

Entrepreneurship
University of Saskatchewan

GAGA FOR GOSLING
PhD students Sarah Sangster, left, and Linzi Williamson worked on a project measuring the effectiveness of Internet memes on promoting feminist beliefs and attitudes. They found that memes, as entertaining (and in this case, distracting) as they are, might actually play a role in educating viewers. Read about their research on Page 7.

LESLIE PORTER

Big goals for food research

Moloney brings clear vision to GIFS

KRIS FOSTER

The future of food security is complex and murky, but Maurice Moloney's vision for the Global Institute for Food Security (GIFS) is crystal clear.

"We've set the goal to triple our funding so that we can become sustainable and successful like VIDO or the Global Institute for Water Security," said Moloney who became executive director and CEO of the institute in October. "It is absolutely realistic to double our funding by landing federal dollars for research. Tripling funding will take extra effort and likely additional funding partners."

Increased money for GIFS, which is currently funded by a partnership between the U of S, the Government of Saskatchewan, PotashCorp and Viterra, will support a growing research agenda focused on results that are applicable locally, nationally and

It is important to have economic impact in developed economies and serve the needs of farmers in developing countries.

Maurice Moloney

internationally.

"Though we already have sizeable contributions from our partners, scientists are notorious in being able to get through millions rather quickly," said Moloney with a laugh. "But that's what it takes for science that is internationally recognized and that will make our partners and stakeholders proud."

The science conducted through the institute, he



Maurice Moloney, executive director and CEO of the Global Institute for Food Security (GIFS).

DAVE STOBBE

explained, will lead to knowledge that is both commercially and philanthropically useful. "It is important to have economic impact in developed economies and serve the needs of farmers in developing countries."

An example of the type of science Moloney, a world-renowned plant scientist, sees GIFS

undertaking, is the push-pull agriculture developed by John Pickett, a chemical ecologist at Rothamsted Research in the U.K.—Europe's largest food security institute where Moloney was once director.

"They studied the invisible signaling between plants, insects and fungi. Pickett's lab has iden-

tified thousands of signaling compounds," explained Moloney, adding that this is an example of translating high-technology research into low-technology applications.

In East African countries like Kenya and Nigeria, corn yields are about 0.9 tons per hectare, a level that is barely subsistence, he continued. There are many reasons for this low yield, top of the list being a corn-boring insect. Pickett's research discovered that a low stature plant called Desmodium repelled corn borers.

"That's the push aspect of push-pull agriculture. The pull aspect is a plant called Napier grass that does the opposite and attracts corn borers. As soon as the corn borers lay eggs on the leaves, the eggs are consumed by a sticky substance and the life cycle of corn borers ends."

See *Benefit*, Page 2



Benefit to farmers is key

From Page 1

The result of planting alternating rows of corn and Desmodium in fields surrounded by Napier grass was corn yields of 3.5 tons per hectare compared to the original 0.9 tons. The economic difference is dramatic.

“With such improved yields everything changes. Those farmers have a surplus of crops and that stimulates the economy. They can buy goats now, that’s like you or I buying a foreign car. It’s creating a new economic cycle.”

This is the type of research Moloney envisions GIFS undertaking. “With the right people we can develop things of this nature with significant impact on agribusiness and subsistence farming.”

In the short term, Moloney said the signs of success for GIFS would be recruiting “credible scientific leaders with a steep trajectory. Those people will do discovery science that is internationally compelling and will

be successful in competing for funds.”

He is positive in thinking he can attract these scientists to the U of S. “I will tell them they can do more science per year here than they can elsewhere, they have enormous opportunity to collaborate, and we are well invested in key research facilities like the CLS, VIDO, CDC. I will also lie about winter,” he said with a smile.

The expertise of those individuals, Moloney continued, will need to be aligned with one of the pillars GIFS has identified to build its science around.

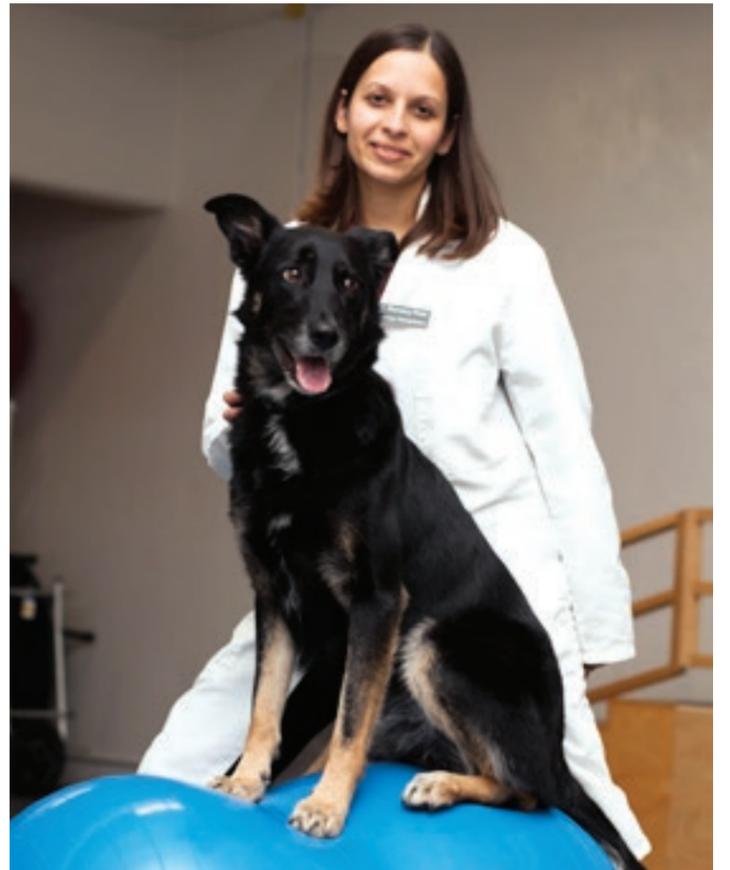
The first pillar is seed biology and plant development to create traits that thrive in drought or extreme weather. The second is “looking at what’s below ground. Soil science is important and we are very good at that, but we need to study the biosphere of soil: what it is. It’s teeming with life and all that life interacts with crops, protecting them from pathogens, stimulating growth improving nutrient utilization.

So we need to look at the interface between soil, micro-organisms and root systems.”

A third pillar is digitization of agriculture—the use of technology to improve production. That includes using global data sets to predict production, remote sensing to measure moisture and nutrients, precision agriculture using GPS and, eventually, combines and seeders that do not require drivers.

“Even just in the infancy of this area there have been lots of improvements. It can bring major benefits to farmers by reducing inputs, increasing yields and increasing margins.”

In five years time, Moloney said he expects some of the research at the institute to move to “translation and out to developing worlds. I would like to see this work boost the standing of the university in the world. That will create magnetism. I could see the institute, if we are really successful, having six or seven pillars and a critical mass of 100 or more researchers.” ■



Dr. Romany Pinto and rehab patient Rose.

WCVN

Getting animals back on their paws

✍ KRIS FOSTER

In the basement of the Small Animal Clinic in the Western College of Veterinary Medicine (WCVN), Dr. Romany Pinto is working with Kaibo, a brown toy poodle with hip and knee problems.

Pinto and her assistant repeatedly move Kaibo—who visits the Veterinary Medical Centre rehabilitation clinic twice a week—through the motion of sitting and lying down on a foam pool noodle, and then up again.

“Where do you start with Kaibo?” said Pinto. “He has a few problems, but he’s a rehab star.”

Once Kaibo finishes stepping up a set of stairs a dozen or so times and balancing on a physio ball, the assistant, leads Kaibo to the underwater treadmill for the final part of the day’s session.

These types of rehabilitation sessions for small animals have been offered by the WCVN for about seven years now, explained Pinto, a clinical associate who runs the program.

“The treadmill was donated by a client, and that’s what actually got the rehabilitation program started,” she said, adding that particular piece of equipment—a treadmill encased in a tank of water to take some weight and pressure off of the animals joints while walking—is every visitor’s favourite.

Since the arrival of the treadmill, the range of rehab equipment has grown to include

a therapeutic laser to speed tissue healing, a therapeutic ultrasound for deep heating, electro-acupuncture and electrical-stimulation to stimulate muscles, a special walkway to measure differences in the pressure an animal places on each limb while walking, and wobble boards to improve balance and core strength.

