



Dimensions of health.
Health studies, research and careers.



University
of Victoria



One measure of the success of a society is the health of its people. A commitment to maternal health, the health of children and adolescents, the health of Aboriginal peoples, and the health of the aging members of our society is critical to the sustainability of our communities, our nation and our world. UVic's commitment to education and research in health is both deep and broad. It is noteworthy in its integrated, multidisciplinary approach to health research, health promotion, and health care.

For those students who seek careers in the delivery of health care, UVic provides education across a broad range of health professions. Our faculty are also contributing to our understanding of how social factors and social policies impact health. They are investigating how poverty, homelessness, access to medical and health services, and public policy with respect to mental health, addictions, and disability impact health over the lifespan. Our scholarly community is building healthy communities through health promotion, wellness initiatives, and community education in our local community, throughout the province of BC, across Canada and around the world.

UVic faculty and students are also contributing to breakthroughs in the biological and medical sciences that will impact the prevention and treatment of cancer, genetic disorders, neurological disorders and diseases, and many other medical conditions. They are also contributing in essential ways to understanding the economics and the politics of health care, the development of policies that support principles of social justice, medical ethics, health policy and law, and the availability of secure and healthy sources of food and water.

These are but a few of the areas critical to sustaining the health of communities both here and around the world. As the demographic of our community and our country changes, the strength and indeed the sustainability of our health care system will depend critically on thoughtful, engaged citizens, working hand in hand with experts in health. If you have an interest in advancing health in all its forms, come join our vibrant health education and research community!

Catherine Mateer, PhD

Associate Vice-President Academic Planning

A handwritten signature in white ink, appearing to read 'C. Mateer', written on a dark blue background.



UVic welcomes its first Director of Health Education and Research

I am thrilled to be joining the great team of faculty, students and staff at the University of Victoria as inaugural Director of Health Education and Research. UVic has a wonderful reputation in the health sciences and I look forward to working with the community to extend this fine tradition while responding to new challenges in research and teaching. The goal of health programming at UVic is to contribute to improving the overall health of populations while at the same time addressing inequities in health outcomes. To achieve this end, UVic is committed to creating a challenging and creative learning environment conducive to nurturing the human spirit. I hope you will join us.

Michael Hayes, PhD

Director of Health Education and Research

A handwritten signature in white ink, appearing to read 'M. Hayes', written on a dark blue background.

You hear about health every day

So ask yourself...

- How can our communities support healthy living?
- How does social class, geography and education impact access to health care and services?
- How do we prepare to support the health of our increasingly older population?
- How are new discoveries changing the way we think about illness and disease?
- What does it mean to be healthy?

At UVic you can be part of the future of health in BC, in Canada and in the world. Programs at UVic will provide you with the opportunity to gain skills, knowledge and perspectives that will prepare you to engage in improving health and health care.



Do you see yourself...

As a health professional

a physical education teacher	4
a kinesiologist	4
a nurse	6
a social worker	6
a counsellor or psychologist	5,8
a physician	11

Working in the health care system

in government or public sector management	6,13
in policy and governance	6
in specialized health care services	10

Working with communities

in leisure services or coaching	4
in Aboriginal community counselling	5
in public health	6
in child and youth care	6
in social psychology	8
in social dimensions of health	9,14,15

in Economics and innovation

in biomedical engineering	4
in the development of medical technologies	13
in health economics and business	13

As a research scientist

in rehabilitation	5
in health related education	5
in human development	7
in cognition and brain science	8
in medical physics	10
in electrical engineering	12
in work site health	13
in discipline specific research centres	10

Are you interested in the study of human movement or in physical and health education?

The Faculty of Education offers:

- **Undergraduate programs** in Kinesiology, Recreation and Health Education and Secondary Teacher Education leading to bachelor degrees in Science, Arts and Education
- **Graduate Programs** in applied and research aspects of Kinesiology, Coaching Studies, Leisure Service Administration and Physical Education

The **Kinesiology Program** is designed to allow you to study human movement in the exercise, sport, recreation, and rehabilitation domains and provides an excellent foundation for a career in exercise management in a variety of settings. The degree is an appropriate undergraduate degree to precede study in medicine, physiotherapy, occupational therapy, chiropractic or massage therapy. As a graduate degree, it prepares students to practice in the field and conduct research.

