

THE UNIVERSITY OF
WINNIPEG



Special Thanks:

Judges:

Dr. Mavis Reimer
Dr. Jeff Martin
Dr. Julie Pelletier
Dr. Sheela Ramanna

Keynote Speaker:

Dr. James Currie

Opening Greetings:

Dr. Neil Besner - *Vice-President (Academic)*

Moderators:

Phil Grayson Allyson Menzies
Kirstian Lezubski Alain Beaudry

Catering:

Diversity Foods & The University of Winnipeg Faculty & Staff Club

Thank you to all participants and guests, we look forward to seeing you again next year!

For any questions about this event, please contact Deanna England, Graduate Studies Officer at 204-786-9093 or d.England@uwinnipeg.ca



The University of Winnipeg's Fifth Annual Graduate Students Research Colloquium

April 9, 2013: 3D01 & 3D04

Schedule of Events

8:00—8:45 AM: Registration & Coffee
 8:50 AM: Opening Greetings—Dr. Neil Besner
 9:30 – 11:30 AM & 1:20—2:10 PM: Oral Presentations
 10:15—10:45: Poster Presentations & Coffee
 11:35– 12:45 PM: Lunch Break
 12:45PM: Keynote Speaker— Dr. James Currie, Acting Dean of Graduate Studies & Dean of Science
 2:10—3:00 PM: Reception
 2:30 PM: Prize Presentation

ORAL PRESENTATION SCHEDULE

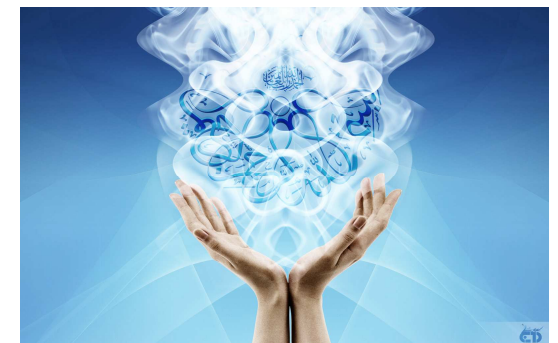
<u>Time</u>	<u>Room</u>	<u>Name</u>
9:00	3D01	Josina Robb
9:00	3D04	Timothy Nyhof
9:25	3D01	Suzanne Gomes
9:25	3D04	Marie Raynard
9:50	3D01	Meagen Chorney
9:50	3D04	Shreelatha Bhadravati
10:45	3D01	Danielle Dubois
10:45	3D04	Brendan Yarish
11:10	3D01	Kaleigh Quinn
11:10	3D04	Kasun Senevirathna
1:20	3D01	Samuel Swanson
1:20	3D04	Ken Genlik
1:45	3D01	Jeff Decontie
1:45	3D04	Alexandra Kroeger

POSTER PRESENTATION SCHEDULE

<u>Time</u>	<u>Name</u>
10:15—10:45	Justin Waito
10:15—10:45	Katelin Neufeld
10:15—10:45	Ankita Lathey
10:15—10:45	Shamsul Hoque
10:15—10:45	Valerie Pelleck