Pinto and her staff treat pets with a wide range of conditions, but her most common patients are those recovering from surgery, have neurological problems, have arthritis or mobility issues, are canine athletes with soft tissue injuries, or are in need of a weight-loss program.

“We treat seven or eight animals a day, mostly dogs and cats. I had one rat,” said Pinto who describes herself as a dog and cat person equally. “Dogs want to please, but cats generally don’t, so you need to find out what motivates them (to do the exercises).”

Some of the more challenging cases, she continued, included “re-conditioning an out-of-town police dog in the middle of winter and finding ways for an owner in a wheelchair to help their pet do the needed home exercises.”

Pinto also does animal acupuncture for neurological issues and pain management, a field that started gaining popularity about 10 years ago.

See *Positive*, Page 7



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CORRECTION

An article in the Jan. 9 issue about Jim Miller being named to the Order of Canada incorrectly stated the year he began teaching at the U of S. Miller joined the university in 1970. *On Campus News* apologizes for the error.

Restructuring at the top

College plans to strengthen arts, science ties

COLLEEN MACPHERSON

An administrative change in the upper echelons of the University of Saskatchewan's largest college is designed to take advantage of its unique offerings and prove that the sum is greater than its parts.

The search is on to fill three new vice-dean positions in the College of Arts and Science that will take the place of existing jobs, explained Dean Peter Stoicheff. By moving away from division-specific vice-deans (science, social sciences, and humanities and fine

“With this new structure, we’re opening up the college from the inside to create greater discipline variety for students, for courses, programs, degrees and research ...”

Peter Stoicheff



Stoicheff

arts) to a vice-dean academic, a vice-dean of research, scholarly and artistic work, and a third for faculty relations, Stoicheff sees the opportunity to break down internal boundaries and expand

student choices.

“With the previous structure, in a way it was like we had three colleges,” said Stoicheff. “With this new structure, we’re opening up the college from the inside to create greater discipline variety for students, for courses, programs, degrees and research.”

The restructuring has taken a lot of time and a lot of consultation, he said, all of it premised on one important principle—“that we end up with no larger an administration than we currently have.”

Supporting and encouraging research, scholarly and artist work across all disciplines will be the responsibility of one vice-dean while the new vice-dean academic will be charged with organizing and overseeing curricular advancement, renewal and innovation, he said. The vice-dean faculty relations will be responsible for ensuring “we have the right faculty complement plan in the college.”

There were aspects of the divisional structure that were good, he continued, “but the current structure doesn’t engage faculty and department heads in college-level decision making. One of our other principles was to build more opportunities for faculty members to become engaged” at all levels, including with each other. Imagining collaborative research or curricular development, the dean said there is nothing currently stopping faculty “from engaging with each other, but there’s nothing to incentivize them either.”

So included in the change are new college-level structures, including a curriculum committee and a budget advisory committee. “The idea is to get on with more innovation but also to create more space for people to be involved.”

The changes will also help the college adjust to the university’s new Transparent, Activity-Based Budget System (TABBS) “because everything’s going to change around this place with the move into the TABBS environment.”

For Stoicheff, the success of the new structure “will ultimately be reflected in innovative learning and research opportunities for students.” ■

Principles tested in tuition decision

COLLEEN MACPHERSON

“A year like this really tests our resolve around the principles we claim we use to set tuition.”

What Interim Provost and Vice-President Academic Ernie Barber is referring to are loud warning signs from the provincial government that this year’s budget, scheduled to be delivered in March, will be a tight one. That message was reinforced with the announcement the government has put a freeze on hiring for non-essential jobs and on unnecessary travel. And all of this came at a time when the U of S Board of Governors was considering tuition rates for 2015-16.

Barber said even though there is a possibility the university’s operating grant from the government will not include what he termed “the modest ask” detailed in the U of S 2015-16 operations forecast, he stressed the institution “does not set tuition fees to balance the books.”

With that in mind, along with the long-standing principles of considering comparability, affordability and accessibility, and enabling quality, the board announced Jan. 14 that tuition for next year would go up an average of 2.4 per cent for undergraduate students. At one end of the scale, dentistry students’ tuition will remain unchanged at \$32,960 per year and at the other end, students in veterinary medicine will pay five per cent more, up to \$8,680.

For graduate students, the majority of programs will see a two-per-cent increase. The biggest change will be for students in the master of professional accounting program where tuition will go up 5.6 per cent, to \$19,000 from \$18,000 last year.

Barber pointed out that deans and executive directors of schools are involved in setting tuition and that it is done on a program-by-program basis.

For the average undergraduate students, the increase means that a four-year degree program will cost about \$25,000, not including expenses like books, accommodation and enrichment programs such as study abroad and experiential learning, said Barber.

Tuition revenue accounts for about 24 per cent of the all operating revenue for the university each year. The other 76 per cent comes from the Government of Saskatchewan, interprovincial funding, investments and other sources.

Barber said because tuition is part of the larger “envelope of funding we use to operate the university,” it is difficult to pinpoint exactly what specific expenditures are paid for with the revenue “but a lot of thought is given to how increasing tuition can make this educational experience better for students.”

In a media release Jan. 14, Desirée Steele, vice-president of academic affairs with the U of S Students’ Union, said that while there was extensive consultation with students by senior administrators, including deans, prior to the tuition announcement, students remain concerned about a lack of visible improvement in the quality of their education.

“Especially after the take up of the university’s incentivized faculty retirement program, we need to see the university supporting colleges and departments to both bolster existing faculty and conduct the necessary searches to bring new minds to the U of S,” said Steele.

The students’ union is also calling for tuition forecasting for the 2016-17 academic year. “We want students to know the potential cost of their education when they are thinking about attending the U of S,” she said. ■

FROM THE ARCHIVES

Pixies on the roof



PATRICK HAYES, UNIVERSITY LIBRARY, UNIVERSITY ARCHIVES AND SPECIAL COLLECTIONS

MG 511

This issue’s image comes from a recently acquired album of photographs taken by A. F. McKean, BSA 1923. The pixies or fairies are thought to be part of the cast for the November 18, 1921 College Night production of the well-received *A Mid-Winter’s Night Dream*. This was part of a series of “Nights” held every few weeks during the school year and staged in Convocation Hall. The tentative program

announced in October 1921 included Canadian Night, Freshmen’s Night, College Night, Gentlemen’s Night, Burns Night, Historical Night, Orchestral and Original and Composition Night, Ladies Night and Irish Night. The image was captured on the roof of one of the student residences. Campus rooftops were a favorite place to take snapshots in the 1920s. It would appear that there was unfettered access. ■

Around the Bowl



Chung

C.Y. (Tony) Chung is the new SaskPower Chair in Power Systems Engineering in the Dept. of Electrical and Computer Engineering. Chung will be working to advance academic activities and applied research in power systems engineering development.

The Office of the Provost and Vice-President Academic has announced the following appointments:

Dr. Meredith McKague as assistant dean, academic in the College of Medicine for a five-year term.

Marvin Painter as head of the Dept. of Management and Marketing in the Edwards School of Business for a three-and-a-half-year term, until June 30, 2018.

Gord Zello to an extended term as interim assistant dean of pharmacy and nutrition, until June 30.

Joel Bruneau as acting head of the Dept. of Economics for six months, until June 30.

Glen Gillis as acting head of the Dept. of Music until June.

Greg Marion as head of the Dept. of Music for a five-year term beginning July 1.

Jim Bugg to an additional six months as head of the Dept. of Mechanical Engineering, until June 30.

Dr. Gordon McKay to one-year extension as interim vice-dean, research in the College of Medicine or until a permanent vice-dean is been appointed.

Dr. Susan Hayton as interim assistant dean, student services in the College of Medicine for up to six months.

Reza Fotouhi as interim associate dean, research in the College of Engineering until Dec. 31.



Marion



Fotouhi



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Celebrating hockey Coach Dave Adolph

MICHAEL P.J. KENNEDY

With his 378th victory coaching Canadian Interuniversity Sport (CIS) men's hockey, the University of Saskatchewan's Dave Adolph became the coach with the most regular season wins in history. Behind the bench for the Huskies' Jan. 16 triumph over UBC, the Saskatoon native added to his previous CIS landmark achievement of most games coached (724) with his record-breaking win.