The **Recreation & Health Education Program** is an interdisciplinary program that prepares students to enter the fields of recreation, wellness and health promotion. It provides training and experience in both leadership and administration within the public or not-for-profit sectors.

The five year **Secondary Teacher Education Program (physical education teaching area)** helps students develop the critical skills needed to become leaders and advocates for physical and health and wellness education in our schools. Graduates are equipped to provide high quality programs and to teach youth the importance and benefits of healthy lifestyles.

uvic.ca/phed



LEFT: Tyler Duncan (physical education), took action on his professor's challenge (Dr. Lara Lauzon who teaches EPHE 142 Human Wellness and Potential) to use sport for a greater good. Duncan, seen here with Olympian Silken Laumann (right), rode his bike across Canada last year to raise funds for physical education and spread his message to schools, recreation centres and businesses.



Professors in the Faculty of Education and their research interests

Would you like to help others with a career in counselling?

The Department of Educational Psychology and Leadership Studies (EPLS) offers graduate programs leading to Master of Arts in Counselling Psychology, Master of Education in Counselling or Master of Education in Aboriginal Community Counselling.

uvic.ca/epls

Are you interested in working with Aboriginal communities?

The M.Ed. program in Aboriginal Community Counselling is a collaborative initiative to deliver a graduate counselling program that is relevant to and consistent with the values and traditions of Aboriginal communities. This program will provide you with culturally sensitive education and training to meet the mental health needs of Aboriginal communities. In partnership with the Office of Indigenous Education, and guided by an advisory committee of educators and community members, the Counselling faculty in EPLS developed a community-based delivery model to support students in their successful admission to and completion of the graduate counselling degree. A community Mentorship program provides further support and reinforces traditional knowledge and ways of learning. The program is open to both Aboriginal and non-Aboriginal students.

LEFT: Adrienne Attorp (kinesiology) traveled to San Ramon, Costa Rica, to work for uVolunteer, a company that connects volunteers with projects across the globe. Among other projects, she spent time working at the Cloud Forest School in Monteverde, where she helped teach conservation strategies to children. "Working abroad opened my eyes to different work cultures. It challenged me to adapt my work style and experience something brand new."

Lisa George, Aboriginal Community Counselling student, discusses her practicum with instructor Dr. Honoré France



Dr. P.J. Naylor (left), Assistant Professor, School of Exercise Science, Physical and Health Education and Dr. Joan Wharf Higgins, Professor, EPHE, and Canada Research Chair in Health and Society

Dr. Wharf Higgins' areas of research include the social determinants of community and population health and physical activity; health literacy and healthy community development; and the application of social marketing theory and strategies to facilitate social change. Dr. Naylor's current research is focused on socio-ecological approaches to obesity and chronic disease prevention (focusing mostly on children and youth), building and measuring organizational and community capacity and mobilizing communities for action on health and knowledge exchange (facilitating the adoption and utilization of evidence-based approaches).



Dr. Zehr (left) and lab assistant Allen Lewis evaluate neural activity during a coordinated arm-leg cycling exercise.

Dr. Paul Zehr is a Professor of Kinesiology and Neuroscience in the School of Exercise Science, Physical and Health Education. In addition, he is Head of the Rehabilitation Neuroscience Laboratory and Director of the Centre for Biomedical Research at UVic. Dr. Zehr's desire is to advance neurotrauma research at UVic – to reveal secrets about the nervous system that may one day improve motor function in people who have suffered stroke or spinal cord injury.



Dr. Deborah Begoray, Professor, Department of Curriculum and Instruction

Dr. Begoray is researching health literacy: the ability to access, understand, evaluate and communicate health information in a variety of settings across the life course.



Do you want a professional career that focuses on the health and social well being of children, families or communities?

