

Undergraduate Research Excellence Awards 2011



UNIVERSITY
OF THE FRASER VALLEY

Welcome to the 2011 UFV

Undergraduate Research Excellence Awards Presentation

Tonight the University of the Fraser Valley is proud to present
26 students with awards totaling \$18,000.

These students were nominated by faculty
based on exceptional research work, either as part of the UFV
work study program, as research assistants, or for an
outstanding project as part of a course.

With nearly 16,000 students attending UFV this year,
these awards represent only a small fraction of the research and
scholarly activities in which students are involved.

**Congratulations to all the students who have worked so diligently to
produce award-winning research projects.**

Special thanks to the family and friends who support our students
with funding, encouragement and late-night pizza.
Your contribution is immeasurable!



Program

Host

Yvon Dandurand, Associate Vice President
Research & Graduate Studies

Welcome

Brian Minter, UFV Chancellor

Opening Remarks

Rod Thomson, Chair, UFV Board of Governors

Dinner Buffet

President's Remarks

Dr. Mark Evered, UFV President and Vice Chancellor

Student Speaker

Sheetal Deo

Awards Presentations

Dr. Eric Davis, Provost & Vice President Academic

Dr. Jacqueline Nolte, Acting Dean, Faculty of Arts

Dr. Rosetta Khalideen, Dean, Faculty of Professional Studies

Ora Steyn, Acting Dean, Faculty of Science

Brad Whittaker, Director, Research Services & Industry Liaison

Acknowledgement of Other Awards & Closing Remarks

National Awards

UFV is committed to providing the best undergraduate education in Canada and seeks to engage students actively in their education through a high level of interaction with faculty members and provide opportunities for practical experience, research, problem-solving and creative work.

These local and international opportunities give students a definite edge as they prepare for their graduate studies and careers.

We are pleased to recognize some of the students who have received prestigious awards at the national level.

Natural Sciences and Engineering Research Council (NSERC) Alexander Graham Bell Canada Graduate Scholarships

2011 Recipients - \$17,500

<i>Student researcher</i>	<i>Program</i>	<i>Faculty researcher</i>
Heather Martens	Chemistry	Dr. Noham Weinberg
Justine Cullen	Geography	Dr. Olav Lian

National Awards

NSERC Undergraduate Student Research Award

2011 Recipients - \$4,500

<i>Student researcher</i>	<i>Program</i>	<i>Faculty researcher</i>
Heather Martens	Chemistry	Dr. Noham Weinberg
Brandon Yanciw	Chemistry	Dr. Noham Weinberg
Rachel Chapman	Geography	Dr. Olav Lian
Justine Cullen	Geography	Dr. Olav Lian
Matthew Wiersma	Mathematics & Statistics	Dr. Erik Talvila
Ryan Berg	Physics	Dr. Derek Harnett

UFV Student Awards

Each year UFV holds a research presentation and competition on Student Research Day. More than 50 UFV students displayed amazing posters and 22 students wowed us with their fast-paced microlecture presentations at the event.

Top poster prize winners for 2011 were:

<i>Student</i>	<i>Subject / Faculty</i>	<i>Award</i>
Jenna Peters	Chemistry Dr. David Fenske	VP Academic & Provost
Corrinne Dickson	Biology Dr. Anthony Stea	Dean of Science
Nicole Joseph	Geography Dr. Ken Brealey	Associate VP, Research & Graduate Studies
Kees Vanleeuwen	Geography Dr. John Belec	Dean of Arts
Justine Cullen	Geography Dr. Olav Lian	Luminescence Lab

See www.ufv.ca/research/Research_News_and_Events/microlectureseries to view the presentations.