Although the University's men's hockey was established in 1910 and interuniver-

sity competition began a year later, Canadian interuniversity men's hockey extends back into the nineteenth century. From among all those who have coached Canadian university teams, it is now Coach Adolph who has registered the most CIS victories. His record for on-ice conquests surpasses the legendary Alberta coach Clare Drake as well as numerous coaches of renown including a number who have gone on to NHL coaching careers.

As a player, the Evan

Hardy student performed for the Saskatoon Olympics before moving to Swift Current to play for the Broncos, then part of the Saskatchewan Junior Hockey League. After high school, Dave "Shultzzy" Adolph enrolled at University of Saskatchewan where he played defence for the green and white, the *alma mater* of his father Jack Adolph who suited up for the Huskies from 1949-51. In 1983, the younger Adolph was part of the only team in Huskie hockey history to capture the CIS national championship's University Cup. Dave began a high school teaching career after earning his BA and BEd, and before he received a Hockey Canada-designated masters degree in coaching from University of Calgary.

His coaching career saw him guide student athletes at Aden Bowman Collegiate before he took a position as assistant coach with the Huskies (1984-89) under the tutelage of former Dogs' bench boss and current Los Angeles Kings' scout Brent McEwen. In 1989, he accepted a position as head coach of the University of Lethbridge Pronghorns, where he stayed behind the bench until 1993 when he returned "home" as head coach for the green and white.

During his Saskatchewan-record 22 seasons behind the U of S bench, he has logged 612 games coached, and a 346-228-38 won-lost-tied ledger. After his initial two seasons at the helm of the green and white,



Adolph

he has guided his charges to 19 consecutive playoff berths from 1995-96 to 2013-14. In addition, from 1996-97 through 2006-07 when Canada West had two divisions, he led his pucksters to 10 division titles in 11 years.

Canada West Coach of the Year in 1998 and again in 2000, "Shultzzy's" straightforward approach to the game and his players has yielded continual top 10 yearly rankings for the Huskies among CIS men's hockey teams throughout most of his tenure.

As important is his commitment to his players' success in the classroom. Dave Adolph

has insisted that his players value their opportunities to obtain a quality education while performing for Huskies. He has demonstrated this in countless ways, providing his student athletes with academic support including tutoring, counselling and scholarships.

The veteran coach has fostered a hockey program which has enabled elite players to not only succeed on the ice, but also to do well in their studies and ultimately in their careers upon graduation. This is attested to by numerous Huskie graduates now flourishing in the community and actively involved with Huskie hockey alumni.

The entire university can take pride in Dave Adolph's commitment to student athletes, his lengthy and productive career behind the bench, and now his record-setting achievement of most CIS regular season wins among this country's university men's hockey coaches. ■

Michael P. J. Kennedy is an instructor in the Department of English and the author of *Dogs on Ice: A History of Hockey at University of Saskatchewan*.

DAVE ADOLPH BY THE NUMBERS

#1	Among CIS coaches in total regular-season games coached	724
#1	Among CIS coaches in total regular-season wins	378
#1	In over 100 years of U of S hockey for games coached	612
#1	In over 100 years of U of S hockey for regular season wins	346
#1	In over 100 years of U of S Hockey for seasons as head coach	22



On Campus News is published 18 times per year by University of Saskatchewan Marketing and Communications. It is distributed to all U of S faculty, staff, graduate students and members of governing bodies, as well as to others in the university community, related organizations, some Saskatchewan government officials and news media.

Subscriptions are available for \$22 per year. Story and photo ideas are welcome. Advertising rates are available online or on request.

On Campus News aims to provide a forum for the sharing of timely news, information and opinions about events and issues of interest to the U of S community.

The views and opinions expressed by writers of letters to the editor and viewpoints do not necessarily reflect those of the U of S or *On Campus News*.

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Editorial Advisory Board: Patrick Hayes, Sharon Scott, David York, Sandra Ribeiro, Fiona Haynes



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ISSN: 1195-7654 PUBLICATIONS MAIL AGREEMENT NO. 40065156

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Self-management app designed to build confidence for hemophiliacs

LESLEY PORTER

The creators of a unique new smartphone app hope to help young men suffering from a rare blood disorder regain their confidence.

JoAnn Nilson, a master's student in the School of Physical Therapy and a practicing physiotherapist, and Richard Lomotey, a PhD candidate in the Department of Computer Science, recently launched Hemophilia Injury Recognition Tool (HIRT), a self-management tool for men with mild hemophilia.

Hemophilia is a rare genetic disorder affecting about one in 10,000 Canadians, explained Nilson. Those with the disease lack proteins that properly clot blood after an injury, and the condition is found almost exclusively in men.

Nilson has worked with hemophiliacs for almost 13 years, and has seen her share of injuries within the hemophilia population, the most significant involving blows to the thigh causing extensive internal

muscle bleeding.

"They're able to walk those off, and then kind of forget about them for a couple days," she said. "By the third day however, they can't bend their knees, and with that volume of blood in the muscle, it takes months before you can get your full range back." Besides the obvious personal burden, these kinds of injuries are also require significant drug and hospital resources, said Nilson.

With this in mind, she began work, alongside Kathy Mulder, a physiotherapist from Winnipeg's Health Sciences Centre, on a flowchart for what to do in case of a bleeding injury, seeking input from men aged 18-35 years with mild hemophilia. The men suggested turning the flowchart into a smartphone app, and making it widely available and easily accessible.

"They would use it if they had it with them," said Nilson, "because when they need it, it's at the side of a soccer field, or in their backpack. They need that

information right at hand."

Nilson found a technical collaborator in Lomotey, a computer scientist with extensive interests in multi-platform applications and mobile cloud computing. After designing a basic structure, the app was presented to the men with hemophilia. Nilson and Lomotey maintained contact with the users throughout the design process, which helped shape its functionality, she said.

"They were definitely part of our team," she noted.

When the HIRT app is opened, the user is surveyed about their injury and associated pain, movement, swelling and warmth. If symptoms are present, the app encourages first aid measures like compression, ice or rest. The app uses an alarm to remind the user to repeat the assessment process in an hour. Pending those results, another reminder is set for one and two days later.

"With that little bit of a reminder on their phone, they're going to look (at the injury) again and may go through those steps of assessment yet again," said Nilson. If any of the symptoms have worsened, the app gives the user contact information for the nearest hemophilia treatment centre.

Nilson stressed the app does not replace professional medical advice, but allows users to



JoAnn Nilson and Richard Lomotey.

LESLEY PORTER

make informed decisions about managing their injuries.

"I'm hoping that it's instilling confidence, which is a huge part of self management."

Lomotey explained the HIRT app does not store user data or information, and users can provide feedback to the developers through a form within the app. There has been some feedback on the flow pattern of the app by users who just want to view the assessment guide and do not wish to be reminded to re-assess, he said, but the reminder function is an important aspect of HIRT.

"It brings us back to the same goal we're trying to target, which is the reminder to not ignore the injury."

There are other apps for hemophilia, he continued, but they were designed for more severe cases and do not assist in assessing injuries. This is the first app for the small community of men with mild hemophilia, a group less likely to report injuries. Nilson acknowledged it is a hard niche to work in, but sees the potential of HIRT and the benefits for users.

"If we prevent four or five bleeds yearly, we have saved the system thousands of dollars in medical resources, as well as reduced the burden to these young men."

HIRT is available in English and French, and free for both Apple and Google devices. ■

NEW TO US



Cathy Holtmann

"I'm not very religious" is a common refrain among the women Cathy Holtmann interviews for her research, right before she reassures them she is more interested in how they live their religion rather than if they are observing its every edict.

"Often women practice their religion in ways that are outside of mainstream understanding," said Holtmann, an assistant professor in the Department of Sociology. "I'm very interested in ways that women use religion strategically."

One example she looked at was how immigrant women tap into their religious communities for help. She found some of these communities supported virtually all aspects of the women's lives, from setting up language training and getting a driver's license, to providing child care and a supportive social group. Women who found themselves in communities with few who shared their religion felt "incredibly alone and isolated."

Holtmann came to the U of S from the University of New Brunswick, where she completed a PhD and a postdoctoral fellowship to cap off a master's degree from the University of Toronto and an undergraduate degree from the University of Winnipeg. Growing up on a dairy farm near Winnipeg, she explained a relationship with religion that is typical of Canada's western plains.

