Seminars

**MTST** Mathematical and Computational Finance Laboratory (MCFL) Lunch at the Lab series: “Introduction to Python for Finance and Algorithmic Trading I” by Luca Lalor (Department of Mathematics and Statistics, University of Calgary) on **Tuesday, January 18, 2022, at 12:00pm**. Please contact the Department of Mathematics and Statistics for zoom details (mathadmin@ucalgary.ca).

**FoS** Early Career Researcher Workshop: Supervision of Grad Students by Dr. Tara Beattie, Associate Dean, Graduate Sciences Education, Faculty of Grad Studies and Dr. Cathy Ryan, Associate Dean, Research and Grad Education, Faculty of Science on **Wednesday, January 19, 2022, from 2:00-3:30pm**. The goal of the workshop is to highlight the roles and responsibilities of supervisor, highlight best practices and share tips for improved supervisor and student relationships. Faculty interested in a refresher who are not ECR are also welcome to join. Faculty members interested please email Chadwick Dawes (cdawes@ucalgary.ca).

**GEOS** GAC 2021-2022 Hutchison Lecture: “Sending probes into the deep Earth to understand subduction” by 2021 WW Hutchison Medalist Dr. Vincent van Hinsberg (McGill University) on **Thursday, January 20, 2022, at 5:00pm**. Please click [here](#) to preregister in advance for the Zoom webinar.

**BISI** Ecology and Evolution Biology Seminar series: “Biodiversity in the Anthropocene: A paleontological perspective” by Melissa Kemp (Department of Integrative Biology, University of Texas at Austin) on **Friday, January 21, 2022, at 12:00pm**. Please contact the Department of Biological Sciences for zoom details (biosci@ucalgary.ca).

**MTST** PIMS Geometric Analysis Seminar: “Inverse Problems for Nonlinear PDEs” by Dr. Ting Zhou, (Department of Mathematics, Zhejiang University) on **Friday, January 21, 2022, at 3:00pm**. Please contact the Department of Mathematics and Statistics for zoom details (mathadmin@ucalgary.ca).

**GEOS** Gallagher Colloquium Series: “How Life and Rocks Co-Evolve: The 4.5 Billion-Year Story of Earth” by Dr. Robert M. Hazan, Senior Scientist, Carnegie Institute for Science, George Mason University. On **Thursday, January 27, 2022, from 6:30-7:45 PM**. For further information and to register please click [here](#).

**CHEM** NSERC CREATE ME2(Material for Electrochemical Energy Solutions): Solid Electrolytes for All-Solid-State Batteries workshop presents “Advancing All-Solid-State Batteries” by keynote speaker Dr. Linda Nazar, Department of Chemistry, University of Waterloo on **Thursday, January 27, 2022, from 10:00am to 12:00pm (MST)**. This workshop will also include a presentation from the CREATE ME2 trainees, Dr. Chengtian Zhou and Akhil Abraham. For further information or to register please click [here](#).

**UCBC** University of Calgary Biostatistics Centre is hosting an Introduction to R Programming Workshop on **February 22, 2022, from 4:00-6:30pm and February 23, 2022, from 9:00-11:30am**. Please see attached pdf for details.

Opportunities

**Energy Innovation Program - Clean Fuels and Industrial Fuel Switching** advances clean energy technologies that will help Canada meet its climate change targets, while supporting the transition to a low-carbon economy. As part of OERD’s efforts to accelerate the development of technologies that can decarbonize industry, this funding call targets three focus areas: 1) Industrial Fuel Switching, 2) Clean
Fuels Production, and 3) Hydrogen Codes and Standards. See funding calendar or program page for more details.

- An Expression of Intent (EOI) is required by the agency and due on February 2, 2022.
- At the time of submission to the agency, please email a copy of your EOI to Research Services at rsogrants@ucalgary.ca.

Panmure House Prize will award $75,000 for the best research proposal on the topic of long-term funding of innovation in the spirit of Adam Smith. Projects should explore a critical question pertaining to the issue of long-term investing to fund innovation. Research Services’ final internal deadline for the full application is noon on March 31, 2022. For more information see the Funding Deadline Calendar. RSO Contact: Anna LeMarquand

Opportunities – Awards

If you are planning on submitting a nomination for yourself or someone else, and would like support in developing the nomination package, please contact Danielle Demiantschuk as early as possible.

