uOttawa Cellular & Molecular Medicine
and Neuroscience Council presents

The Biweekly

July 25th, 2018 Edition

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Check out our website as well!

http://www.cmmnsc.ca
MATLAB/PYTHON CRASH COURSE

August 28
Noon
RGN 2022

You can learn to program!

Save time by automating your data analysis!
Make plots and perform stats on anything from
behavioural to imaging data.

Bring your laptop with Matlab or Python
already installed

Free pizza with registration
CMM/NSC Running Club

Catered to all runners

2k. 4k. 5k.

June 11, 2018
Weekly (Monday)

5:30 PM Start Mondays - Depart RGN main entrance

Brought to you by
CMM / NSC Graduate Student Association
What is a One-Way ANOVA?
A one-way ANOVA is a type of statistical test that compares the variance in the group means within a sample whilst considering only one independent variable or factor. It is a hypothesis-based test, meaning that it aims to evaluate multiple mutually exclusive theories about our data. Before we can generate a hypothesis, we need to have a question about our data that we want an answer to. For example, adventurous researchers studying a population of walruses might ask “Do our walruses weigh more in early or late mating season?” Here, the independent variable or factor (the two terms mean the same thing) is “month of mating season”. In an ANOVA, our independent variables are organized in categorical groups. For example, if the researchers looked at walrus weight in December, January, February and March, there would be four months analyzed, and therefore four groups to the analysis.

A one-way ANOVA compares three or more than three categorical groups to establish whether there is a difference between them. Within each group there should be three or more observations (here, this means walruses), and the means of the samples are compared.

What is a Two-Way ANOVA?
A two-way ANOVA is, like a one-way ANOVA, a hypothesis-based test. However, in the two-way ANOVA each sample is defined in two ways, and resultingly put into two categorical groups. Thinking again of our walruses, researchers might use a two-way ANOVA if their question is: “Are walruses heavier in early or late mating season and does that depend on the gender of the walrus?” In this example, both “month in mating season” and “gender of walrus” are factors – meaning in total, there are two factors. Once again, each factor’s number of groups must be considered – for “gender” there will only two groups “male” and “female”.

The two-way ANOVA therefore examines the effect of two factors (month and gender) on a dependent variable – in this case weight, and also examines whether the two factors affect each other to influence the continuous variable.

Differences Between One-Way and Two-Way ANOVA
1. A one-way ANOVA is primarily designed to enable the equality testing between three or more means. A two-way ANOVA is designed to assess the interrelationship of two independent variables on a dependent variable.

2. A one-way ANOVA only involves one factor or independent variable, whereas there are two independent variables in a two-way ANOVA.

3. In a one-way ANOVA, the one factor or independent variable analyzed has three or more categorical groups. A two-way ANOVA instead compares multiple groups of two factors.

4. One-way ANOVA need to satisfy only two principles of design of experiments, i.e. replication and randomization. As opposed to Two-way ANOVA, which meets all three principles of design of experiments which are replication, randomization, and local control.

GSAED Academic Project Fund

Did You Know that GSAED can cover up to $400 in accommodation to help cover the costs of a conference?

See the link below for more details.

http://gsaed.ca/individual-academic-project-fund/

Comic relief
Hungry? The SFUO Food Bank is here to help!

- The SFUO Food Bank believes no student should have to choose between educational expenses and food. Located in the basement of UCU, Room 0015, the food bank provides hampers with three days’ worth of food.
- You can only use the food bank once a month, but all you need is a student card and, if possible, some reusable grocery bags. The food bank is supported by donations and an annual food drive.

Visit the CCRM website for upcoming conferences and workshops:
https://ccrm.ca/regenerative-medicine-workshops

Join the mailing list for updates:
https://ccrm.ca/join-our-email-list-mc

A Mindfulness Program is available to you via the Change4Life health portal:
http://www.greenshield.ca/en-ca/about-gsc/newsroom/plan-member-preview
UPCOMING THESIS DEFENSES

July 27

9:30 AM - RGN2111, 451 Smyth Road

The Roles of Selectin Ligands and Innate Immune Responses in Modulating Resistance to Intracellular Bacterial Infections in Murine Hosts with Altered Immunity

Gerard Agbayani, Ph.D. in Microbiology and Immunology

Thesis supervisor: Lakshmi Krishnan & Subash Sad

PUBLICATIONS


Academic Information

Verify your academic file
It is very important that you verify your academic and personal information displayed on the Enrol application in your uoZone account (https://uozone2.uottawa.ca/). Some of the information appears on your permanent official record or transcript. Remember that all changes to your course schedule must be reflected in academic record.

Looking for training that sets you apart?

MyGradSkills.ca
Find your future

At the very heart of MyGradSkills.ca sit a series of self-paced, online modules aimed at providing information about #gradproskills ranging from topics like teaching & learning, to career development, to community engagement, to entrepreneurship, and much more.

These 18 modules were created by the Ontario Consortium for Graduate Professional Skills Development in a unique collaboration funded by the Ontario Ministry of Training Colleges and Universities, through their Productivity and Innovation Fund (PIF).

View Online Courses: https://www.mygradskills.ca/
Keep up to date with all upcoming workshops: https://altitude.uottawa.ca/en/workshops

Did You Know?
All new employees (staff, graduate students, summer students etc.) at the University of Ottawa must undergo health and safety training! The Office of Risk Management and the Faculty of Medicine’s Environmental Health and Safety websites both have lists of all training courses available. Remember, training must be renewed every 4 years. Many external scholarships are conditional upon the trainee having up-to-date training certification.

Visit for more details!
http://www.uottawa.ca/services/ehss/menuTraininglink.htm
&
http://www.uottawa.ca/services/ehss/register.htm
Reminder

View the many graduate resources available to you!
http://www.uottawa.ca/graduate-studies/students/resources

As well as your rights as a graduate student:
http://www.uottawa.ca/administration-and-governance/policies-and-regulations#academic-regulations

FREE/DISCOUNTED software available to YOU from uOttawa!


uOttawa Software: https://it.uottawa.ca/software


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Next CMM/NSC council meeting:

Monday, August 6th 2018, RGN 3126 at 12:00 pm

Anything we missed? New publication? Have good news you want to share with your colleagues?
WE WELCOME YOUR FEEDBACK!!!

The newsletter is prepared jointly by the CMM/NSC Council and the CMM/NSC administration! We welcome ideas and volunteers willing to improve the quality of this publication.

Contact us at cmm.nsc@gmail.com, or visit us at http://www.cmmnsc.ca