"As farmers, we went to mass really early so we could do our haying because you make hay while the sun shines," she said. "Your faith was an integral and practical part of your life."

Holtmann, who teaches research methods, tells her students that the job of an academic is a privileged one where they can pursue questions that interest them. But with that privilege comes the responsibility to respond to some of the "deep social issues of our time," whether it be the role of women within the world's major religions, or the origins and anatomy of terrorism.

"I encourage them to follow the things they're interested in," she said. "There's a lot going on, always, and so there's always something that needs our work and our attention."

"I really want to encourage students to see our academic work as making a difference in the world." ■

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An insider's perspective

MackInnon book explores university leadership issues

COLLEEN MACPHERSON

Peter MacKinnon returned to the U of S campus Jan. 20 to launch his book *University Leadership and Public Policy in the Twenty-First Century: A President's Perspective*, an insider's look at what one writer quoted in his book described as "the hardest job in modern society."

MacKinnon, who wrote the book while on a year-long administrative leave at the end of his 13-year term as president, draws on his own experiences to make a case for rethinking public policy around universities on several fronts, among them relationships with both federal and provincial governments, tuition, partnerships, collective bargaining and its impact on governance, and science and innovation.

"If I was true to what I wanted to do, the book is written for anyone interested in policy," said MacKinnon in an interview with *On Campus News*. They include faculty, staff and administrators at universities, people in government and even the general public. "I tried to write a readable book."

Throughout the volume,

MacKinnon explores major issues like tenure, the importance of collective advocacy through organizations such as the U15, the value of planning and vision, and growing global competition for academic talent.

But an overarching theme is the tendency of universities to be path dependent, "a fairly simple idea that an established path is easy to follow," said MacKinnon, who is currently interim president of Athabasca University. Established paths have momentum, he continued, but simply following along can make it difficult to produce change within institutions.

While his experiences at the U of S provided starting points for policy discussions, MacKinnon attempted to shape the discussions in ways that would resonate with others across the country, acknowledging that Canada's 97 universities are "all different in significant ways."

The book also looks at the reasons for "the unprecedented high numbers of dismissals or pressured exits" of Canadian university presidents. A contrib-

uting factor to precarious presidencies, wrote MacKinnon, is that the office holders are held accountable for results "over which they have little control."

Included in this chapter, entitled "Leadership with an Asterisk", are discussions of presidential searches, timing of presidencies and the building of administrative teams where MacKinnon suggested the recovery of presidential authority over senior appointments is an area in need of attention. The chapter and the book, save for the Afterword, end with a recounting of the events of May 2014 which saw the resignation of the provost and the dismissal of the president at the University of Saskatchewan.

Those events occurred after the book was complete but before its publication, he explained. In consultation with University of Toronto Press, MacKinnon decided to include

some detail about what transpired, as it was "very relevant to the chapter."

MacKinnon emphasized in the book that finding policy solutions requires first asking the right policy questions such as how to sort out the current state of divided jurisdiction between Ottawa and provincial capitals in post-secondary education and research.

Universities must capitalize on their advantages, not rest on them, if they are to succeed, but universities cannot do it alone. MacKinnon states in the book that a number of communities, government being one, must

share in the effort to ensure universities are the best they can be. "In short, we all need to get our act together."

Looking back over the book's content, MacKinnon said if he could ensure one policy change out of all those discussed, it would be to see government "take a more thorough and informed interest in our universities than they have to date."

"When governments turn their attention to the university, it's usually about controlling or regulating tuition. What is required ... is informed, careful and deliberate discussions." ■



Peter MacKinnon, former U of S president.

KRIS FOSTER



CHILDREN'S Activity Camps

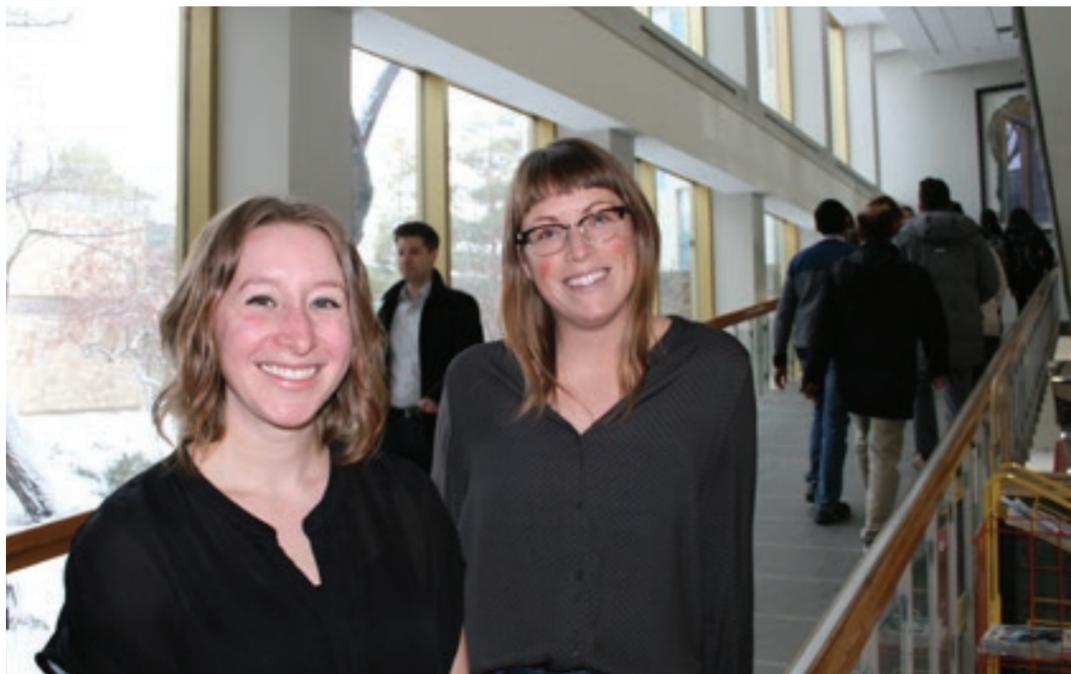
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Linzi Williamson (left) and Sarah Sangster.

LESLEY PORTER

Humour, Ryan Gosling part of meme research

LESLEY PORTER

If you're looking to waste time online, nothing beats taking a trip down an Internet meme black hole.

Crasher Squirrel. Rick-rolling. The Hampsterdance. Grumpy Cat. Chuck Norris Facts. The options are highly amusing and seemingly endless. The more studious, however, might use memes for a better purpose, like academic research. That's what Sarah Sangster and Linzi Williamson, PhD students in the applied social psychology program in the College of Arts and Science, are doing with their research project.

Evolutionary biologist Richard Dawkins coined the term meme almost 40 years ago to represent a unit of cultural transmission or imitation. That high-level definition still applies today, but has taken on a different twist to incorporate all the quirky photos, video, phrases and links that spread quickly online.

Sangster and Williamson are working to determine the cultural impact of Internet memes and whether exposure to them could influence feminist attitudes and beliefs.

Their research choice? None other than the Feminist Ryan Gosling meme.

This particular one first appeared online in 2011. Its premise was simple: photos of Gosling superimposed with text promoting his own sense of feisty feminism. For consistency's sake, they always start with, "Hey girl." After that, they

range from witty ("If I had a hammer, I'd smash the patriarchy") to remarkably academic ("The post-feminist fetishization of motherhood is deeply rooted in classism but I still think we'd make cute babies").

Sangster and Williamson liked that the meme, in addition to being easy on the eyes, poked fun at feminist theory, albeit in an informative way. "It started from just our admiration of Ryan Gosling and the feminist memes," Williamson said, laughing.

From there, they wanted to explore the impact the meme was having on people's attitudes towards feminism, specifically whether it was influential in endorsing feminist beliefs.

"We saw this pop culture phenomenon that many people dismissed," said Sangster. "But maybe they also have an important effect."

Their research process involved showing various photos of Gosling to participants. Half of the photos included the overlapping text (the memes), while the other half did not. After viewing the photos, participants filled out a questionnaire asking about feminist beliefs and attitudes, including if they self identify as a feminist. The results showed those exposed to the memes were more likely to endorse specific feminist beliefs than the control group who just viewed the photos.

"What we found, as well as being cute and funny and pleasant to have around, [is that]

they are a real persuasive device," said Sangster.