Calgary Awards, offered by the City of Calgary, celebrate and recognize outstanding achievements and contributions made by Calgarians. Last year there were four major categories which included: The Award for Accessibility; The Community Achievement Awards; The Environmental Achievement Award; The International Achievement Award. The Calgary Awards are now open until February 9, 2022. Further information on these awards will be communicated in early January.

Royal Society of Canada Awards and Medals nomination period, which will be open from January 15 to March 31, 2022. Please visit the RSC Awards and Medals page for the 2022 opportunities.

The Japan Prize Foundation is an annual award for scientists and engineers from around the world who have made significant contributions to the advancement of science and technology, thereby furthering the cause of peace and prosperity of mankind. The eligible fields for the 2023 prize are: Electronics, Information, Communication and Life Sciences. Please visit the Prize page for more details. Deadline: January 31, 2022.

Emerald Awards celebrate individuals who are raising the bar in addressing local, regional, and global environmental and climate issues. These environmental awards celebrate excellence across all sectors, more information can be found on the awards page. Deadline: February 11, 2022.

The Global Energy Prize is awarded to the world’s leading scientists, whose discoveries and technological innovations meet global energy challenges. For more information, please visit the website. Deadline: March 20, 2022.

NSERC Prizes, due in April, celebrate researchers at different career stages who are advancing research in the natural sciences and engineering fields. The Faculty of Science Awards Committee is seeking nominations (a short paragraph about why the nominee should be considered and a current CV) for the following prizes:

- Arthur B McDonald Fellowships
- Brockhouse Canada Prize for Interdisciplinary Research
- The Donna Strickland Prize for Societal Impact
- The Gerhard Herzberg Canada Gold Medal
- The John C. Polanyi Award
- Synergy Awards

Please submit nominations to Danielle (contact above) no later than January 24, 2022.
Calgary’s Top 40 Under 40 features young business and community leaders who are excelling in their careers, are giving back to the community, and who, through personal and professional efforts, are raising the profile of Calgary. Please visit the website for more information. **Deadline: April 30, 2022.**

**Opportunities – Health Sciences**

**CIHR Project Grant**
The Project Grant program is designed to capture ideas with the greatest potential for important advances in fundamental or applied health-related knowledge, health care, health systems, and/or health outcomes by supporting projects of research proposed and conducted by individual researchers or groups of researchers in all areas of health. The best ideas may stem from new, incremental, innovative, and/or high-risk lines of inquiry or knowledge translation approaches. Registration is now open and required to be submitted to CIHR.

- The deadline for registration is **February 9, 2022**
- Research Services’ final internal deadline for the full application is **9:00am on March 7, 2022.**

For more information, please see our Funding calendar.

**RSO Contact:** Lindsey Hritzuk

**CIHR Project Grant Webinars**
CIHR will be hosting the following webinars to support participants with the requirements of the funding opportunity “Project Grant – Spring 2022” and to answer questions on how to apply.

- **Duration:** 60 minutes
- **When:** Wednesday, January 26, 2022 at 9:00 am Calgary time |
- **When:** Thursday, February 17, 2022 at 11:00 am Calgary time |

**Opportunities – Postdoctoral Scholars**

**REMINDER: 2022 Killam Postdoctoral Fellowship**
The Killam Postdoctoral Fellowship enables postdoctoral scholars to engage in postdoctoral training at the University of Calgary, consolidate their research training, develop and initiate original research in their discipline, and contribute to the activities of the host unit. The fellowship is open to all faculties and research areas. Postdoctoral scholars who have completed their PhD or equivalent degree from another institution by 1 September 2019 and 1 September 2022 are eligible to apply. Please visit the Research Services funding and fellowship calendar for full details.

- **Award:** $50,000 per year for two years and a one-time $6,000 research allowance
- **Deadline:** Friday, February 18, 2022 at 11:59 p.m. MST **Contact:** vprawards@ucalgary.ca

**National Science Foundation- STEM Education Postdoctoral Fellowship**
The National Science Foundation has a new STEM education Postdoctoral program that is soliciting applications for postdoctoral fellowships. The Fellowships are open to U.S. citizens, national or legally admitted permanent resident alien of the United States. For more information on eligibility and award details please visit [https://www.nsf.gov](https://www.nsf.gov)

- **Award:** Up to $300,000 over two years (up to $150, 000 annually)
- **Deadline:** March 1, 2022

**Congratulations**

Congratulations to Dr. Marc Strous (GEO) on his Tier 1 Canada Research Chair in Geomicrobiology! Read more about Dr. Strous’ research [here](#).
Did You Know?

