

# THE BRITISH COLUMBIA COMMITTEE ON THE UNDERGRADUATE PROGRAM IN MATHEMATICS AND STATISTICS

## Minutes of the 103<sup>rd</sup> Meeting, May 13-14, 2025 Okanagan College, Penticton Campus, British Columbia (in person and online)

Tuesday, May 13, 2025

### 1. Welcome and Opening Remarks

9:00 AM

#### 1.1. Welcome from the Host Institution

Dr. Kevin Douglas, Associate Dean of Science and Technology, welcomed everyone to the 103<sup>rd</sup> meeting of the BCcupms, at the Penticton campus of Okanagan College. This included a territorial acknowledgment that the campus is located on the traditional and unceded territory of the Syilx Okanagan People.

Juliana Buitenhuis, campus administrator, welcomed us as well and told us a bit about the facilities in which our meeting is being held: the Jim Pattison Centre of Excellence in Sustainable Building Technologies and Renewable Energy Conservation. This building has LEED Platinum certification and is considered one of the most sustainable education buildings in Canada.

Plenary Session #1

9:10 AM

### 2. Adoption of Agenda

**Motion** (Suzanne Feldberg, TRU) to adopt the agenda, as provided, for the 103<sup>rd</sup> meeting. Seconded (Jennifer Hyndman, UNBC). **Approved by consensus.**

The Chair proposes to amend the agenda to move item 9.3 BCCAT Report (Robert Fleming) to occur before item 9.1 BCCAT System Liaison Report (Susan Oesterle) BCCAT report (item 9.3)

**Vote** called to adopt the agenda with the proposed amendment. **Passed unanimously.**

### 3. Approval of Minutes of 102<sup>nd</sup> Meeting held at Douglas College, May 14-15, 2024

**Motion** (Stephen Brown, Okanagan College): That the minutes for the 102<sup>nd</sup> meeting be approved with the following amendments:

- pg 4, item 9.3, "\$500" to replace "\$5000" for outreach activities
- pg 5, item 5.4, near bottom, "intermediate, advanced and provincial" to replace "basic, intermediate, provincial"

Seconded (Brian Wetton, UBC).

**Vote** called to approve the minutes of the 102<sup>nd</sup> meeting with the above amendments. **Passed unanimously.**

#### **4. Announcements**

##### **4.1 Introduction of Representatives**

Chair invited all Zoom participants to introduce themselves, followed by in-person attendees around the table.

##### **4.2 Notice of elections:**

At this meeting, elections for the positions of Vice-Chair and Secretary of the BCcupms will be held. These positions have two-year terms. A nominating committee was formed: Alexandra Blair (North Island College), Suzanne Feldberg (TRU) and Andrea Hyde (College of the Rockies). The nominating committee will report during the next day's session (May 14<sup>th</sup>).

##### **4.3 Conferences**

Representatives were invited to announce the details of any conferences that might be of interest to the committee.

- (Bruce Dunham, UBC): The first Canadian Conference on Teaching Statistics (CanCOTS) is taking place at HEC Montreal, June 11-12<sup>th</sup>. A modest amount of funding is available.
- (Andrea Hyde, College of the Rockies): The Fields Institute is hosting an online conference, "Beyond Chalkboards: Digital Innovations in Teaching Mathematics," Dec 10<sup>th</sup>.
- (Stephen Brown, Okanagan College): Sharing Math will be taking place at Okanagan College, Penticton campus immediately after this conference, May 14<sup>th</sup>.
- (Susan Oesterle, Douglas College): The Canadian Math Education Study Group (CMESG) is taking place at the University of Lethbridge, June 13<sup>th</sup> -17<sup>th</sup>.
- (Susan Oesterle, Douglas College): Changing the Culture is taking place at SFU Vancouver this Friday, May 16<sup>th</sup>. The conference is free, but registration is required.

The meeting was proceeding well ahead of schedule, so the chair made the following motion

**Motion** (Deanna Baxter, Chair): To move items 5.1 (Website policy) and 5.2 (Sharing Exams) of the agenda to the current position, before the keynote presentation, and discuss these now.

**Approved by consensus.**

#### **5. Matters Arising from 102<sup>nd</sup> Meeting:**

##### **5.1 Website Policy – Stephen Brown, Ana Culibrk, Natasha Davidson**

At the 102<sup>nd</sup> meeting it was determined that we should have a policy document for the BCcupms website, and a committee was formed (Stephen Brown, Ana Culibrk and Natasha Davidson) to

create a policy. The committee briefly reviewed their draft of the website policy with the committee. The current version can found on the BCcupms website, or at the link:  
<https://bccupms.ca/wp-content/uploads/2024/05/bccupms-website-policy-draft-version-7.pdf>

**Motion** (Jennifer Hyndman, UNBC): To approve the website policy. **Seconded** by Costa Karavas (UCW & VCC).

Prior to calling a vote, various aspects of the website policy were then discussed, grouped into the following broad themes:

### **Policy regarding posting of photographs**

Natasha Davidson (Douglas College) outlined the draft policy and procedure for posting photographs on the website. The policy will require permission to post photographs from the principal subjects of the photograph.

There was significant discussion about how to obtain these permissions and how we would store and access them when needed. In particular, what form the permission documents would take (paper vs. electronic), who would collect and have access to them (secretary vs. website coordinator), where they would be stored and how they would be transferred between people when needed.