URE Award Recipients

Faculty of Arts

Susan Naja	Anthropology
Iuliana Czeck	Criminology & Criminal Justice
Breanna Guy	Criminology & Criminal Justice
Courtenay Landsiedel	Economics
Spencer Landsiedel	Economics
William Brooke	English
Emily Helmer	Geography
Lee van Ardenne	Geography
Kelsey Siemens	History
Amanpreet Kaur Dhani	Indo Canadian Studies
Angela Willmott	Media Studies
Sandeep Bhandal	Philosophy
Katie Schilt	Political Science
Alexander Marion	Psychology
Nastasha Mol	Visual Arts
Anna Williams	Visual Arts

URE Award Recipients

Faculty of Professional Studies

Diane Angus	Business Administration
Adarsh Chandran	Business Administration
Varun Cheviri Kunhambu	Business Administration
Alissa Neumann	Business Administration
Jayne Redekop	Social Work & Human Services

Faculty of Science

Corrinne Dickson	Biology
Jenna Peters	Chemistry
Jacob Spooner	Chemistry
Alexandra Angeard	Kinesiology & Physical Education

Industry Liaison Award

Heather Martens	Gentech Developments Limited
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Anthropology

Susan Naja

“Shinto Kami no Michi is the Indigenous faith of Japan. For two years I made home in a traditional wooden Japanese house beside a monastery on Shikoku, the Island of Temples. The level of layered cultural symbolism within the land and culture leaves me aghast in wonderment of the depth of the Japanese Self.

I am incredibly grateful to share in the honour of this award with Professor Christine Elsey. Her guidance and direction during the essay writing process crystallized key anthropological ideas within the text. Professor Elsey's highly visible dedication and passion to anthropology, the intellectual nature of her class lectures and personal mentorship are deeply appreciated.”

Faculty Supervisor: Christine Elsey
Program Head: Stephen Piper

Award: \$1,000

Japanese Toudo Matsuri Enduring Poetic Rituals – Society of Appreciation

The concepts presented in this documentary are a condensation of two essays with theses which surround the anthropological idea of the importance of sense of place to the cultural construction of Self. Through the ethnographic study of *Toudo Matsuri* (Festival), it is revealed that *Matsuri* is the essential form of Shinto spiritual expression and socialization. The socializing system of Japanese Shinto *Matsuri* is examined as a central means with respect to the care of the individual, society and the natural world. This rich history of Shinto and Matsuri tradition is the primordial cultural well that the Japanese draw from in times of need. Japan demonstrates to the world time and again a resilience and grace in which they undertake to rebuild their lives anew.

To view the film project, visit <http://vimeo.com/22882917>

Criminology & Criminal Justice

Iuliana Czeck & Breanna Guy

Julie notes, “From a young age issues of social justice captured my attention. After high school I believed that the Criminology program at UFV would complement this passion. Once again I am standing at a crossroad with the world at my fingertips. I hope to continue my education with a combination of psychology and human rights and one day work for an international organization such as the United Nations or Amnesty International as well as teach at the university level.

Since **Breanna's** involvement in the Juvenile Crime Prevention Project in Vietnam and completing her Bachelor's degree in Criminology, she has aligned her skills in research with a keen interest in human rights and law in underdeveloped countries. In the near future, she plans to continue her education contributing to research, and developing this strength into a career in human rights law.

Faculty Supervisor: Terry Waterhouse
Program Head: Irwin Cohen

Award: \$500 each

Juvenile Crime Prevention and Reintegration Project - Vietnam

Over the last three years, Plan Vietnam has implemented a juvenile crime prevention and reintegration project in reform schools in response to the community's over-reliance on detention, mainly in reform schools, in response to youth crime. We conducted a developmental assessment that used a series of consultations with the project's main stakeholders, partners, executing agencies, in order to understand and document the experience accumulated as a result of the project, identify some of the lessons to be drawn from that experience, and sketch out a path towards further progress in achieving the objectives of the interventions. Our results indicated many positive outcomes including changed attitudes of the community and reform school officials, more reintegrative and preventative practices (such as vocational training and coping skills for the youth), more training for reform school teachers to provide psychological support to the youth, and raising awareness in the community about the issues that incarcerated youth face upon their release.