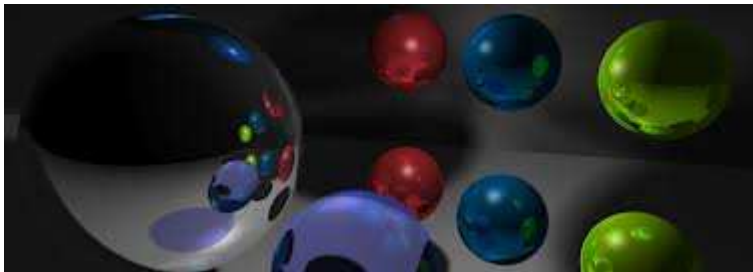
10:15 AM Shamsul Hoque—*BioScience, Technology and Public Policy (University of Winnipeg)*: **Plant resistance and tolerance to insect herbivory: trade-offs and ontogenetic changes in *Arabidopsis thaliana*.** Plant defense against herbivory includes traits that decrease herbivore attack (resistance) and traits that reduce the negative effect of damage (tolerance). Because of their cost and putative redundant function a trade-off between allocation to resistance and tolerance is predicted. Since resource allocation patterns change through development defense levels should change with ontogeny, but it is difficult to predict whether resistance and tolerance should vary in concert through ontogeny. Using *Arabidopsis thaliana*, we measured resistance and tolerance to a generalist herbivore at three ontogenetic stages. We found that both resistance and tolerance increased throughout development. However, at each onto-stage we found evidence of a trade-off between those two defensive traits. Despite patterns, plants from certain accessions can allocate to both resistance and tolerance. No fitness cost of tolerance was detected. Had we measured plants at a mixture of onto-stages, we would have not detected the trade-off.

10:15 AM Valerie Pelleck—*Medical Rehabilitation (University of Manitoba)*: **Focus of Attention During Skilled and Unskilled Putting.** Task instruction wording affects the performance and learning of both novel and well-practiced tasks. An external focus of attention (the effects of a movement), improves task performance compared to an internal focus of attention (the movement itself) in most contexts. Previous attentional focus research targeted primarily behavioural outcome measures to assess the impact of task instructions. The concurrent application of behavioral and electrophysiological measures may illuminate the mechanism behind performance changes with attentional focus. In the present study, skilled and novice golfers will participate in a golf putting task under four attentional focus conditions (internal – stance, internal – swing, external, and non-directed). Dependent variables of interest include putt accuracy, club head kinematics, and electromyographical activity of agonistic upper and lower extremity body muscles. The results of this study will allow further understanding of the mechanism of directed attentional focus.



10:15 AM Katelin Neufeld—*Psychology (University of Manitoba)*: **Doubting do-gooders: The effects of action visibility on trust of moral actors.**

Though moral leaders make positive contributions to society, they are sometimes criticized and attacked by the public. We propose that such social criticisms stem, in part, from a belief that morality belongs in private and business in public. We tested whether peoples' trust in others depends on the actor's visibility and the nature of the action. 150 participants read a vignette describing a fictional male protagonist who acted in either a pro-social or pro-business manner in public or private. Participants rated their trust in the protagonist and their admiration for his actions. While the pro-business actor was more trusted when he operated in public, the prosocial actor was more trusted when he acted in private. This is especially surprising because participants rated the actions of public and private prosocial actors as equally virtuous and admirable. Thus, we found that people are skeptical and distrusting of people they acknowledge are "heroes."



10:15 AM Ankita Lathey—*Applied Computer Science (University of Winnipeg)*: **Multimedia Processing in Encrypted Domain.** This poster presentation aims at providing a state-of-the-art overview of various strategies involved for Processing Multimedia content in Encrypted Domain, which are useful for carrying out secure computing over concealed data, thus, accomplishing various multimedia analysis tasks where content security is a high concern. Widespread use of multimedia requires cryptographic techniques to enforce content access control, intrusion detection: identity verification and authentication, and privacy protection. The multimedia content processing tasks, their applications along with corresponding tools and methodologies for encrypted text, image and video data will be displayed. Moreover, several distinctive challenges that influence signal processing in encrypted domain (s.p.e.d.) such as, data expansion, applicability of additive /multiplicative homomorphism and security/privacy issues in finite field arithmetic will also be highlighted. Finally, several open issues for further research in the area of Processing Multimedia content in Encrypted Domain will be demonstrated.

