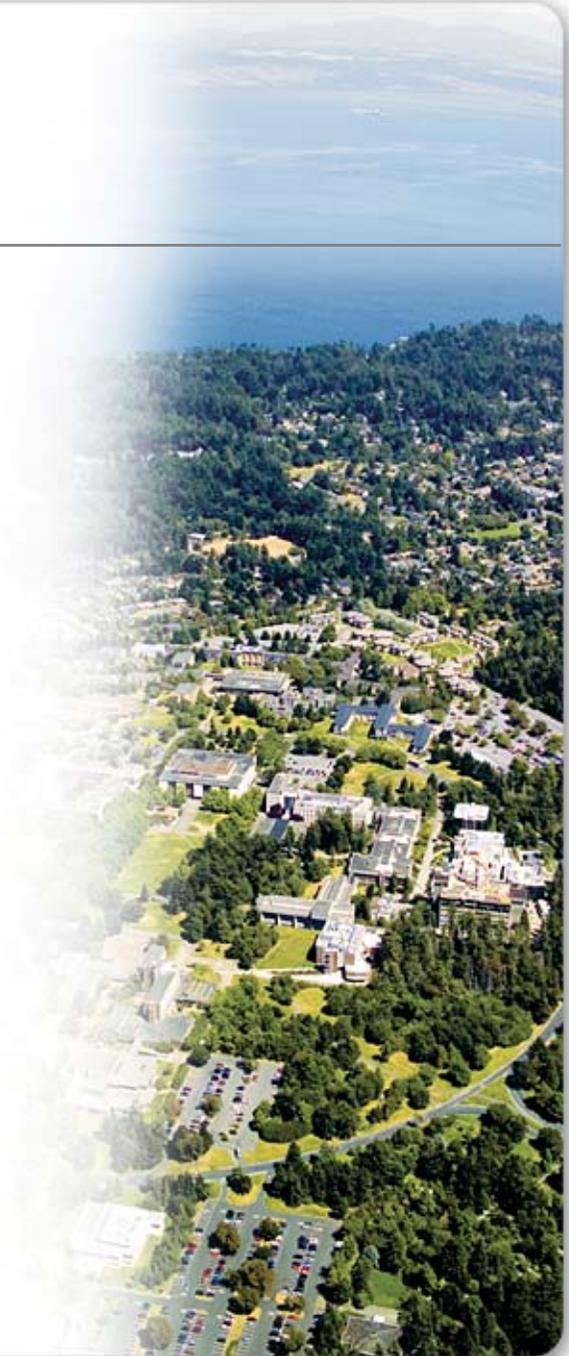
Student placements

- We place close to 2,700 students in work terms each year, earning an average of \$2700/month
- Our students work for more than 1,200 employers in Canada and across the world
- In 2008/09, our students completed 2679 placements
- 130 of these work terms were international, with students working in 35 countries