Their research has gained a lot of attention, particularly when they presented their work at the Canadian Psychological Association Convention last summer. Their research poster, which includes a giant picture of Gosling and an example of the meme, generated a lot of interest, and the pair could barely catch their breath during their poster session. "It's the busiest I've ever been at a conference," said Sangster. "It's the most attention I've ever received."

"We had a lot of people walk by as if they weren't going to stop, and all of a sudden their gaze is on him and they didn't really watch where they were walking," added Williamson. "They'd have to come back and ask a bit more about what was happening."

Putting a popular culture spin on a fairly traditional topic like feminist theory might make the subject easier to digest, but it is a fine line to walk.

"I think sometimes researchers are reluctant to do it because it seems gimmicky," said Sangster. "If you're doing it just for the gimmick, maybe you're not going in the right direction."

Humour can also be a powerful tool, so long as it is used purposefully and to illustrate the point of research.

"We study some pretty heavy areas of literature, so for us, we like to see the humorous side of research," said Williamson. "There is room for being a little bit cheeky." ■

Positive place for pets

From Page 2

"I've done acupuncture on hamsters, rabbits, rats and a lizard," she said.

But no matter the animal size, condition and treatment

method, Pinto's goal remains the same: to get the patient back to as close to normal as possible. And working with the animals through the process gives Pinto, and the pet owners, an incredible sense of happiness.

"I get to know the patients and their owners. Even patients that are nervous initially usually like coming here eventually. It's a very positive place since we usually get to help improve an animal's condition." ■

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Supplements, exercise proving to be beneficial for bodies and brains

MICHAEL ROBIN

Older adults looking for an edge with their new year's exercise program might consider some judicious use of dietary supplements such as whey protein and bovine (cow) colostrum to help build strength, guard bone and even keep their brains humming along.

Phil Chilibeck, a professor in the College of Kinesiology, has long studied the effects of these supplements on adults in their 50s and 60s, and has had some encouraging results. And, he explained, exercise primes the body to benefit from their use.

"Taking them during a resistance-training program is best," he said. "Resistance training turns on the metabolic pathways in our muscles that are involved in protein synthesis. The (supplements) then provide the amino acids necessary to build those proteins."

But which supplement is best? In one recent study, Chilibeck and PhD student Whitney Duff looked at 40 men and women aged 52-66 years. One group received whey protein, a staple for high-performance athletes, while the other received a bovine colostrum supplement.

During the eight-week study, everyone participated in a supervised 12-exercise resistance-training program. Their mental fitness was tested with a specially designed questionnaire.

"We found that both groups got stronger and their cognitive performance improved," Chilibeck said. "However, the group taking the colostrum supplement performed significantly better on the leg press, and their bone resorption was reduced."

Bovine colostrum, the first milk secreted by cows right after they give birth, is rich in amino acids, other nutrients and various growth factors, according to literature cited by Chilibeck. This includes IGF-1, which is important for development of not only muscle, but brain and bone tissue. Produced naturally in the body, dropping levels of IGF-1 in people as they age is thought to be linked with cognitive decline and lower bone mass.

Chilibeck explained the results are intriguing, since preserving lower body strength in older adults could help prevent balance problems and falls. Also, reduced bone resorption, in effect slowing down the body's natural recycling of bone tissue and preserving bone mass, warrants further study.

"We've done this short term study to show (colostrum) decreases bone resorption, but we didn't measure actual bone mineral," Chilibeck said. "It would take months to change bone mineral, and studies of this length have not been done



Phil Chilibeck and PhD student Whitney Duff.

MICHAEL ROBIN

with colostrum."

While many dietary supplements claim to slow the effects of aging, relatively few have the research to back up their claims. Chilibeck's previous work with creatine which helps supply energy to muscle cells, protein supplements and various amino acids show some do provide benefits when combined with exercise.

"Protein supplements would be most effective if taken after a training session and in relatively large amounts, that

is, equal to about a litre of skim milk in the first few hours after exercise," he said, explaining

that older muscle is less efficient at using protein supplements so larger doses are needed. ■

Edwards fills governance gap

LESLEY PORTER

A new class in the Edwards School of Business is connecting students to the community while they learn the ins and outs of board governance.

The Governance and Leadership Development Practicum provides senior-level students with a mentor from, and an internship with, a local non-profit or community-based organization (CBO), explained Chelsea Willness, the Edwards faculty member who created the course. From September to April, students serve on an organization's board of directors alongside their mentors, gaining experience in organizational governance.

"A lot of our students, like anyone in professional fields, will end up serving on boards," said Willness. The goal is to build their general knowledge of board governance in areas such as leadership, intergroup collaboration and decision-making, along with an understanding of the relationship between the oversight and management of an organization.

The philosophy of the course, she said, is about building capacity for both the student interns and the organizations involved, and for community more broadly. A younger professional workplace demographic means a lack of



Willness

board and leadership succession, particularly in CBOs and the non-profit sector, she said. Meanwhile, students who aspire to one day serve on a board need to be prepared to fill in the leadership gap. If students can assist these organizations while gaining practical, hands-on experience, it is win-win.

"Merging those two things together seems like a really great opportunity for both parties."

To participate in the class, both students and the organizations must apply. An advisory council comprised of current and former students, colleagues and faculty in governance, and representatives from CBOs helps with the selection

See *Students*, Page 9

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Eating local requires careful sourcing

REBECCA MEADEN

When students at the University of Saskatchewan sit down for a meal in the Marquis Culinary Centre, the central hub of the largest food services operation on campus, chances are they are eating something grown right here in our province, which, it turns out, is quite an accomplishment.

“At first bringing in more local food seemed like an impossible task,” said James McFarland, Culinary Services’ assistant director and executive chef. “I’d go down to the farmers’ market to talk to producers, but as soon as I talked about the volume we needed, we never got anywhere.”

What had to change was their approach.

“What we figured out is to try to do it in pieces. Even a number of smaller initiatives add up,” explained McFarland.

Some products like honey and camelina oil are available in sufficient quantities year round, while others, such as haskap berries, vegetables and greens, may be limited in quantity or seasonal and so are incorporated into the menu as they become available.

In addition to sourcing many foods—meat, dairy and eggs—from local distributors,

staff from Culinary Services have developed direct relationships with local producers, bringing products grown here in the province to the plates of university students, he said.

“We have our core menu, but nothing’s really set in stone. We’ve learned to be flexible so we can take advantage of opportunities as they come up.” As the word gets out to food producers and distributors, McFarland expects those opportunities will increase.

However, sourcing local food is only part of the picture.

“What we’re really focusing on is the education component,” McFarland continued. “In addition to providing good food, we want to educate our diners about the value of locally sourced ingredients with regards to both nutrition and sustainability.”

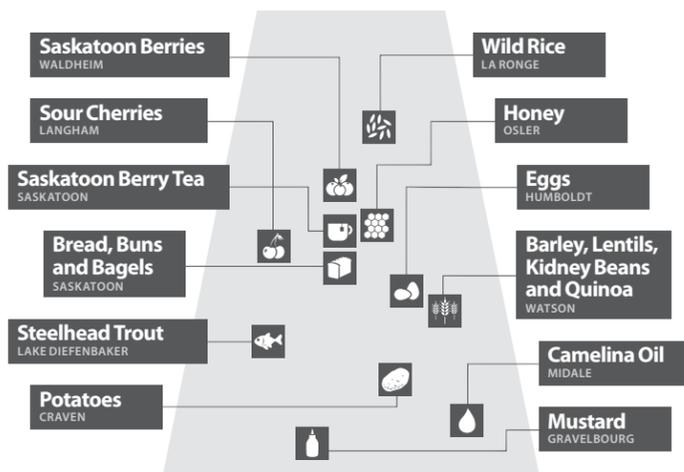
McFarland’s team educates the university community about the food prepared in Marquis Culinary Centre in person and using social media. Foods incorporating local ingredients are clearly identified as diners make their selections.

A recent campaign on Twitter and Instagram also featured the #usasklocal hashtag, which McFarland said was both an opportunity to

showcase some of the dishes created using local ingredients and for students to demonstrate how they incorporate locally grown foods into their own cooking.