9:00 AM Josina Robb—*Cultural Studies (University of Winnipeg)*: **Orgasmic Birth Stories and the Promotion of Natural Child-birth.** This paper begins with the observation that stories about orgasmic birth experiences circulate within natural birth literature and have even started to pop up in the mainstream. Because 'orgasmic birth' is a contradiction in terms for a culture that associates childbirth with pain, the resulting narratives must explain how this can be so. I analyze contemporary variants of these stories culled from guidebooks and Youtube videos, documentary film and primetime television. Common features are traced back to the tenets and rhetorical strategies of the natural childbirth movement that emerged in North America during the mid-twentieth century, to demonstrate that, embedded as they are in a highly contested field of representation, orgasmic birth stories work to reimagine the body through narratives that pit technology against nature, the cyborg against the mammal. The 'natural' is portrayed as both female and authentic to primitive others in the promotion of an idealized birth experience.

9:00 AM Timothy Nyhof—*Theology (University of Winnipeg)*: **CHRIST IS THE TRUE MELCHIZEDEK: Menno Simons Christology in The Blasphemy of John of Leiden.** What is most striking about Menno Simons' tract *Against the Horrible and Great Blasphemy of Jan van Leiden* is the Christological contours that Menno Simon articulates against his opponents, whom he claims deny Christ. Interestingly, Menno's argument is devoid of any notion of Mary as being nothing more than a tube through which the celestial flesh of Christ was poured through. Yet it is precisely this notion of the 'celestial tube' that was considered the hallmark of Mennonite orthodoxy. This paper will argue that Menno Simons Christology was honed to combat the 'fleshy' kingship of the 'Third David' which had been claimed by Jan van Leiden and was articulated in

the Münsterite tract *On Vengeance (van de Wrake)* authored by Bernard Rothmann, the orator of the Münsterite Kingdom.

Seminar BINGO!

To play, simply print out this bingo sheet and attend a departmental seminar.

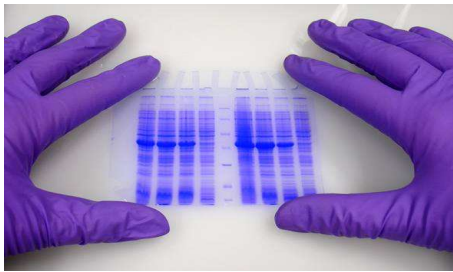
Mark over each square that occurs throughout the course of the lecture.

The first one to form a straight line (or all four corners) must yell out "BINGO!!" to win!

Speaker bashes previous work	Repeated use of "um..."	Speaker sucks up to host, professor	Host Professor falls asleep	Speaker wastes 5 minutes explaining outline
Laptop malfunction	Work ties in to Cancer/HIV or War on Terror	"...et al."	You're the only one in your lab that bothered to show up	Blatant typo
Entire slide filled with equations	"The data clearly shows..."	FREE Speaker runs out of time	Use of Powerpoint template with blue background	References Advisor (past or present)
There's a Grad Student wearing same clothes as yesterday	Bitter Post-doc asks question	"That's an interesting question"	"Beyond the scope of this work"	Master's student bobs head fighting sleep
Speaker forgets to thank collaborators	Cell phone goes off	You've no idea what's going on	"Future work will..."	Results conveniently show improvement

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9:25 AM— Suzanne Gomes—*BioScience, Technology and Public Policy (University of Winnipeg)*: **Spermatogenesis and Gene Regulation in the Drosophila Phylogeny.** When one sex is sterile in the hybrid offspring of two species, it is usually the heterogametic sex (males, in *Drosophila*). Studies have found that a number of spermatogenesis genes are mis-expressed in these sterile hybrid males. Male-specific genes are known to diverge more rapidly than other genes between closely related species. This leaves two possible explanations for hybrid gene mis-expression: it is linked to sterility, or it is due to rapid evolution of regulatory elements between the two parent species (faster male hypothesis). I will test these two hypotheses by comparing gene expression levels (using qRT-PCR and RNA-seq) in species pairs spanning the *Drosophila* phylogeny, where hybrid male sterility occurs in only one direction of the parental species cross. Under the faster male hypothesis, both F1 hybrids (sterile and fertile) should show under expression. If under expression is associated with sterility, it should only be observed in sterile males.