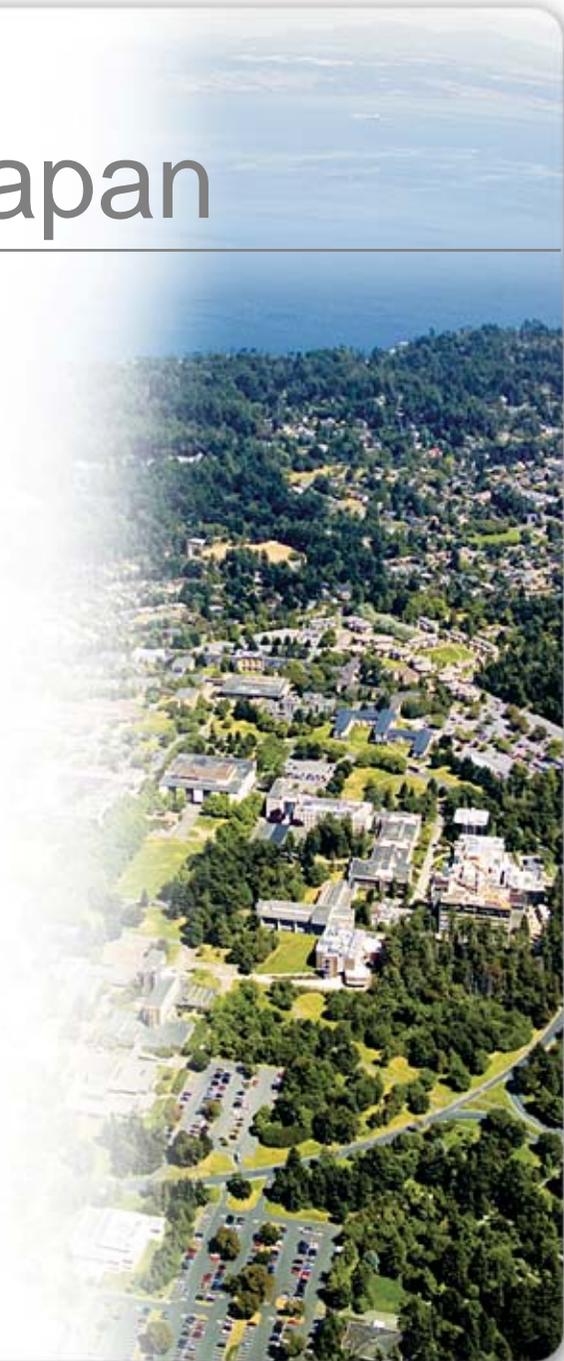
Student placements

- Students work for employers in fields as far reaching as business administration, mechanical engineering and recreation and health education
- 2679 placements: 50% private sector 50% public sector
- Of these placements 1209 were with different employers, 55% hired more than one student in the year, 87% hired from more than one program area
- 43% of students are female and 57% male



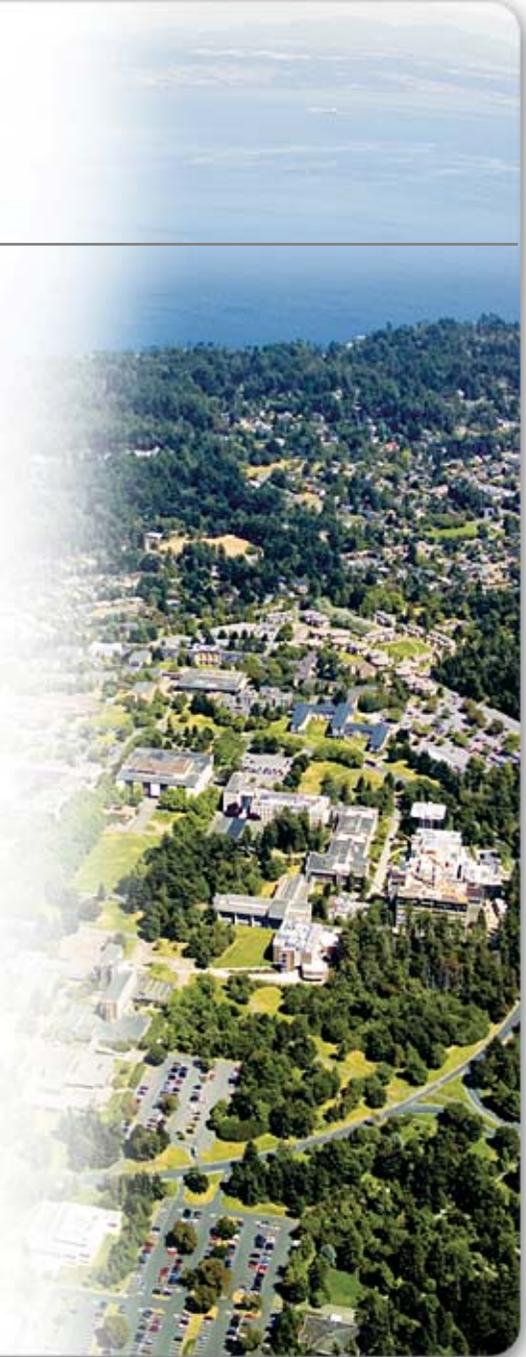
2008/09 placements in Japan

- UVic Co-operative Education Program participates in the Canada Japan Co-op Program managed by the University of British Columbia.
- 6 work terms were completed in Japan in 2008/09 through this program
- Companies students were placed at:
 - Hiyoshi Corporation
 - Osaka Gas Co. Ltd.
 - Sansyu Finetool Company, Ltd.