The Faculty of Human and Social Development is a vibrant collective of academic disciplines and interdisciplinary fields with long-standing interests and existing strengths in offering health-related programming focused on applied and professional practice.

Bachelor degrees in:

- Child and Youth Care
- Nursing
- Social Work
- Health Information Science
- Health and Community Service

Diplomas and Professional Specialization Certificates in:

- Local Government Management
- Public Policy and Governance
- Public Sector Management
- Voluntary and Non-profit Sector Management
- Public Health
- Evaluation

Masters degrees in:

- Child and Youth Care
- Nursing
- Social Work
- Health Information Science
- Public Administration
- Dispute Resolution
- Studies in Policy and Practice
- Joint degree in Nursing and Health Information Science
- Public Health

Doctoral degrees in:

- Nursing
- Public Administration
- Child and Youth Care
- Other Doctoral programs available by special arrangement



LEFT: Catherine Claiter, UVic graduate from the School of Health Information Science, and now Chief Information Officer for the Vancouver Island Health Authority and recent recipient of UVic's Distinguished Alumni Award.



"Someone's mother, sister or daughter"

LEFT: (Left to Right) Dusti Foster, PEERS BC, Social Work professors Jeannine Carriere, Susan Strega, Leslie Brown and research assistants Jeannie Morgan and Caitlin Janzen

This research group will be examining the relationships between survival/street sex workers and their families and how these relationships impact the process of transitioning out of street sex work. The project will work with sex worker community agencies in western Canadian cities that have significant numbers of these workers.

Coming soon . . . prepare to be a professional practitioner in public health

The Faculty of Human and Social Development has developed a new School of Public Health and Social Policy that will offer undergraduate (diploma or bachelor of arts degree in health and community services) and graduate studies (diploma or masters degree in public health).

The undergraduate programs will prepare you for entry-level positions within professional practice environments in health care and community sectors including non-governmental organizations. Graduates will be proficient in providing programmatic planning and administrative support.

Bachelor degree students may select from four areas of focus: Disability Studies, Indigenous Peoples' Health, International Health and Human Development, and Gerontology.

Graduate students can select from four areas of focus: Indigenous Health Studies, Public Health Informatics, Public Health Nursing or Social Policy. You will gain in-depth knowledge of life course determinants (e.g. income inequality, social inclusion, education, food security, housing) as well as a commitment to developing community-based professional practice and research strategies that promote health and social justice. These programs are designed to provide you with accessible, flexible education through primarily online access.



Associate Professor Dr. Charlotte Reading from UVic's Centre for Aboriginal Health Research will teach in the new School of Public Health and Social Policy. Dr. Reading is renowned for her work on the sexual and reproductive health of Aboriginal women. She has published in the areas of Aboriginal health, social determinants of health, cultural competence, cancer among Aboriginal peoples, Aboriginal HIV/AIDS, Aboriginal ethics and research capacity building. Dr. Reading teaches a popular course entitled Healthy Sexuality.



LEFT: BSN student, Michelle Verwey, working with families in her community placement at the James Bay Community Program.

RIGHT: UVic nursing students with members of the Tsawout First Nation. The students participated in a Reciprocal Partnership Model, a program developed by UVic to jointly address health care challenges of Aboriginal communities and increase the number of Aboriginal health care professionals.



Check out UVic's Department of Psychology

It is home to award-winning teachers and world-class researchers working in state-of-the-art facilities. Psychology students learn about the typical development of cognitive, social, and emotional functions and the impact of neurological and neuropsychiatric disorders and disabilities.

As a student, you could be a key contributor to the department's vibrant research community, providing assistance in research laboratories. Psychology is an exciting branch of science and clinical practice where new discoveries make a difference in people's lives.

You can study for a Bachelor of Arts or a Bachelor of Science degree in psychology.