9:25AM Marie Raynard—*Cultural Studies (University of Winnipeg)*: **First Blood, Last Blood: Representations of Menarche in Popular Culture.** The monstrous, alarming female body is even more unacceptable when it bleeds. From ancient taboos to contemporary advertising, cultures around the world have labelled menstruation as dangerous, polluting, and shameful. In Western popular culture, menarche has been represented ambivalently as something that grants women power, turns them into monsters, and ultimately causes death. This paper explores representations of first blood in pop culture during Second Wave feminism (Carrie and The Exorcist) and Third Wave feminism (Ginger Snaps and Lady Gaga's "Paparazzi" VMA performance). Drawing on the thought of Sarah Ahmed, Judith Butler, and Michel Foucault, I analyze these cultural objects in terms of their affective, performative, and discourse-reflexive attributes. In what ways has the representation of menstrual blood changed over time, and what might this mean for pre-menarchal and menarchal girls who experience these representations?

1:45 PM Alexandra Kroeger—*Cultural Studies (University of Winnipeg)*: **Creating a Strategic Refurbishment Framework for the Urban Gallery.** Alexandra Kroeger is developing a framework for the refurbishment of The Manitoba Museum's Urban Gallery for her Curatorial Practices graduate internship, which she will complete in May. This paper presents the design, development, and challenges of creating this refurbishment plan. The main goal of this framework is to root the gallery in the history of Winnipeg. It aims to do so by evaluating each area in the gallery to determine what it was planned to represent, how successful this is, and, if it is not successful, how it can be modified. It also explores technological options to make the gallery as physically accessible as possible, ways to provide more opportunities for interpretation, and ways to involve local community groups in future refurbishment. Strategic refurbishment of the gallery is planned to take place gradually in the next few years, room by room, as funds are available.

10:15 AM Justin Waito—*BioScience, Technology and Public Policy (University of Winnipeg)*: **Fire history in the south-western Lake of the Woods ecoregion reconstructed from tree-ring and lake sediment analyses.** Fire is an important process in the boreal forest. Reconstruction of the fire history is necessary for the development of appropriate management strategies. Two approaches well suited to fire history reconstructions are the analysis of tree-ring and of lake sediment records. The study area is located in eastern Manitoba and adjacent forests of western Ontario. In the winter of 2012, sediments were collected from 8 head lakes. In the summer of 2012, associated tree cores and cross sections were collected and, in addition to archival records, will be used to establish the recent fire history. The lake-sediment fire record will be interpreted through quantification of charcoal particles where peaks in charcoal deposition are representative of fire events. The tree-ring record of fire will be interpreted through accurately dated fire scars and stand initiation ages of pioneer species. In this study, the fire record stored in these two proxies will be analyzed and calibrated to reconstruct recent to millennial fire history.



1:20 PM Samuel Swanson—*Cultural Studies (University of Winnipeg)*: **From Bruce Lee to UFC: The Demythologization of Martial Arts through the proliferation of Mixed Martial Arts.** In the early 1990s, interdisciplinary martial arts competitions began to gain momentum in North America and Japan, sparking paradigm shifts in the trends of both martial arts and its media. While martial artists began seeking more comprehensive (rather than traditional) training, entertainment media such as the Internet, Pay-Per-View, and eventually cable/network television all made way for the sport of Mixed Martial Arts (MMA). The decades linking the 20th and 21st century were and are a period of liminality and polarization for the martial arts. The *mythic* martial arts depicted and perpetuated by film media began to be replaced with sports figures who serve as living *legends* to the martial arts community, and increasingly, the broader public. This paper explains a paradigmatic shift in the conceptualization of the martial arts in North America, once shaped by exploitive films of the 1970s, now shaped more so by a new sport.