Economics

Courtenay Landsiedel & Spencer Landsiedel

Spencer is graduating from UFV in June, earning a Bachelor of Business Administration with Honours. He chose UFV because of the small class sizes and its excellent reputation for preparing students for the business world. Spencer participated on the UFV Varsity Rowing Team for three years, competing at two Canadian University National Rowing Championships.

Courtenay also graduates in June with a Bachelor of Science, majoring in Mathematics with a minor in Economics. She enjoyed every aspect of academics at UFV, from the great professors and small classes to the volunteer opportunities. She competed as part of the UFV Varsity Rowing Team since 2008, and qualified for Team BC this past September.

Faculty Supervisor & Program Head: Vladimir Dvoracek Award: \$500 each

Capital Accumulation and the Financial Crisis

This paper is an examination of the 2008 global financial crisis from a Marxian perspective, using principles from Karl Marx's treatise on political economy, *Capital*. Our thesis is that the concepts of overproduction, financialization, and the falling rate of profit were the primary instigators of the financial crisis. To see the effect of the law of the tendency of the rate of profit to fall (LTRPF), we present evidence from a study by Smith and Taylor (1996) using Statistics Canada figures to measure the Canadian economy from 1947 to 1991. We also analyze the capitalist system of borrowing and lending that supports the process of financialization, using Marx's theory of interest-bearing capital (IBC).

Our results demonstrate that both the LTRPF and the concept of financialization show that capitalism is inherently unstable and prone to crises. We recognize that the problems of capitalism, if allowed to expand unencumbered, create economic instability and restrict the maximization of social welfare. Thus, we recommend a hybrid economic system, combining aspects of both socialism and capitalism. We hypothesize that the severity of any crisis in such a system would not be as great as the financial crisis.

English

William Brooke

William's project began with a deep interest in the historical differences between abstract and pragmatic modes of rationality. The excellent student-to-teacher ratio at UFV guaranteed that William was able to find an excellent quantity and quality of faculty support for his interests and research. William's historical study of differences in rationality revealed some new conclusions of value to contemporary scholars of logic, rationality, rhetoric, and argumentation. Two weeks ago, he presented this research at the Ontario Society for the Study of Argumentation conference in Windsor. Once finished at UFV, William plans to pursue degrees in ethics and law, and work as an ethics consultant.

Faculty Supervisor: Nadeane Trowse

Award: \$1,000

Program Head: John Carroll

The Formal Failure and Social Success of Logic

Although the projects of the heyday of formal logic (1879-1931) are often regarded as failures (Hacking, 1999), social and historical recontextualization provide a compelling reason to view them as successes.

By viewing the project of formal logic in light of social motivations and applications, a narrow perception of failure is replaced by a more informed picture of success in which the considered lack of a perfect logical language is able to perform positive functions in situations of intra- and inter-cultural argumentation and dispute resolution.

The results of this project provide a positive view of formal logic as a success while simultaneously reaffirming the social and contextual concerns of argumentation theorists, pragma-dialecticians, and rhetoricians.

Indo Canadian Studies

Amanpreet Kaur Dhani

Amanpreet is a fourth year student in the Business Administration program at UFV and has been working in the Centre for Indo Canadian Studies on part of a comprehensive 100 Year South Asian History project. Her supervisors note that she has shown great resourcefulness, excellent research skills, much dedication to the task at hand and a passion for the work.

Supervisors: Satwinder Bains (Director, CICS) Award: \$1,000
Sharanjit Sandhra

A History of South Asian Migration to Canada: Timeline

This project has undertaken to interview pioneers (or their descendants) in order to record oral histories that have not previously been recorded. This project has been breaking down the barriers that exist in Canadian history that is largely silent on the contributions, trials and tribulations of immigrants from India at the turn of the last century.

Amanpreet has created a timeline of the historical moments in the history of Indian immigrants. These junctures proved to be of great significance for the immigrants in their fight for equality and justice. The research she undertook has been painstakingly crafted from documentation and interviews that the Centre has been collecting for the last four years.

For Indo Canadian Studies this work is ground-breaking as this historical record has hitherto been unknown and unrecorded in any comprehensive manner. This work will help the Centre in building an archival record much needed for our community.