You can also undertake graduate studies leading to a Master of Science or a PhD in the following areas:

- Clinical Psychology
- Neuropsychology
- Cognition and Brain Science
- Life Span Developmental Psychology (childhood through aging)
- Social Psychology



Faculty in the Cognition and Brain Science (CaBS) Program recently secured a Natural Sciences and Engineering Research Council grant to upgrade a magnetic resonance imaging (MRI) machine at Royal Jubilee Hospital.

LEFT: Graduate student Justin Kantner prepares for a brain scan.



LEFT: Dr. Clay Holroyd, UVic's Canada Research Chair in Cognitive Neuroscience, is a psychologist who conducts brain research on how people detect and correct their errors and how they learn from the consequences of their actions. His research is advancing the study and treatment of addiction, attention deficit hyperactivity disorder (ADHD), schizophrenia and many other neuro-cognitive disorders.

In the **Faculty of Social Sciences**, the different social science disciplines (including psychology) examine all aspects of our society and the world we live. They offer a broad array of health related courses.

Anthropology	302	Globalization, Health and the Environment
	312	Introduction to Medical Anthropology
	510H	Selected Topics in Medical Anthropology
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Economics	317	The Economics of Canadian Health Care
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Geography	346	Geography of Environment and Health
	439	Coastal Community Health
	473	Medical Geography
<hr/>		
Sociology	202	Introduction to Social Problems
	285	Health over the Life Course
	305A	Sociological Perspectives on Family Relationships
	382	Human Sexuality
	445	Sociology of Health and Illness
	545	Sociology of Health
	585	Seminar on Aging
<hr/>		
Environmental Studies	421	Ethnobotany: Plants and Human Cultures

Is this new interdisciplinary graduate program for you?

The new **Interdisciplinary Graduate Program – Social Dimensions of Health (SDH)** combines existing strengths at UVic into a program focused specifically on the social determinants of health and illness. The SDH is primarily a research degree which will give students the opportunity to create new knowledge regarding the health impacts of social factors (e.g. poverty, homelessness, access to health care and health care policies).

Students from a wide range of academic disciplines including, but not limited to, social, physical, health and education sciences, law, humanities and public administration may be interested in this new program. The program will also appeal to individuals from the private and government sectors who wish to upgrade their research skills and obtain a graduate degree to support their professional development.

www.socialsciences.uvic.ca/graduate



LEFT: A scientist at UVic's Centre for Addictions Research, a professor of sociology, and 2010 recipient of the BC Community Achievement Award, Dr. Benoit studies the link between social determinants, risk behaviours, health status and access to health care services. Her community-based research with vulnerable populations has helped to improve the lives of those who are outside the mainstream because of the statuses in which they are born, where they live, what they do for a living, or what they require to become healthy and productive.

“ I thank the (BC Community Achievement) awards committee for giving recognition to scholarship aimed at improving the health and well-being of the province's most vulnerable populations. ”

-Dr. Cecilia Benoit

Take a close look at the science of health

New discoveries in biology, biochemistry, microbiology and physics have led to a better understanding of health and disease and to new medical treatments.

UVic's Faculty of Science offers courses and programs in disciplines that are foundational to health research. The Department of Biology participates in interdisciplinary graduate studies in Neuroscience.

Here are a few interesting health related courses from various science departments:

Biochemistry/ Microbiology

- 531** Scientific Writing for Biomedical Research
- 540** Cancer Immunology from Bench to Bedside
- 538** Bacterial Pathogen Alteration of Eukaryotic Host Cell Functions

Biochemistry

- 102** Biochemistry and Human Health
- 300A & B** General Biochemistry I & II

Biology

- 361** Molecular Genetics
 - 401A** Biotechnology
 - 432** Molecular Endocrinology
 - 436 and 536** Human Molecular Genetics
 - 437** DNA Repair, Mutation and Human Health
- ### Chemistry
- 232** Organic Chemistry for Health and Biological Sciences
 - 437** Biological and Medicinal Chemistry