1:20 PM Ken Genlik—*Marriage and Family Therapy (University of Winnipeg)*:

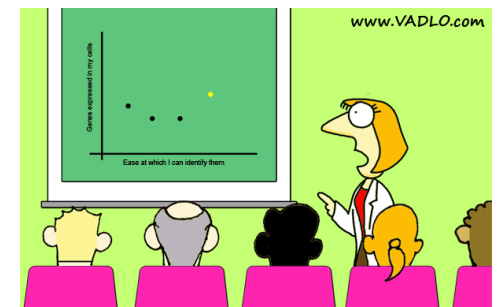
Emotionally Focused Therapy (EFT), Couples and Infidelity.

According to Whisman, Dixon and Johnason (1997) affairs/infidelity are the second most damaging problem that couples face and the third most difficult problem to treat. Glass & Wright (1988) argues that 30 % of couples seek couple therapy because of infidelity during the course of treatment. Zola (2007) mentions that historically infidelity has been described as extramarital or extra-couple sexual relation that has been perceived as betrayal by a partner. In this paper I use infidelity in the sense that one of the couple has sexually or emotionally violated couple boundaries and bonds. Infidelity is an attachment injury that might lead to trauma in couples secure adult attachment. EFT interventions are helpful because they may repair attachment injuries and help the couple to deal with negative emotional cycles that created infidelity. It also empowers couple's positive interaction cycles.

1:45 PM Jeff Decontie—*Indigenous Governance (University of Winnipeg)*: **Indigenous Identities and Nation-Building within Canadian Urban Centres: Relevance for Algonquin Nationhood.** By analyzing contemporary literature on indigenous identities and nations through a decolonization framework, I document historical and contemporary understandings of indigenous identities and more specifically urban ones in North America. Indigenous identities are reconstructed while maintaining certain connections to specific places, traditions, and narratives. Fear of nationalism then encourages nation talk to be deconstructed and indigenized to provide evidence that indeed diverse indigenous nations are growing in urban centres and they are no more harmful than the Canadian nation-building project. I then apply the trends on diverse cultural indigenous identities and nations to the Algonquin Nation in the Ottawa River watershed.

9:50 AM Meagen Chorney—*Cultural Studies (University of Winnipeg)*: **Give Peace (and Folk Song) a Chance: American Folk Song and the Vietnam Anti-War Movement.** Folk narrative and folk song are often associated with antiquarian notions of the romanticized country 'folk' of times long past. This makes it difficult to conceptualize the folk and their songs in more contemporary, post-industrial societies. If we are to believe Alan Dundes' assertion that the term folk can be applied to any group of people who share at least one common factor, it would seem to follow that any such group could create folk songs. Despite this, many folklorists still rely on traditional criteria of folk songs such as anonymous authorship and oral transmission. While my intent is not to negate this, I argue that it could and should be expanded. I have used the Vietnam Anti-War movement in America to explore how the idea of 'authentic' folk song can be expanded to include popular music taken by a social group to give a communal voice to their movement.

9:50 AM Shreelatha Bhadravati - *Applied Computer Science (University of Winnipeg)*: **On the Semantic Security of Secret Image Sharing Methods.** Shamir's secret sharing scheme has been widely used for protecting digital images. In this paper, we analyze the existing secret image sharing methods for security and show that these methods are semantically insecure. Further, we propose a novel approach based on (k, n) threshold secret sharing scheme for images in the compressed and uncompressed domain. In our approach, we divide the secret image into k sections and use the pixel value (for the uncompressed domain) or the Discrete Cosine Transform (DCT) values (for compressed domain) as the coefficients of the polynomial for share generation along with the random values. We present the security analysis and experimental results to show the computational security of our method, with reduced share size.