Media Studies

Angela Willmott

Angela Willmott recently completed her degree at UFV with a major in Sociology and a minor in Media and Communication Studies. She was accepted into the graduate program at Queen's University where she aspires to complete her Master's degree in Sociology. The inspiration to conduct research on the Chatroulette website stems from an interest in how individuals create online identities and what motivates the behaviours found on the site.

Faculty Supervisor: Eric Spalding Award: \$1,000
Program Head: Stephen Piper

'Next' to you: A qualitative analysis of Chatroulette

Chatroulette is an online social network that allows users from around the world to interact with each other using voice, audio and text. The purpose of this study is to explore the behaviours of individuals who use Chatroulette as well as their motivations for participating on the website.

Two qualitative methods were used to obtain information for this study, namely one-on-one interviews and fieldwork. From the data collected there emerged three major areas of inquiry: motives for usage, sexual behavior and portrayal of self. Research conducted by Griffin (2001) reports that the online forum can provide individuals with a safe way to experiment with various facets of their identity including sexuality. In this regard, online users may find validation and support from others on chat sites that can encourage them to act out fantasies or behavior that they would normally feel too stigmatized to engage in.

Research on Internet-based chat groups also allows users to become more conscious of the effects that online forums have on their behavior, potentially making them more aware participants in their online interactions. Also, a greater understanding of why users feel compelled to behave in specific ways on Chatroulette could lead to an increased awareness of the social norms that restrict these types of behavior in users' daily lives.

Philosophy

Sandeep Bhandal

Sandeep is 21 years old and has lived in the city of Abbotsford all of her life. This year, she has completed a Bachelor of Arts degree, with a major in Psychology, and an extended minor in Criminology. Her educational goal from here is to obtain a Master's in Counselling Psychology, specifically in the field of clinical child counselling. Writing this paper, with the support and feedback from her teacher Dr. Raabe, has broadened her understanding of how vital a role children have in their families.

Faculty Supervisor: Peter Raabe
Program Head: Hamish Telford

Award: \$1,000

What Happens When a Child Must Care for a Mentally Ill Parent?

Parental mental health is not a new area of concern, but the impact it can have on a child's emotional, social, and physical development is what was looked at more closely in this study. This project was conducted in a three part literature review which focused on identifying the barriers children face when dealing with parental mental illness, the negative role stigma has on children's lives, and the different solutions that need to be implemented so all citizens of the community, including law officials, can understand what needs to be done to help lessen the burden and stress many children face from parental mental illness.

The literature review revealed that children need to be included in the resolution and support process. Many children are being ignored or discriminated against, which from a philosophical perspective is both unethical and immoral. Providing increased training for mental health professionals, and collaborating between different service agencies also needs to be considered. Any solution that is implemented needs to be considered on a case by case basis, as every family has different values and beliefs about the role of young caregivers.

Political Science

Katie Schilt

"I am very interested in law and government policy and I will be pursuing undergraduate studies when I leave UFV. BC politics has always been an interest of mine and I am thankful that I had the opportunity to take a class with that focus. It was a rewarding experience to do research on the HST since it has continued to be a central issue in BC politics."

Faculty Supervisor & Program Head: Hamish Telford Award: \$1,000

The Controversial Harmonized Sales Tax in BC

This paper investigates the introduction of the Harmonized Sales Tax in BC and discusses the reasons why the HST has been a very contentious issue in this region of Canada. Analyzing the HST enabled Katie to demonstrate the political issues surrounding taxation and highlight the polarization of the populous in BC. Essentially, the HST is so controversial because it has exasperated the urban/rural tensions and business/labour tensions that have been a part of the political landscape in BC for years. It has been easy for misconceptions about the HST to spread with the onslaught of class, regional and ideological divides being used to encourage fervent debate over the tax. In addition, the populist legislation in BC, the *Recall and Initiative Act*, does not exist in other regions of Canada and has provided the BC public with an avenue to voice their concerns over this unpopular government policy.