Work term criteria

- Work terms are paid and are usually between 13-16 weeks
- Program provides support before, during and after the work term
- Employer provides training and supervision
- Student develops learning objectives at start of work term
- Work term is monitored, supported and evaluated by co-op programs
- Student writes a report on work term experience at conclusion of work term (reflective learning)
- Efforts are made to integrate workplace learning back into the classroom



Competency Based Curriculum

1. Tool Kit: “Getting Ready to Work”

- resume and cover letters
- interview preparation
- job finding
- labour market research

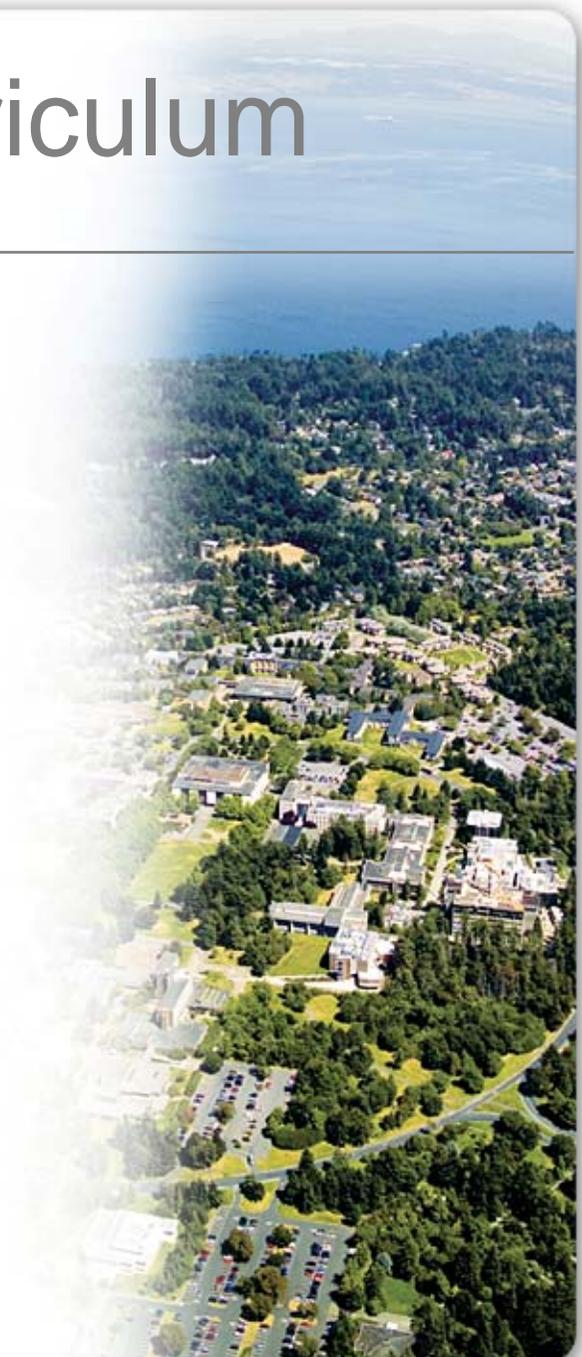
2. Competency Kit: “Make Your Learning Work”

- identifying personal competencies (core, discipline specific and professional)
- setting competency based learning objectives
- self and employer evaluation (exemplary, accomplished, developing, beginning)
- documenting competencies (portfolio)
- articulating competencies