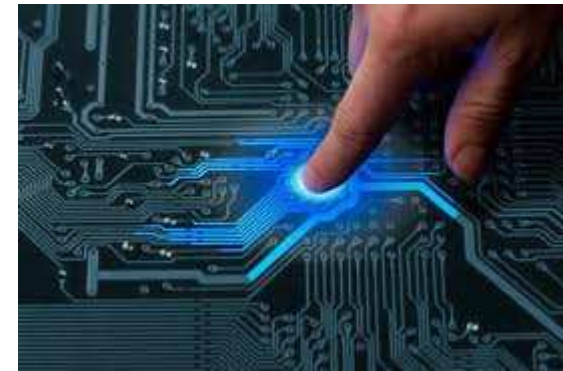
"Same graph as last year,
but now I have an additional dot."



10:45 AM Danielle Dubois—*History (JMP University of Winnipeg/Manitoba)*: **Three Salvadoran Refugee Women's Stories: Agency and Embeddedness in Family Life.** My paper examines the oral histories of refugees who came to Manitoba from El Salvador as a result of that country's war of 1979 to 1992. This paper addresses the question of how three Salvadoran- Canadian women remember the civil war and their migration experience. I consider if and how these women describe their own agency, as well as the importance of familial connections when telling their experiences of war, trauma and migration. As evidence, I examine three oral history interviews that were conducted as part of the Salvadoran Voices of Manitoba project, a collaborative research project involving members of Manitoba's Salvadoran community and the University of Winnipeg's Oral History Centre. With this paper, I hope to contribute to the limited but growing body of scholarship that addresses the experiences of Salvadoran immigrants and refugees to Canada, and shed light on the gendered nature of these experiences.

10:45 AM Brendan Yarish—*Cultural Studies (University of Winnipeg)*: **Building a Legend: The 'Skinny' on the Slender Man.** In June of 2009, a member of a popular online forum created a thread asking other members to manipulate photos so that they appeared to depict paranormal phenomena. The thread was popular, and members soon turned their attention almost exclusively to 'the Slender Man,' a mysterious and malevolent figure appearing in many of the posted pictures. 'Slenderlore' quickly found its way from the forum to the rest of the internet, spawning numerous wiki-based encyclopedias, blogs, videos, and even an online video game. Most examples of Slenderlore treat it as if it could be true—in other words, as a legend. However, some factors, such as its verifiable origin and a lack of definitive narrative structure, do not conform to traditional definitions of legendry. The existence of Slenderlore and other similar online 'legends' exemplifies the increasingly important role of digital media in interpreting—and perhaps even creating—folklore.

11:10 AM Kaleigh Quinn—*Education (University of Manitoba)*: **Factors Moderating the Transition to University for Immigrant Students: Finding a Sense of Belonging on the Canadian Campus.** This qualitative study examines the experiences and perceptions of immigrant students at a small Canadian university in order to investigate the factors that affect their transition and adjustment to the Canadian campus. After examining pertinent literature, this study establishes a conceptual framework that builds on the notion of sense of belonging as it relates to this transitional process, and explores five factors affecting the development of this construct for students: external supports, ease of transition, perceptions of campus environment towards diversity, social integration, and academic integration. Through structured, in-depth interviews, twelve university students share their transitional experiences within one Canadian campus, including suggestions for both students and institutions on fostering a sense of belonging within this context.



11:10 AM Kasun Senevirathna—*Applied Computer Science (University of Winnipeg)*: **A Secure and Privacy-aware Cloud-based Architecture for Online Social Networks.** Usage of social networks has grown exponentially in recent years, and they are continuing to have an ever-increasing impact on people's lives. Basically online social networks are being used by people to share their information (text messages, images, videos, etc.) with their friends. Due to the same reason, there have been many concerns regarding the privacy of users in these environments. More concerns are rising on how trustworthy the social network operator can be in addition to the potential external adversaries. The solutions proposed for existing social networks always carry the question of whether the social network operators would provide the required backing. In this paper we propose a new architecture for online social networking, based on distributed cloud based datacenters and using secret sharing as the method of encrypting user profile data, for enhanced privacy and availability.