Katie's research explains why the HST is a solid tax policy that will benefit the people and economy of BC. The Liberal government was showing its agenda for fiscal prudence when they agreed to the harmonized tax. However, they made a political blunder by not engaging the public and interest groups for support. The public of BC did not feel that they were consulted about the new tax and felt that the HST was another example of Gordon Campbell abusing his executive authority. BC's polarized and populist political culture created a fascinating setting for the introduction of a new tax policy.

Psychology

Alexander Marion

"I have spent the past five years studying Psychology at UFV. Now completing my honours thesis as the first major step, I look forward to continue working toward my goal of earning my PhD in research psychology. I first became interested in the field of social exclusion when I gave a presentation on the biological mechanisms involved in exclusion for a course in perception. Pursuing my education first at UFV has given me the opportunity to work closely with instructors, whom I have received invaluable guidance from and formed valuable professional relationships with."

Faculty Supervisor: Andrea Hughes
Program Head: Wayne Podrouzek

Award: \$1,000

Motivational Differences and Attribution Style: Being Rejected Versus Being Ignored

This study was aimed at measuring individuals' social judgments to various facial expressions in response to being socially excluded. Using various other types of studies, the experiment was designed to include two different types of exclusion, being rejected and being ignored, and used smiling and frowning faces with a list of positive and negative attributes to measure judgments. Based on the principles of prevention and promotion motivation, Alex hypothesized that rejected participants would select more negative attributes for frowning faces, while ignored participants would select more positive attributes for smiling faces.

The results did not support these hypotheses. Unexpected significances were found for the effects of expression on judgments, but not condition. The error terms show that there was much greater variability in the manipulated conditions than there was in the control condition. These unexpected results could mean that some participants were manipulated successfully, while others were not, or that the attribution measure was too broad. Further analyses using the data already collected are planned to test for these possibilities, as well as follow-up studies to remedy the potential confounds.

Visual Arts

Nastasha Mol & Anna Williams

After finishing her Bachelor of Fine Arts, **Nastasha** intends to pursue a Master of Fine Arts degree. She then hopes to work as an instructor at a university teaching in the studio setting. **Anna** intends to finish her Bachelor of Fine Arts at UFV and then apply to graduate school to study architecture. Together, they intend to start a props building business with a leading edge in the donkey building field. They are interested in sculpture as a visual language, an alternate way of communicating with their audience. UFV was their choice because of the small class sizes that allow students maximum support and interaction with staff and faculty.

Faculty Supervisor: David Floren
Program Head: Tetsuomi Anzai

Award: \$500 each

If it were possible that solid, figured, moveable substances may exist without the mind, corresponding to the ideas we have of bodies, how is it possible for us to know this?

This highly evolved research study brought together both a complex level of conceptual development, and a technical range of abilities rarely seen in undergraduate work. Working together collaboratively with a complementary and heuristic approach to tasks demanded by context, Nastasha and Anna have produced a singularly magnificent result.

The background for the work is a philosophical treatise by George Berkeley (1685-1753) whose ideas on spiritual substance framed the work relative to the theme for the exhibition: AETHER. This rich counterpoint is borne out in the work itself as being the product of a donkey-like figure seated in the severed cross section of a lapstrake-made tender. Disabled in its course, the boat itself offers a further example of the dedication toward this body of research. Kerfing, laminating, and lapstrake construction methods have been learned and applied for this instance of asserting a genuine context. The careful construction and conceptual alignment of form and philosophy declare this work a triumph.

Business Administration

**Diane Angus, Adarsh Chandran,
Varun Kunhambu & Alissa Neumann**

Diane: “I am in my fourth year of the Bachelor of Business Administration degree in the accounting option. I choose UFV as it is close to home and because of the small class sizes.”

Adarsh: “I am an international student from India in the final semester of the Business Administration degree. I have also completed a Bachelor of Commerce in India. In the future I would definitely want to be in the field of Banking and grow up one day holding the top position in a leading bank here in Canada. Moreover, I want to make my parents happy and make them feel proud whenever they talk about me. As far as my educational plan is concerned, I want to pursue my MBA in finance.”