“Students today are more knowledgeable. They’re interested in nutrition and social responsibility, including knowing where their food comes from, and the idea of locally sourced, more sustainable foods. We’re glad we can do our part to foster that awareness.” ■

Rebecca Meaden is communications co-ordinator in Student and Enrolment Services Division



LOCALLY SOURCED

The food served at the University of Saskatchewan’s Marquis Culinary Centre has a distinct Saskatchewan flavour.

Students, organizations screened for good match

From Page 8

of participants and with the structure of the course. The advisory council model is another innovative aspect of the course, Willness said.

Student applicants are typically entering their final year of the Bachelor of Commerce program and must demonstrate a passion for serving their community. “We’re looking for people who really fit the values of the course and who will get the most out of it and have something to contribute.”

The advisory council similarly screens interested boards. Every effort is made to match students with boards based on interests and areas of study. Once matched, the students work alongside their mentors and serve as non-voting board members, participating in regular board and committee meetings.

The course has a classroom component as well where students learn about governance fundamentals, strategy, risk mitigation, finances and budgets, board composition, and leadership, aspects that are crucial for contributing to a board and understanding how organizations are run, said

Willness.

Many of her colleagues from Edwards also assist with the course, as they are interested in the topics and in helping students while they serve the sector. “The level of input and engagement from other faculty, I think, is not typical—people stepped up voluntarily to contribute their time and expertise to this course and it’s just been amazing,” she said.

The course will continue to grow and evolve. Willness expects changes could include opening it up to graduate students or to students in other colleges who may benefit from the internship opportunity.

So far, feedback has been positive. The boards are appreciative of the interns’ involvement, and the students are keen to build on their skills and work on real issues in the community. Many students have even reported a confidence boost they have felt as a result of their participation, and a deeper connection to the community around them.

Plus, added Willness, entering the work world with this experience under their belts—not to mention contacts and a professional network to lean on—is a nice advantage for students. ■

Susan Walker

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More pictures and info www.susank.ca

Nominate a colleague for the President’s Service Award

SELECTION CRITERIA

The President’s Service Award is designed to recognize exceptional contributions by a non-academic staff member who is currently working at the University of Saskatchewan.

Employee must be a current employee as of April 30 of year nomination is considered.

Criteria for selection of the individual include evidence of the following:

- enhancement of the work environment by providing extraordinary service to the university community;
- inspiration, support and respect of the endeavours of others; and
- distinction achieved through dedication and commitment.

Nomination forms are available from the President’s Office or may be downloaded from the website.

For further information, call 306-966-6613.

NOMINATIONS

All members of the University of Saskatchewan community are invited to nominate an employee for the President’s Service Award. **Each nomination must include:**

1. a completed nomination form;
2. a one-page overview/executive summary by the nominator;
3. specific examples of how the nominee meets the criteria of this award; and
4. exactly three signed letters of support. These letters may be:
 - from internal supporters, for example, students, co-workers, supervisors;
 - from external supporters as they relate to the work of the nominee at the university; or
 - signed by one or more individuals.

The maximum length of the package, including the nomination form, must not exceed 12 pages.

Deadline March 1, 2015.

UNIVERSITY OF SASKATCHEWAN

usask.ca/president/award

Coming Events

Seminars/Lectures

46th Annual Sorokin Lecture

- Feb. 5, 7 pm, Arts 241, Lesley Wood, professor of sociology at York University, presents the 46th Annual Sorokin Lecture entitled *World on Fire – Waves of Protest and Transforming Communities*

Biology 990 Seminars

Noon in Geology 255

- Jan. 29, Kunal Baxi, PhD candidate, presents Coupling lysosomal function to lifespan and reproduction in *Caenorhabditis elegans*
- Feb. 5, Eric Lamb presents Impacts of invasive species on ecosystem services in a remnant fescue grassland
- Feb. 12, Kiel Drake, senior waterbird scientist, Prairie and Northern Region, Bird Studies Canada, presents Using audio technology to survey for the Yellow Rail (*Coturnicops noveboracensis*)

Islam Awareness Week

- Jan. 26-30, the U of S Muslim Students' Association presents a series of seminars from 6-8 pm each day of Islam Awareness Week in Room 241 Arts. The events will explore issues such as the media's presentation of Islam and what Islam has to say about women's rights, environmental sustainability and war.

Veterinary Microbiology Seminars

Fridays at 12:30pm

- Jan. 23, Room 2302 WCVM, Lisa Johnson, MSc graduate student, Dept. of Veterinary Microbiology, presents Detection and characterization of pathogenic and non-pathogenic *Brachyspira*.
- Jan. 30, Room 2105 WCVM, Hong-su Park, PhD student, Dept. of Veterinary Microbiology/VIDO, presents Investigation of inflammasome-mediated interleukin-1 beta secretion of porcine alveolar macrophages infected with influenza A virus, and Matheus Costa, PhD student, Dept. of Veterinary Microbiology, presents Colon in a dish: an *in vitro* model for gastrointestinal infections
- Feb. 6, Room 2105 WCVM, Kimberley Pastl, MSc student, Dept. of Veterinary Microbiology/VIDO, presents Characterizing the cellular immune response to TonB-dependent proteins of *Histophilus somni* in murine and cattle models, and Glenn Hamonic, MSc student, Dept. of Veterinary Microbiology/VIDO, presents Isolation, validation and characterization of porcine genital tract epithelial cells

Conferences

Ignite

Ignite: A USask Student Leadership Conference takes place Feb. 28 from 8:30 am-5 pm. The event includes speakers and collaborative workshops. The conference is organized by students for students. For information email SLInfo@usask.ca

Celebrating Canadian Writing

Writing North 5: Our Wits About Us, the fifth annual celebration of Canadian writing takes place Jan. 23-24 in the Graduate Student Commons and is sponsored by the U of S and the Saskatchewan Writer's Guild. The event will feature playwright Catherine Banks, novelist Pam Bustin, poet John Donlan and humorist, song-writer and Arrogant Worms vocalist Trevor Strong. For information contact lindsey.banco@usask.ca or visiting the College of Arts and Science news website.

Education Conferences

- WestCAST (Western Canadian Association for Student Teaching) 2015 Feb. 19-20 in the College of Education brings together a diverse audience of educators to share achievements in student teaching. For more information visit westcast2015.usask.ca/index.php
- 2015 Think Indigenous: Inspiring Change Through Indigenous Education Practices

and Knowledges takes place March 18-20 in the College of Education and offers educators the opportunity to enhance their Indigenous knowledge. For additional information consult think-indigenous.usask.ca/

2015 Leadership Conference

The Edwards School of Business presents the 2015 Leadership Conference: Sustainable Leadership – From Cliché to Crucial at TCU Place March 18. The conference will showcase Saskatchewan leaders' knowledge and expertise, as well as celebrate Canadian perspectives and practices on sustainable leadership. Keynote speakers include Amanda Lang, senior business correspondent with CBC News and author of *The Power of Why*; Emechete Onuoha, vice-president of Global Government Affairs, Xerox Canada; and Jim Hopson, president and CEO of the Saskatchewan Roughriders. More information and early bird registration is available at leadership-conference.usask.ca

Women's and Children's Health Conference

The Pediatrics, Obstetrics and Gynecology (POGO) Women's and Children's Health Conference takes place Feb. 5-6 at the Saskatoon Inn. The event will provide recent development and issues in women's and children's health, evidence-based management strategies and a multi-disciplinary approach to improving care. Keynote speakers include: Dr. Vishal Avinashi, pediatric gastroenterologist, Vancouver; Dr. Bobby Ghaheri (via webinar), otolaryngologist, Portland, Oregon; Dr. Elaine Jolly, obstetrician/gynecologist, Ottawa; and Nancy Watts, clinical nurse specialist, London, Ont. For more information, visit usask.ca/cme

2015 Winter Refresher

St. Andrew's College presents its annual Winter Refresher March 5-7 with the theme The Holy Spirit and the Environmental Crisis. The guest speaker is Mark Wallace, professor of religion and interpretation theory co-ordinator at Swarthmore College, Swarthmore, Pennsylvania. More information, including a Winter Refresher 2015 brochure and tentative schedule for download, is available at the St. Andrew's College website at standrews.ca or by contacting the college office at 306-966-8970.