Earth and Ocean Science

- 350** Understanding the World's Oceans
- 365** Climate and Society

Microbiology

- 303** Immunology
- 408** Microbial Pathogenesis

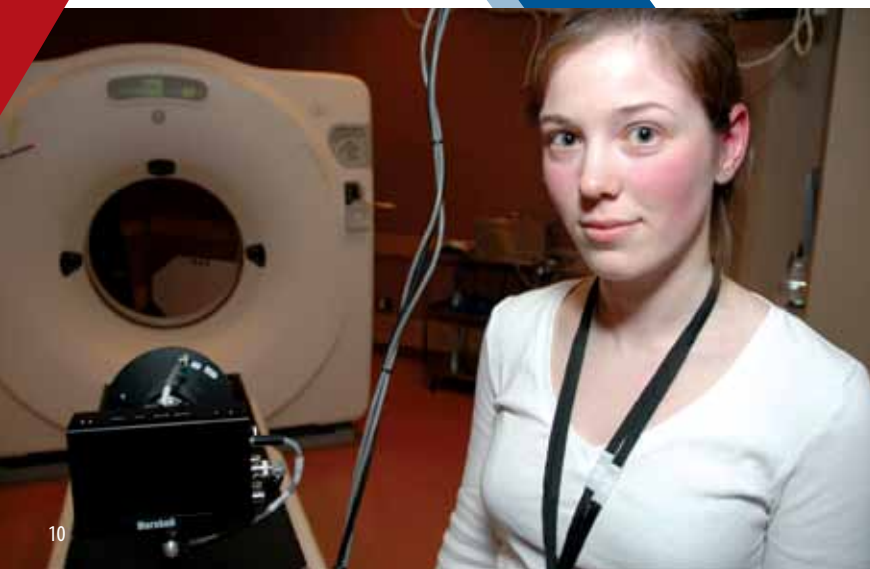
Physics

- 314** Nuclear Physics and Radioactivity
- 432** Medical Physics

Statistics

- 355** Statistical Methods in Biology and Medicine

The Faculty of Graduate Studies offers a Medical Physics Program jointly offered through the University of Victoria Department of Physics and Astronomy and the British Columbia Cancer Agency - Vancouver Island Centre.



LEFT: Ashley Rose (UVic physics student) spent a co-op term working for the BC Cancer Agency, where she assisted with a radiation therapy study.

"I was involved in the testing of new visual feedback equipment that is beginning to be used with breast cancer patients undergoing deep inspiration breath-hold (DIBH) radiation therapy," says Rose. "I learned a lot about the medical physics field, which helped complement what I've been learning in the classroom."

Health Research Centres and Groups

CanAssist | www.canassist.ca

Centre for Aboriginal Health Research | www.cahr.uvic.ca

Centre for Addictions Research – BC | www.carbc.ca

Centre on Aging | www.coag.uvic.ca

Centre for Biomedical Research | cbr.uvic.ca

Centre for Youth and Society | www.youth.society.uvic.ca

Population Research Group | www.prg.uvic.ca

UVic Genome BC Proteomics Centre | www.proteincentre.com

Division of Medical Sciences

The Division of Medical Sciences is a newly established and rapidly growing program at the University of Victoria. The Division is expanding UVic's involvement in interdisciplinary research in areas which will address societal health needs and promote scholarship and innovation in the medical sciences. Course offerings include an undergraduate course in pharmacology and graduate courses in neuroscience.

imp.uvic.ca/research/index.php

The Island Medical Program

The **UBC Faculty of Medicine**, in collaboration with UVic, is educating doctors on Vancouver Island as part of an innovative plan to increase the number of physicians in B.C. and encourage them to practise in less populous areas of the province. IMP students are UBC Faculty of Medicine students who spend the first four months of their undergraduate medical program at UBC and then move to Victoria to complete their degree requirements. During the more clinical third and fourth years of the program, students have the opportunity to spend a significant amount of time in hospital and community-based clinical settings within the Vancouver Island Health Authority.

imp.uvic.ca



LEFT: Joana Gil-Mohapel, a Post-Doc student, studies how the generation of new neurons in adults is affected by neurodegenerative conditions such as Huntington's disease as well as developmental disorders such as fetal alcohol syndrome.