That the proposed Solid Carbon Project aims to take vast amounts of Carbon Dioxide (CO2) from the atmosphere and inject it nearly three kilometres beneath the ocean’s surface into basalt aquifers. This carbon capture research has the potential to reduce emissions from fossil fuels by 10 times over. To read more about the research and Dr. Ben Tutolo (Geoscience) work in this area please click here.

That the BLG Business Venture Clinic in the Faculty of Law offers short informative presentations on Intellectual Property Law and your rights under them. Faculty can reach out to them if interested in having them present in their classes. The BLG Business Venture Clinic is a student-run, pro bono legal clinic at the University of Calgary, Faculty of Law that provides free legal information to Calgary’s entrepreneurs and is supported by Borden Ladner Gervais LLP. To find out more please click here.

Winter 2022 Grad Special Topics Courses

Below is a list of new (or relatively new) W22 graduate courses in ‘special topics’ courses and/or graduate courses that may be beneficial to, and attended by, students outside of the program in which the course is scheduled. If you are interested in enrolling in one of the below classes, please contact sci.grad@ucalgary.ca for assistance.

BIOL 607.08 Special Problems in Biology (R-Wizardry)
R-Wizardry is a once-a-week course to develop basic and advanced skills in computer programming using R/RStudio. These skills include data management, processing, exploratory data analysis, flow control, data visualization, publication-quality plots, among others. The last two weeks of the course will touch on special and advanced topics depending upon needs of attending students. Each class will consist of a short lecture into the day’s objectives, followed by directed learning with example programming, concluding with a short homework assignment to reinforce the skills learned.
Meeting time: Wednesday, 2:00-4:45pm, Instructor: Paul Galpern

ECOL 603.06 Advanced Behavioural Ecology
Behavioural ecology is a discipline that is asking how natural and sexual selection shape animal behaviour. The most important questions being asked are: 1) why do they behave the way they do? 2) What are, if any, the fitness advantages to individuals’ behaviours? or, in other words, 3) What are the ultimate explanations for observed behaviours? The currencies we measure to answer these questions are either proxies of, or direct benefits to the survival or reproductive success of individuals. In this class, we will cover some of the most important topics in the study of behavioural ecology, the questions asked, experimental and observational approaches, and how these inform and shape our current understanding of the behaviour and ecology of individuals.

The pedagogy behind this course is to get you to ask pertinent questions, discuss current literature and present individual topics to the class. Each weekly meeting will be a combination of lectures and discussions of focused studies on the topics of your choice (listed below). The end goal is for you to write a review paper on a specific topic, that can, but does not have to be, on an aspect of your own research.
Meeting time: Tuesday, 11:00am-1:45pm, Instructor: Kathreen Ruckstuhl

PHYS 619 Statistical Physics II
This course gives an introduction to equilibrium and non-equilibrium critical phenomena corresponding to phase transitions as well as to methods to study complex systems including complex network theory, extreme value theory and causality analyses. The goal of this course is to develop specific conceptual, mathematical, and numerical skills for understanding and analyzing critical phenomena and associated fluctuations in different settings as well as complex systems and their dynamics in general.
Meeting time: Tuesday/Thursday, 11:00-12:15pm, Instructor: Jörn Davidsen
SCIE 601- Theory and Practice of University Teaching and Learning in STEM
Emphasizing a research-to-practice approach, this course will engage students in readings and discussions about current research, theory and methodological approaches, and pedagogical approaches in Discipline-Based [STEM] Education (DBER) research. Course readings will be varied and include scholarly, practical, and popular readings in order for students to gain nuanced understandings of the social contexts and related issues and challenges of college and university STEM education. Course materials will also emphasize critical, antiracist and decolonizing approaches to build frameworks of transforming postsecondary STEM Education cultures towards belonging of diverse students and cultural-scientific worldviews. While there will be seminal readings, aspects of the course will be co-designed with students’ interests and professional needs in mind. Activities will be geared towards designing environments for equitable postsecondary STEM education, broadening ideas about assessments and evidences of student learning, SoTL research and other topics and interests that emerge from students’ interests and experiences.
Meeting Time: Tuesdays, 3:30-6:15pm, Instructor: Jennifer Adams

Please send any seminar notices or events or CONGRATULATIONS notes to be included in the newsletter to sci.borg@ucalgary, subject line SRIN.