

## First Year Mathematics Courses Repository Final Report

### Principal Investigators/ Contact information

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### Report

The EDC Grant was used to support the development of the First Year Mathematics Courses Repository, a resource supporting an ongoing national dialogue among instructors and educational developers about teaching first year mathematics at Canadian universities. This sharable dynamic online repository contains extensive data about more than 350 first year math courses taught at Canadian universities. Data includes content, learning outcomes, modes of delivery, and connections with other courses and programs.

The fully functioning Repository was released in April 2018. The Repository is accessible at <https://firstyearmath.ca/>.

The repository provides an open, organized, comprehensive, and searchable web resource of information for math instructors and educational developers. The repository has already become a major tool that will enable the Canadian university mathematics teaching and the educational development communities to collaborate across the country in their efforts to provide the best post-secondary mathematics education possible.

The Repository was extensively used during the conference “First Year University Mathematics Across Canada: Facts, Community and Vision” held at The Fields Institute, Toronto, ON, between April 27-29, 2018. For more details, please see <http://www.fields.utoronto.ca/activities/17-18/first-year-univ-math>. A description of the use of the Repository during this conference was published in the article Barr, D., Burazin, A., Garaschuk, K., Jungić, V., and Lovrić, M., *First Year University Mathematics Across Canada: Facts, Community and Vision*, CMS Notes, Volume 50, No 4, September/October 2018, pages 10-13

Between February 8-10, 2019, Banff International Research Station, Banff, AB, will host “First Year Mathematics Repository Workshop”. The workshop participants will use the data about so-called service math courses collected through the Repository to discuss the future developments of this important segment of educational activity of the Canadian mathematical community. For more details, please see <https://www.birs.ca/events/2019/2-day-workshops/19w2256>.

In the fall 2018, we applied for a Canadian Mathematical Society Grant with the proposal entitled “Math Kafé” – Connecting mathematics educators across Canada. We have proposed to create a series of events, named "Math Kafé," at which university faculty would work on the First Year Mathematics Repository. The result of our application is still pending.

We are happy to report that the Repository fits with EDC Living Plan:

- *Engaging our Community*: The repository has enabled cross-country collaboration; it has provided a forum for dialogues about important issues identified across Canadian campuses; it has enabled faculty and educational developers facing similar challenges to brainstorm/ discuss/ share potential strategies to advance the issue and connect with other organizations with related passion to build a network
- *Building Resources*: The repository hosts a database and is itself a knowledge resource.
- *Facilitating systemic and organizational change*: The repository is an agent of change; it is a tool that enables Canadian university math teaching community to take a systems perspective to the ongoing processes; and as such it helps instructors and educational developers to see the place of the current and future math courses as part of the big picture.
- *Teaching and Learning quality*: The repository provides arguments to those who are developing and facilitating the enhancement of the quality teaching and learning of mathematics at the entry university level; it contains data that will be used to support valid, meaningful, and appropriate assessment of teaching and learning processes, practices and programs; it provides a collaborative space for effective, evidence-based, and complex discussions about quality teaching and learning; it is a place for sharing evidence-based strategies, practices, and tools; and provides an opportunity to examine policies, identify gaps, and inform institutions about ways to improve the quality of teaching and learning of mathematics.

## Budget

Tasks were based on the research assistant rate of \$25/hour, including benefits:

Tasks	Hours	Cost
RA to create and maintain interface that will be used to enter data	40	\$1,000
RA to monitor data entry, clean up the data, and prepare summaries	40	\$1,000
<b>TOTAL</b>	<b>80</b>	<b>\$2,000</b>

## References

Jungic, V., and Lovric, M., *Call for National Dialogue: The Present and Future of Teaching First Year Mathematics at Canadian Universities*, CMS Notes, Volume 49 No. 5 (2017), 10-12.

Barr, D., Burazin, A., Garaschuk, K., Jungić, V., and Lovrić, M., *First Year University Mathematics Across Canada: Facts, Community and Vision*, CMS Notes, Volume 50, No 4, September/October 2018, pages 10-13