RIGHT: IMP students with a newborn in the special care nursery at Victoria General Hospital.



How do engineers get involved in health?

Through options and specializations

The Faculty of Engineering's combined program options are unique in Canada. Customize your degree by adding a specialization, option, minor, or interdisciplinary combined program. UVic Engineering lets you focus on your areas of interest to make your degree unique.

Biomedical Engineering Option: Computer or Electrical Engineering

This is one of the fastest growing engineering fields. Imagine a career in Bioinstrumentation and Biosensors, Biomedical Imaging, Biosignal Processing, or Design of Artificial Organs, with ample career opportunities within industry, academia, and government.

www.ece.uvic.ca

Bioinformatics Option:

Computer science major with a bioinformatics option

This option is for students who want to focus their computer science skills in the area of Bioinformatics, developing the interdisciplinary skills essential for a career in biotechnology and pharmaceutical work, genome centers and academic departments, health sciences, software design or theoretical research.

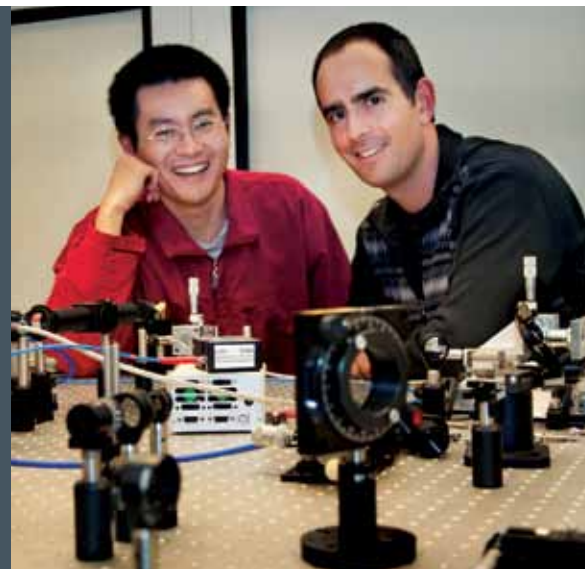
www.csc.uvic.ca/Focus/29

How about a combined degree?

The Combined Major in Computer Science and Health Information Science merges studies in the organization of health care systems and specific issues involving health informatics with the fundamentals of software engineering, operating systems, programming languages, and computer hardware.



LEFT: Carl Spani, a UVic graduate from the Electrical Engineering program (Electronic Specialization with Mechatronics and Embedded Systems Option), is currently the Senior Electrical Design Specialist for CanAssist. Carl developed the CanPlay podWiz which allows people with very challenging disabilities to control Apple's popular iPod technology with a single switch.



LEFT: PhD students Yuanjie Pang (left) with Dr. Reuven Gordon, Associate Professor, Department of Electrical and Computer Engineering.

A Canada -Spain research collaboration between University of Victoria engineering professor Dr. Reuven Gordon and Institute of Photonic Sciences (ICFO) group leader Dr. Romain Quidant has developed a new method to gently trap, manipulate and study tiny, active objects as miniscule as viruses without inflicting any damage. "This means, for the first time, it may be possible to trap and study viruses..." says Gordon.

Economics and Innovations in Health

Between 2008 and 2010, 39 Faculty of Business students participated in 48 health related co-op placements. The placements ranged from private sector businesses that retail health and safety equipment to provincial and municipal government health agencies to not for profit health and support organizations.

Angela Downey (below) is an Associate Professor in the Faculty of Business and has been researching worksite health promotion for nearly two decades. Dr. Downey is also a health economist - examining the financial implications of changes in health treatments and service delivery models.

Dr. Downey's research topics:

- worksite health promotion research
- economic analysis of change in the health care system
- understanding the economic impact of whole system change in the health care system
- the role of information technology in chronic disease education



RIGHT: BCom student Carly Murray (right) at the Kids Cancer Care Foundation of Alberta—a charitable organization that helps build bridges of hope and pillars of support for families fighting childhood cancer.