Varun: “I am a credit transfer student from India with an aim of becoming a successful accountant for a well-known company. I finished my Business Management education in India and always wished to go abroad to get better education and exposure. I chose UFV because some of my friends had been here and recommended it. And I am happy that I made the right decision. I plan to graduate next year and then start preparing for CGA. As given in the vision of UFV, I like the way the lecturers impart education to us and make us job ready by the time we graduate.”

Alissa: “I am a fourth year student in the BBA program at UFV concentrating in Human Resources Management. Because of my interest in human resources, the topic of employee turnover in entry level positions was ideal and allowed me to gain a deeper understanding of what motivates people to stay or leave their position. UFV appealed to me because of the small class sizes that enable students to become engaged in the topic and the instructors who have a working knowledge of what they are teaching. I plan to graduate in the spring of 2012 and complete my CHRP designation.”

Faculty Supervisor: Raymond Leung
Program Head: Mark Breedveld

Award: \$250 each

Employee Turnover: How can employers reduce turnover in entry level positions?

This academic research paper was intended to expand the understanding of employee turnover in the fast food industry. Our initial interest in this topic was sparked by the observation of substantial employee turnover over the past few months at these two locations. With this in mind we decided to conduct research on the problem.

This paper critically examines the various reasons an employee in the fast food industry, specifically Burger King, decides to leave the company. In order to collect the data, we used the direct survey method and personally distributed the survey questions to employees of the Burger King locations on South Fraser Way and Whatcom Road.

We began with the assumption that employee turnover is negatively related to job satisfaction, work environment, and recognition for a job well done, which formed the hypotheses for this research. Once the information was collected, it was then analyzed and interpreted using Pearson’s correlation coefficient. It became apparent that employee turnover in Burger King was directly related to the hypotheses we stated but we also found that compensation, and job and employee skill mismatch also lead to employee turnover.

- Applauded alumna Lisa Kelly as she received a prestigious Trudeau Foundation scholarship, worth \$180,000 over three years, to help fund her doctoral studies in law at Harvard
- Were wowed by third-year geography student Justine Cullen when she won the Geological Society of America's 2010 Farouk El-Baz student award
- Watched with admiration as alumna Lisa Shepherd had her Metis-inspired Coke bottle design chosen for the Coca Cola art bottle competition
- Recognized Dr. Glen Baier as our Teaching Excellence award winner and Tracey Vanderaegen Jones as our distinguished alumna
- Conferred honorary degrees on Frank Malloway, Wally Oppal, Tantoo Cardinal, and Catherine Marcellus.
- Received almost \$1 million in donations from our generous community of donors.
- Hosted science camps, science fairs, numerous guest speakers, conferences, microlecture lunch hours, and a university lecture series featuring noted UFV faculty members
- Continued to support numerous faculty research initiatives
- Presented our annual season of theatre and a director's festival
- Launched Skookum, our new university magazine
- Participated in national university-level athletics in basketball, soccer and rowing, as well as at the college level in volleyball and golf.
- Had students, faculty, alumni, and staff involved with the Vancouver 2010 Olympic Winter Games as researchers, consultants, and volunteers.

Check our web site for more exciting news & events. www.ufv.ca

*Thank you for joining us
for this special recognition of student achievements!*



The University of the Fraser Valley (UFV) is a comprehensive, regional post-secondary institution that enrolls nearly 16,000 students per year and is larger than half the universities in Canada. Nestled in the beautiful Fraser Valley just east of Vancouver, British Columbia, UFV has campuses in Abbotsford, Chilliwack, and Mission, and regional centres in Hope and Agassiz.

UFV focuses on teaching excellence, with the highest priorities for research being to support teaching and to address local issues and regional needs. Faculty, staff, and students are engaged in a significant number of research projects that both enrich the environment of the university and contribute to the development of the Fraser Valley region.