Courses/Workshops

Edwards School of Business, Executive Education

For information call 306-966-8686, email execed@edwards.usask.ca or visit edwards.usask.ca/execed

- Feb. 3-June 13, The Masters Certificate in Project Management
- Feb. 4-5, Developing a Coaching Mindset
- Feb. 9-11, Digital and Social Media Program: Metrics, Measurement and
- Feb. 12, Digital and Social Media for HR Professionals
- March 2-4, The Project Management Course
- March 3-31, The Leadership Development Program
- March 5, Leadership Communication
- March 18, Leadership Conference
- March 20, ICD - Director's Education Program, Saskatoon/Regina
- April 14, Managing Difficult Conversations, Saskatoon
- April 22-23, Business Writing and Grammar Workout
- April 28-30, Professional Selling: Skills for Sales Success

Centre for Continuing and Distance Education

For more information, visit www.ccde.usask.ca or call 306-966-5539

U of S Language Centre

- Spanish Weekender for Real Beginners for the traveller who has little or no Spanish-speaking skills Feb. 6-8 or Feb. 27-March 1, 20 hours over 2.5 days;

Cost: \$294.00 (GST, textbook and workbooks included)

- One-Week Intensive French Immersion for those who wish to advance their language skills Feb. 16-21, 35 hours over 5.5 days; Cost: \$550.00 (GST exempt), materials and final luncheon provided

Summer Ecology Day Camp for Kids

Camps focus on outdoor experiential learning at field sites around Saskatoon and in a biology lab. Registration opens Feb. 9 – call 306-966-5539 or 306-966-4351. Visit ccde.usask.ca/eco/ecology-camps-kids for more information.

- Camp 1-June 29-July 3, Bird Banding
- Camp 2-July 6-10, Dinosaur Ecology
- Camp 3-July 13-17, Marine Mammal Ecology
- Camp 4-July 20-24, Insect Ecology
- Camp 5-July 27-31, Dinosaur Ecology
- Camp 6-Aug 4-7, Wetland Ecology
- Camp 7-Aug 10-14, Marine Mammals
- Camp 8-Aug 17-21, Insect Ecology
- Camp 9-Aug 24-28, Endangered Species

Fees: 5-day camps \$275; 4-day camps \$225; junior leaders \$ 275 for 5-day camp, \$225 for 4-day camp (must have been a previous camper). Before and after care add \$25 (\$20 for 4-day camp).

Community Arts, USCAD/AYAP

- Showtime! Art Exhibitions, Art Spaces and You, Feb. 7
- Welding in Sculpture II Feb. 26, March 7, 28, 29
- Portrait Photography, March 7-8/28-29
- Digital Photography weekend workshop, March 6-7/20-21
- Contemporary Collage with Collagraphy, Image Transfers and Photo Transparencies I, March 6-8/13-15
- Glass Fusion I, Feb. 28 and March 1
- Glass Fusion II, March 21-22
- Silversmithing: Basic Skills for Silver Jewelry, March 13-15
- Advanced Silversmithing, April 10-12
- Watercolour I and II, April 10-12/17-19
- Stained Glass: Focus on Foil Work I, April 24-26

Community Music Education

The Community Music Education Program offers classes in Music in Early Childhood, Suzuki Early Childhood and Parenting with Music. Private lessons in traditional guitar, Suzuki guitar, traditional piano, Suzuki piano and violin are also available. Spring classes for ages 0-36 months will begin in April. For more information visit ccde.usask.ca/community-music.

Gwenna Moss Centre Courses

For more details and to register go to usask.ca/gmcte/events or call 306-966-2231

- Jan. 23, 1-2:30 pm, Relevant and Efficient Assessment: Make your Assessments C.O.U.N.T.I mini course with Carolyn Hoessler and Barb Schindelka
- Jan. 28, 11:30 am-1 pm, Community Organizations 101: An introduction to working together with Lisa Erickson
- Jan. 29, 1-4 pm, White Settler Identity, Indigenous Voices event with Sheelah McLean
- Jan. 30, noon-1 pm, Critical Incidents in Teaching and Learning with Stella Xu
- Feb. 4, 9:30-11 am, How to Jump Start Your Curriculum Innovation with Susan Bens, Carolyn Hoessler and Sheryl Mills
- Feb. 5, 11:30 am-1 pm, Planning for CEL learning: An introduction to the practical considerations and requirements with Andrew Dunlop
- Feb. 9, 1:30-4 pm, The Inclusive Classroom: Fostering Accessibility for Students with Disabilities with Jennifer Amy, Jacqueline Andre, Brenda Beaudry, Eldeen Kabatoff and Sandy Stotz

University Library Workshops

The University Library is offering two workshop series this term. All sessions are free and no registration is required. For more information please go to libguides.usask.ca/LibraryResearcherSeries

Library Researcher Series

- Jan. 29, Beware of Predatory Publishers! 12-1 pm, Murray Library, Room 102
- Feb. 5, Keeping Current with the Literature, 12-1pm, Murray Library, Room 102
- Feb. 12, Searching for Grey Literature, 12-1 pm, Murray Library, Room 102
- Feb. 26, Why and How to Do a Comprehensive Literature Review Part A, 12-1 pm, Murray Library, Room 161
- March 5, Why and How to Do a Comprehensive Literature Review Part B, 12-1 pm, Murray Library, Room 161
- March 12, 10 Government Research Tips You Need to Know, 12-1 pm, Murray Library, Room 102
- March 19, Using the DiRT (Digital Research Tools) Directory in your Research, 12-1 pm, Murray Library, Room 102
- March 26, Research Data Management, 12-1 pm, Murray Library, Room 102

Managing References Series

- Jan. 27, Citation Manager Overview: Which One is Right For You?, 12-1 pm, Murray Library Collaborative Learning Lab, Room 145
- Feb. 3, EndNote Web, 12-1 pm, Murray Library, Room 161
- Feb. 10, EndNote Desktop, 12-1 pm, Health Sciences Library, Room 1430
- Feb. 24, Mendeley, 12-1 pm, Murray Library Collaborative Learning Lab, Room 145
- March 3, Zotero, 12-1 pm, Murray Library Collaborative Learning Lab, Room 145
- March 10, RefWorks, 12-1 pm, Murray Library, Room 161
- March 17, EndNote Overview, 12-1pm, Health Sciences Library, Room 1430
- March 24, RefWorks, 12-1 pm, Murray Library, Room 161

The Arts

1812 Exhibit

The Diefenbaker Canada Centre presents 1812, an exhibit that presents a new account of the War of 1812, a conflict that helped shape Canada. The exhibition begins Feb. 15 and continues until June 21. Check the centre website for opening hours.

The Music of Saskatchewan

Curator Carolyn Doi has assembled an exhibition entitled *The Music of Saskatchewan* that explores the diversity the province's musical history through the work of local artists, composers and producers, artifacts, sheet music, sound recordings and print monographs. The exhibition can be seen in the Link Gallery in the Murray Library until March 27.

In The Making

A talk/tour by curator Diana Sherlock Jan. 30 at 8 pm followed by a reception will mark the opening of *In The Making*, a group exhibition of work by Alberta College of Art + Design alumni that will be on view in the College Art Galleries until April 11.

Kenderdine Gallery

Opening Feb. 10 and continuing until April 17 is and Frank Pimentel exhibition entitled *Dunlands Restaurant*. The show is curated by Leah Taylor.

St. Thomas More Gallery

Showing in the gallery until Feb. 28 is *imPRESS*, an exhibition of work by current U of S intermediate printmaking students. There will be an opening reception Jan. 9 from 7-9 pm.

Snelgrove Lectures

The Gordon Snelgrove Gallery is hosting a series of MFA lectu res. All talks take place at noon in the gallery.

- Jan. 27, Xiao Han presents 1989
- Feb. 3, Alexandra Thiesson presents *A Rose Coloured World*

Silent movie

Brian Unverricht, sessional lecturer in music, will conduct the Saskatoon Symphony Orchestra at the Roxy Theatre Feb. 7 to accompany matinee and evening performances of *Safety Last!*, a 1923 romantic comedy silent film. Tickets are available at the symphony office or Roxy theatre.

Huskies @ Home

Women's Hockey

Jan. 23 and 24 vs. Manitoba
Feb. 14 vs. Regina

Men's Hockey

Jan. 29 and 30 vs. Alberta

Volleyball

Jan. 23 and 24 vs. Manitoba
Feb. 6 and 7 vs TRU

Basketball

Jan. 30 and 31 vs. TWU
Feb. 13 and 14 vs. Calgary

Miscellany

Wheelchair Challenge

Members of senior administration, including vice-presidents and deans, will take on Huskie athletes in a wheelchair basketball game Jan. 26 at noon in the PAC. The event celebrates the wheelchairs purchased with money raised by the KinSpin program and donated to the College of Kinesiology Special Needs Trust. Admission is by donation and pizza will be served.