Competency Based Curriculum

3. Journey Kit: Career Pathways

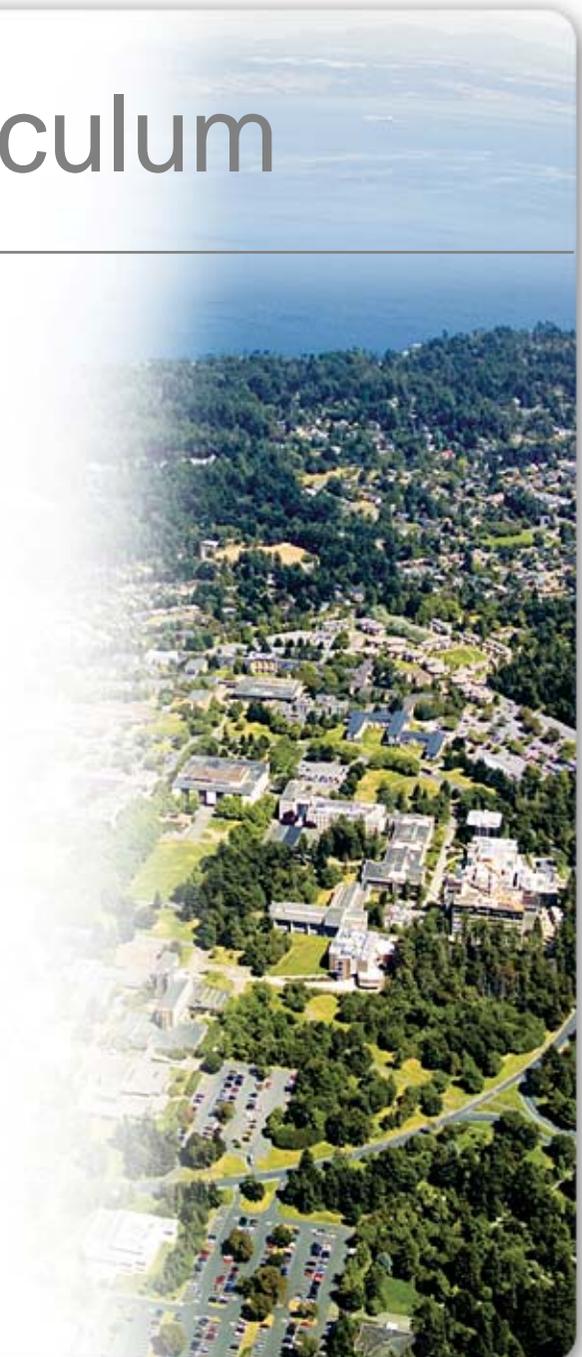
- portfolio management
- career development
- career planning
- career transition