Reia Ly at the BC Ministry of Health Services, Health System Planning. The Division is responsible for supporting Government in setting the strategic direction, objectives and initiatives to provide a quality, sustainable, high performing publicly funded BC health system that delivers clinical, operational and service excellence.



Ranjit Mattu at StemCell Technologies Inc.—a life sciences company dedicated to providing a range of products that support innovative research in hematology, immunology, cancer research, developmental biology, and many other areas of life science research.



Humanities

The **Faculty of Humanities**, in addition to participating in the Social Dimensions of Health Program, regularly offers an array of health related courses including the history of medicine and science, literature and medicine, and the social dimensions of health (trauma studies, gender studies, family studies, bioethics and language revitalization).

Department of History

HIST 260 History of Science

HIST 523 History of Technology

Department of Linguistics

LING 370A-B Psycholinguistics

LING 395 Sociolinguistics

LING 509 Sociolinguistics

LING 570 Psycholinguistics

LING 577 Issues in Minority Language Maintenance

ASL 100 A-B American Sign Language I & II

Department of Philosophy

PHIL 431 Seminar in Biomedical Ethics

PHIL 520 History and Philosophy of Science

PHIL 521 Topic in Philosophy of Science

Department of Women's Studies

WS 205 Women, Food and Culture

WS 311 Sex Work, Trafficking and Human Rights

WS 316 Gender and International Development

WS 337 The Body



The Department of Philosophy offers a **Minor in Applied Ethics**, jointly with the Faculty of Human and Social Development.

web.uvic.ca/calendar2009/FACS/InPr/MiApE.html

UVic is home to the interdisciplinary History of Medicine research collective which has a goal of joining ideas and work that pertain to history of medicine and to the definition of the discipline. The collective welcomes students, professors, researchers and members of the community. It defines itself first as a study group which coordinates existing work at and around UVic in the History of Medicine, including presentations and debates and an annual symposium.

web.uvic.ca/~histmed

How interdisciplinary is the study of health?

Consider a research project with investigators from psychology, geography and physical education resulting in an Applied Theatre Project presented in a broad array of community venues.

The Applied Theatre Program, in the Faculty of Fine Arts, is an exciting new development in theatre and drama studies. It is defined as the use of theatre for extra-theatrical purposes, where extra theatrical refers to education, social change and community-building. The Applied Theatre specialization provides a theoretical and practical foundation to students interested in applying theatre to teaching; cultural, recreational and community planning; historic and environmental sites; museums; social and correctional services; and, healing and health agencies.

finearts.uvic.ca/theatre/specialties/applied_theatre

No Particular Place to Go, an Applied Theatre Project production, toured locally in 2009 in community and seniors' centres around the region. The play affected audiences old and young.

The research project was designed to examine:

- the thoughts and beliefs about older driver safety held by different groups and,
- how observation and discussion about a theatre piece on older driver safety changes the thoughts and beliefs of the audience participants.

One of the results was a play that reflected the thoughts and beliefs about older driver safety gathered from focus groups, key informants, and the existing literature. The focus groups were conducted in Victoria, Nanaimo, Parksville and Courtenay, with seniors and their families, and others interested in the topic (e.g., health care professionals, police, and policy makers). A play was devised based on this information and performed in each of the communities. Shift in audience beliefs was measured within a social science framework.

This research is an example of the types of interdisciplinary research undertaken at UVic's Centre on Aging.



WEBSITES

Faculty of Business
www.business.uvic.ca

Faculty of Education
www.educ.uvic.ca

Faculty of Engineering
www.uvic.ca/engineering

Faculty of Fine Arts
www.finearts.uvic.ca

Faculty of Graduate Studies
www.uvic.ca/gradstudies

Faculty of Humanities
web.uvic.ca/humanities

Faculty of Human and Social Development
www.hsd.uvic.ca

Faculty of Law
www.law.uvic.ca

Division of Medical Sciences
www.imp.uvic.ca

Faculty of Science
web.uvic.ca/sciweb

Faculty of Social Sciences
www.socialsciences.uvic.ca



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of Victoria**

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