Debate Volunteers

The U of S Debate Society, organizers of the high school and elementary debate provincial competition on the U of S campus Feb. 7-9, are looking for volunteer judges. No experience is necessary and food is provided. For more information, email asd782@mail.usask.ca

USSU Young Alumni

Excellence Award nominations

Nominees must have graduated from the U of S in the past five years (class of 2009 or later), be 35 years old or younger, be actively involved in their community, and have maintained a strong connection with the U of S and/or the U of S alumni Association. Deadline for nominations is Feb. 6. Visit alumni.usask.ca/ussuaward for more infoRoomation.

SUBMIT

Coming Events

Next OCN: **Friday, Feb. 6, 2015**
Deadline: **Thursday, Jan. 29, 2015**

Email ocn@usask.ca

OCN Publishing Schedule

No.	Issue Date	Deadline Date
11	Feb. 6, 2015	Jan. 29, 2015
12	Feb. 27, 2015	Feb. 19, 2015
13	March 13, 2015	March 5, 2015
14	March 27, 2015	March 19, 2015

Thoroughly modern milking

Rayner barn leads industry in technology

COLLEEN MACPHERSON

University of Saskatchewan cow 944 is a thoroughly modern bovine, which means she turns to technology when she needs to be milked rather than relying on humans to do the job.

Number 944 is one of 39 cows in the herd that uses the Rayner Dairy Teaching and Research Facility's automated milking system, essentially a robot that handles the thrice-daily milking requirement of each animal. For Morgan Hobin,

“As a university, we're the ones who should be using this technology and be leaders in the industry. It's our role, as is sharing with dairy farmers what we know.”

Morgan Hobin



Cow 944 waits to be milked.

facility manager, the system is an important management tool, freeing up dairy farmers and staff “from milking three times a day so they can direct their time to other duties like management, nutrition and animal health.”

She explained the cows access the system on a voluntary basis. Each wears an electronic tag that the robot recognizes; if the cow is due to be milked she is admitted to the narrow milking stall. If not enough time has passed since her last milking, a series of automatic gates directs her out of the milking parlor and back to her stall.

Once the cow is in the stall, a predetermined daily allotment of grain pellets is dispensed into a bin in front of her, one third for each milking. Then the robotic arm goes to work under her, first rinsing her udder and then, using a laser-guidance system,

attaching suction teat cups to each of her four teats.

Hobin said the system can be programmed with each cow's teat configuration and if, for example, one quarter of the udder is dry, can be instructed not to attach a suction cup to that teat.

As the cow is milked, the system records the milk flow from each teat and total milk produced. On an office computer, Hobin and other barn staff can see which cow is being milked, monitor each cow's milk production over time, and are alerted by the system if a milking is incomplete. The screen also alerts staff when a cow is past due for a milking. “Then we go find her and push her through, but we also check to see if something might be wrong like she's lame or has mastitis (an infection in the udder tissue). Or, she might just be lazy.”

When the milking is complete, the teat cups detach and the robot sprays the udder with iodine. After the cow leaves, the stall is automatically rinsed with water before the next animal is allowed to enter. The robot also cleans itself three times a day, said Hobin, running water and detergent through all of its pipes and hoses.

But like all technology, the robot does occasionally experience technical difficulty. When that happens, it contacts the cell phone of on-call staff members who then affect repairs and clear the situation. “And as we learn more about the system, it's easier for us to troubleshoot the little things,” said Hobin, who has a master's degree in dairy nutrition from the U of S.

“It's great technology,” she continued. “As a university, we're the ones who should be using this technology and be leaders in the industry. It's our role, as is sharing with dairy farmers what we know.”

Hobin expects the next evolution in automated milking will come with software rather than machinery, and will likely involve analysis of milk as it is flowing from the cow.

She has noticed, though, that the voluntary milking system highlights a very clear pecking order among its users. “They definitely have a hierarchy as to who gets to go first. One cow will be waiting to get into the robot and



Automated milking system in action.

another will come up and simply push her out of the way. It's quite entertaining to watch them back there.”

The system is also proving entertaining for visitors to the facility. “When people come for tours, they always want to see the robot. They think it's the coolest thing.”

The Rayner gallery, which includes an interpretive centre and overhead walkways through the barn, is open seven days a week from 12:30-4:30 pm for self-guided tours. Hobin advises 1 pm is a good time to visit to see the cows being milked. ■



Morgan Hobin, Rayner facility manager.

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In Memoriam

Jerry Buck, Facilities Management, Sept. 21

Howard Nixon, College of Physical Education, Jan. 6

discover US

This year's back-page feature explores the hidden treasures from University Library, University Archives and Special Collections, and the people who use them.

The book as "polite erotica"

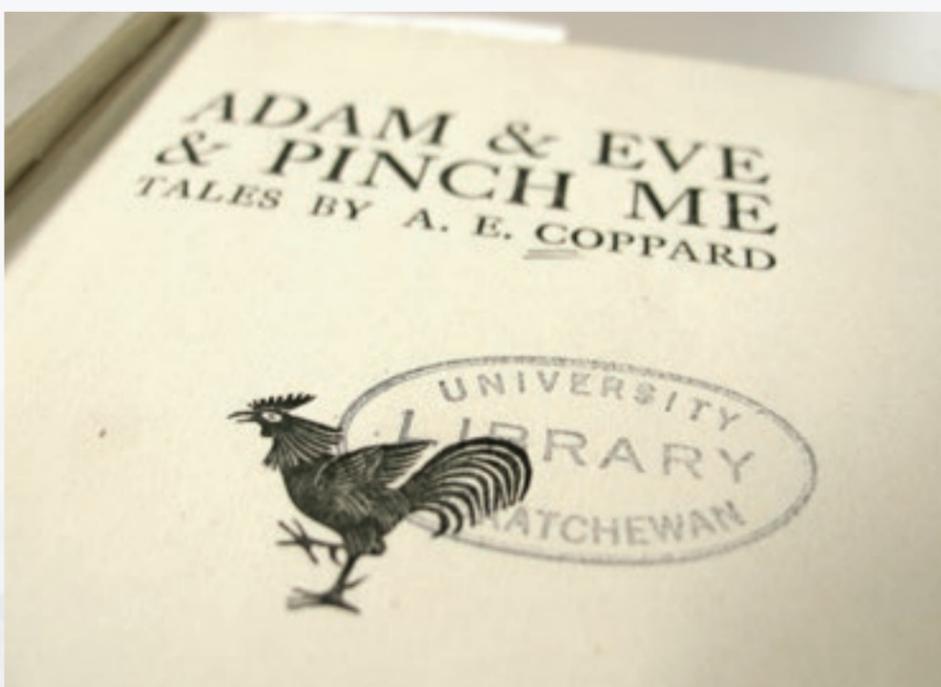
As an instructor of English 204, History and Future of the Book, and INC898, The Book as Object, Jon Bath brings students to University Archives and Special Collections to examine the books he discovered while undertaking his own research. A substantial collection of books published by Golden Cockerel Press is a highlight for Bath, director of the Humanities and Fine Arts Digital Research Centre, and his students.

Founded in 1920 and operated until 1961, Golden Cockerel truly flourished 1924-33 while owned by Robert and Moira Gibbings. During this period, it became known for editions illustrated by the best woodcut artists in England. Along with Robert Gibbings' own work, Golden Cockerel books feature the art of Eric Ravillious, John Buckland Wright, Dorothea Braby and others. Most notably, Eric Gill worked with the press on a number of books and designed their typefaces.

"Students are initially impressed by the beauty of the illustrations, but inevitably they notice that there is a distinct lack of clothing," said Bath. "The Golden Cockerel books provide an opportunity to discuss the tension between fine printing as an art and as a business. As a purely artistic endeavour, the press struggled to stay afloat, but the Gibbings realized there was a market for 'polite erotica' for the gentleman's library and, as a result, some of the finest examples of English printing in the 20th century are rather scandalous."



Professor Jon Bath.



Images from Golden Cockerel Press books.

