Information Session

The Visual and Automated Disease Analytics Program

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January, 2020 | University of Victoria





University



The VADA Program – What is it?

An NSERC CREATE partnership program between University of Manitoba and University of Victoria that will run from 2017 – 2023



Train the next generation of health, health informatics, and computational science graduate students to translate complex health data into insights that can be used to improve the health of populations and support healthcare decision making

86 students by 2023













Dr. Elizabeth Borycki















Program Structure

Concurrently working towards their Master's or PhD

- PhDs: 2 years
- MSc: 1 year

The program has four components:

- Foundations of Disease Analytics Course (3 chs offered two terms)
 - 2nd year PhD students do not repeat course and instead participate in a journal club
- Summer School (June/July)
- Practicums (8 weeks for MScs and 16 weeks for PhDs)
- Thesis project that focuses on data visualization and/or advanced analytics for chronic or infectious diseases
 - Visualization, Statistical or machine learning, network analysis

















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Matthew Parker







The VADA Program Visual and Automated Disease Analytics Graduate Training Program























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Foundations of Disease Analytics Course

Offered in the fall and winter academic terms on a biweekly basis on Friday afternoons.

Classes consist of:

- Seminars led by VADA Program team members and collaborators
- Journal club activities
- Skill-building activities involving analyses of real datasets, developing research posters, and presenting research to nontechnical audiences









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Summer School

One week long – hosted at the George and Fay Yee Centre for Healthcare Innovation

- Big data challenge
- Career panels
- Student poster presentations
- Skills sessions







Practicums

- **Industrial internship:** project(s) with an industry partner/collaborator
- Lab exchange: academic research project(s) for a VADA Program faculty member(s) who they have not previously worked for and who is not their thesis supervisor or committee member
- Previous hosts:
 - Population Data British Columbia
 - *iFLYTEK Laboratory for Neural Computing and Machine Learning (iNCML)*
 - Manitoba Centre for Health Policy
 - Canadian Network of Observational Drug Effect Studies
 - Island Health Vancouver Island Health Authority





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Which Students are Eligible to Apply?

To be eligible for the VADA Program, students must:

Be accepted into one of a select number of **thesis-based graduate programs (Master's or PhD) at the University of Manitoba or University of Victoria**, AND have a graduate advisor or co-advisor who is a member of the VADA Program faculty team. Participating advisors and graduate programs are from:

University of Manitoba: Departments of Biochemistry and Medical Genetics, Community Health Sciences, Computer Science, Mathematics, Medical Microbiology, and Psychology.

University of Victoria: Department of Computer Science, Department of Mathematics and Statistics, School of Health Information Science, Social Dimensions of Health Program, and Department of Sociology.

Note: Students cannot apply to the VADA Program if they have **not also applied to a graduate program** in their department/school of interest. **Students from other programs within the University of Manitoba or Victoria may be considered**, pending consultation with the VADA Program faculty leadership team.





Program Funding Opportunities

- MScs: eligible for one year of funding (\$16,000 per year)
- PhDs: eligible for up to two years of funding (\$19,000 per year)
 - A second year of funding is not guaranteed and is contingent upon students' progress and a review by the Recruitment and Selection Committee
- Conference funding of \$500 is available per student annually
- Travel costs for summer school are covered
- Relocation expenses related to the internship are reimbursed





Program Skills Development

Throughout all components of the program, skills in software programs such as **R**, **Python** and **Tableau** are fostered by working with real datasets and problems. Professional competencies are developed in:

- Responsible conduct of research
- Communications
- Entrepreneurism
- Project management
- Professional and personal improvement





Student Application Process

- Complete application form (found on website) and submit two reference letters, a current CV and transcript showing last 60 credit hours
- Submit by January 31st 2020 to vada.program@chimb.ca







Faculty Involvement

- Participate in bi-monthly VADA Program team meetings.
- Join and actively participate in one of the VADA Program subcommittees (bi-monthly meetings):
 - Internship/Lab Exchange Committee
 - Summer School Committee
 - Recruitment and Selection Committee
 - Research Excellence Committee
 - Sustainability Committee
- Supervise one or more VADA Program trainees
- Serve on a VADA Program trainee's thesis committee if requested
- Lead a class in the Foundations of Disease Analytics course and/or agree to lead a session in the Summer School





Faculty Application Process

Complete application form (found on website), submit along with a CV and cover letter to <u>vada.program@chimb.ca</u> by **January 31**st **2020**







Thank you!

vada.cs.umanitoba.ca