Competency Based Curriculum

Ten Core Competencies

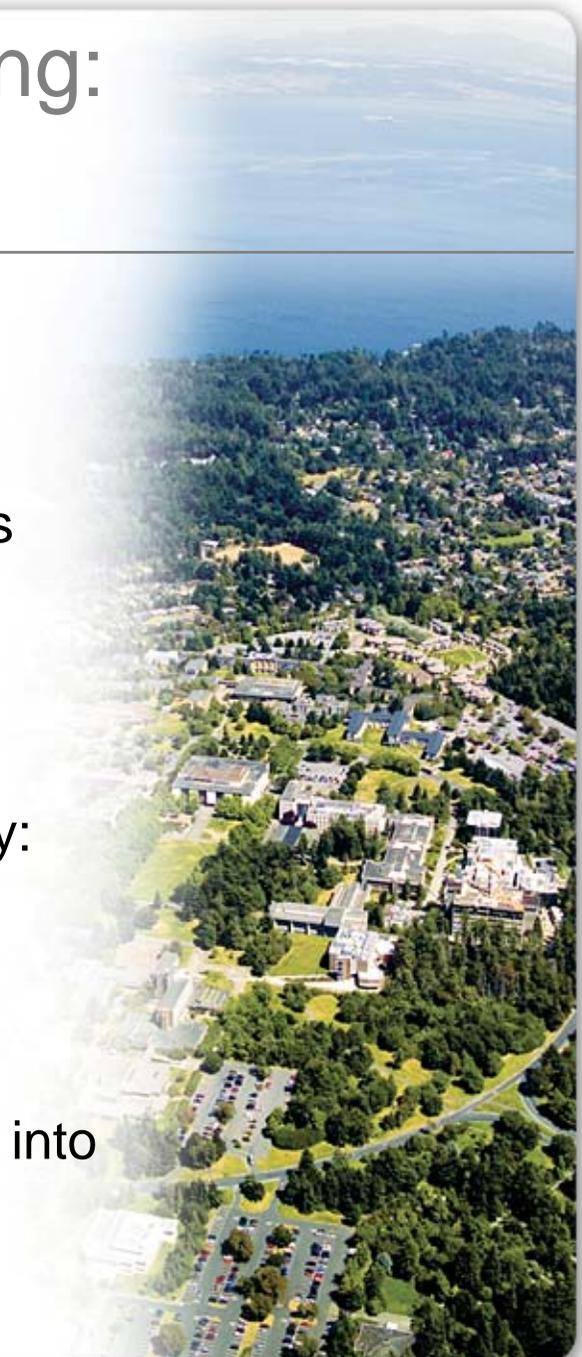
- Personal Management
- Research and Problem Solving
- Communication
- Managing Information
- Project and Task Management
- Teamwork
- Commitment to Quality
- Professional Behavior
- Social Responsibility
- Continuous Learning



Integration of workplace learning: completing the learning cycle

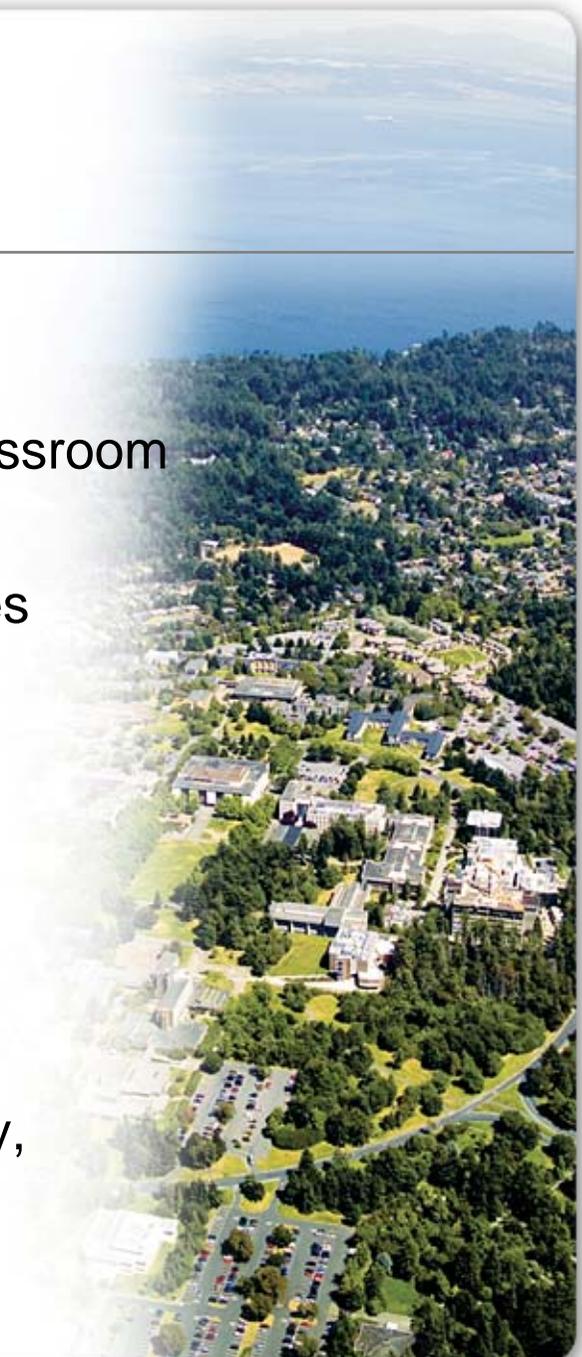
Faculty of Business

- Experiential learning officer
- Online teaching resource site for instructors
- Poster exhibition for senior students
- Examples of integration initiatives by faculty:
 - post questions on Blackboard
 - invite students to blog
- Integration of experiential learning factored into promotion and tenure assessment



Best practices:

- Strong connections to faculty to help bring workplace-based learning back into the classroom
- Strong connection with academic disciplines
- Good relationships with employers
- Skilled co-op professionals
- Co-op processes that reinforce learning as identified by Dewey, Piaget, Kolb, Vygotsky, Mezirow



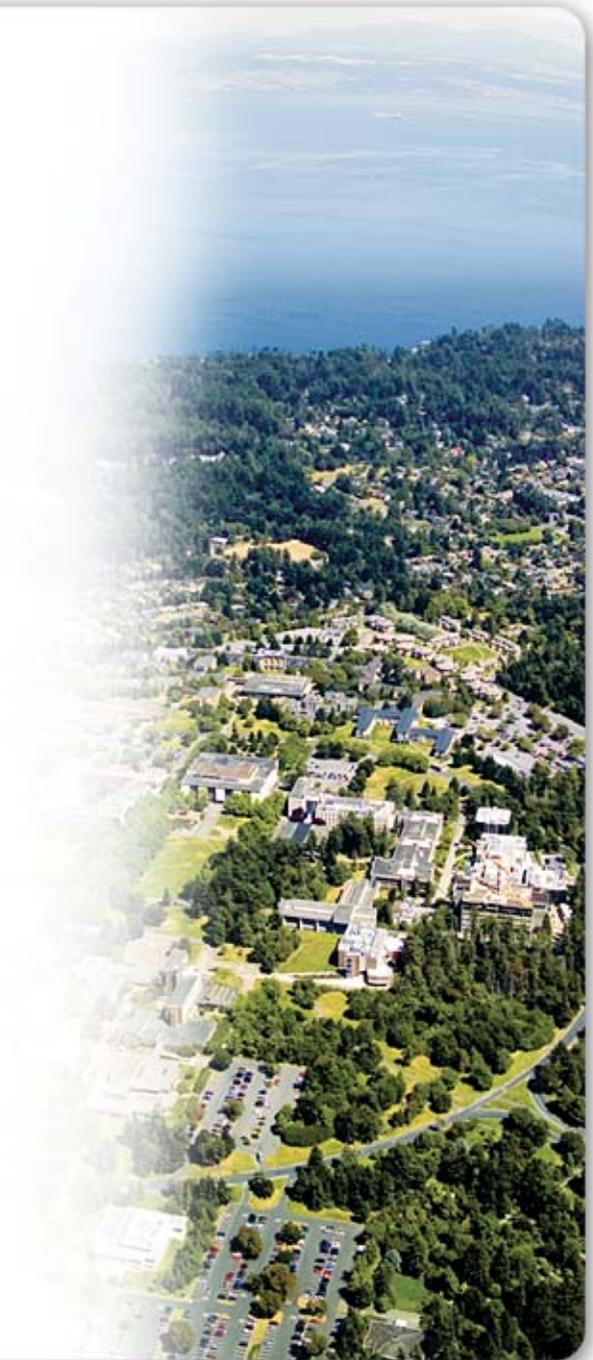
How Could it Matter More:?

- Full integration of workplace learning and academic learning (curriculum, infrastructure)
- Better processes that reinforce learning – incorporating Mezirow’s ideas
- Better linkage with students: as applicants, as new admits, as junior, as senior and as alumni
- Avoid problems of “mis-educative experiences” and “non-educative experiences”
- employers as partners in education
- Further research to support profession and discipline of work integrated learning
- Funding that reflects educational value
- Better collaboration among institutions



Thank you!

Questions?





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University
of Victoria