Andrea Hyde (College of the Rockies) suggested that the policy should only state that this information will be collected and will be kept private, and that we have a separate procedures document to outline the procedural details, which will likely need to change more frequently (eg. if we start a Moodle site).

It was also discussed and agreed that a statement should be added to the policy indicating that the committee will honor requests to remove any photographs from our website.

### **Private section of the website**

Stephen Brown (Okanagan College) presented the new “Member’s Forum” section on the website, that could be used as a public forum for sharing information and resources. We then also briefly discussed the possibility of having a test repository where we can post exams we want to share publicly. It was agreed to defer further discussion of this to the next agenda item (5.2 - Sharing Exams).

Next followed a discussion among many members about the need to keep a small amount of private data (eg. signatures/agreements to post photographs). Susan Oesterle (Douglas College) reminded the committee that BCCAT has offered to host a private Moodle site for the BCcupms. It was agreed that the executive would explore this option further before the next meeting. Ben Vanderlei (UFV) suggested that our website policy should include some details about where such private data would be stored, and who would have access to it.

### Logistic and functional details

The website coordinator (Stephen Brown, Okanagan College) indicated that the meeting RSVP button and form on the website worked well. It was agreed by consensus to add management of an RSVP form to the website coordinator's duties moving forward.

Several members (Jennifer Hyndman, UNBC, Natasha Mandryk, VCC) expressed a desire to add the committee's bylaws and/or terms of reference to the website and a reference to these in the website policy. It was noted that this committee follows terms of reference set by BCCAT and that we should include a link to these on the website and in the website policy.

Stephen Brown (Okanagan College) reminded the committee that the small amount of required funding for the website (approx. \$85/year) is by donation, via either cash donations or the PayPal Fundraiser that can be accessed through the website funding page: <https://bccupms.ca/website-funding/>. He noted later in the meeting that we received enough donations over the meeting to cover until the end of next year.

Ben Vanderlei (UFV) asked where past year's minutes are archived. The Website Coordinator indicated that minutes from 1999 onwards are available on our BCCupms website (under Meetings). The Chair indicated that minutes are also posted by BCCAT after approval at the next meeting. Currently, our meeting minutes from 2021 and onwards are publicly available on their website.

**Motion** (Jennifer Hyndman, UNBC): To postpone the vote to approve the website policy until the next morning to allow the website policy committee to make amendments. **Seconded** by Ben Vanderlei (UFV). **Approved by consensus.**

### 5.2 Sharing Exams

The Chair reintroduced our discussion from the 102<sup>nd</sup> meeting regarding the desire to share final exams amongst members of this committee and the challenges involved. A discussion around the table was then conducted about whether members and their colleagues would want to share final exams and under what conditions they would be willing to do so.

Although most members indicated that they or their colleagues would like to share exams, it was found that there was a wide range of conditions required for a member or their colleagues to be willing to release an exam to a repository. Some members felt strongly that a private space and various assurances of exams remaining private were necessary, whereas others felt that exams should be shared publicly and/or that no exam is ever kept confidential in the modern era anyway (i.e. students are shockingly good at finding ways to copy and share exam questions). The committee did not arrive at a consensus on what level of privacy and access would be ideal for an exam repository.

The purpose of sharing exams was discussed next. Two main purposes were identified:

- Comparing with other institutions. This included benchmarking for difficulty level, exam format and length, tools and resources allowed, inclusion of formulas and formula sheets, etc.
- Inspiration for creating new exams.

Next followed a short discussion of the logistics for creating and maintaining an exam repository. Ideas that were brought forward include:

- Maintaining a publicly accessible repository on our current BCcupms website (eg. in the Members' Forum section).
- Maintaining an email list of people willing to share exams, and posting these on the website.
- Adopting the proposed BCCAT Moodle site and maintaining a members-only repository there. In this case, two suggestions were made for indicating allowed use:
  1. Contributors add instructions or a header/banner to their uploaded exams that indicates their desires for how the exams are to be used (eg. "may be shared publicly" or "do not share with others," etc.) (Deanna Baxter, Capilano University)
  2. Create separate sections/folders in the Moodle site for the different possible uses (eg. a "may be posted/shared publicly" or "for inspiration only/do not reuse or share," etc.) (Natasha Davidson, Douglas College)

Susan Oesterle (Douglas College) reminded us that, with regards to this committee, the original purpose of such an exam repository was to share exams between institutions as a resource for articulation purposes, rather than as a study resource for students.

The conclusion of the committee at this stage was that there are 3 options to consider:

1. Posting exams to a public site (eg. the BCcupms website),
2. Posting exams on a private webspace (eg. Moodle hosted by BCCAT), or
3. Maintain both types of spaces and post/share exams to the appropriate space.

As it was now past time for the Keynote presentation, the committee agreed to continue this agenda item after lunch.

## Keynote Presentation – Stephen Brown - MyOkanaganMath

10:15 AM

Stephen Brown (Okanagan College) presented his work on development and use of "MyOkanaganMath" (MOM). This is an online mathematics system that generates questions algorithmically and performs automatic grading as well as various LMS functions. It is derived from the popular MyOpenMath system developed by David Lippman, but hosted by Okanagan College.

More information and demo questions can be found at <https://imathas.okanagan.bc.ca/diag/index.php>. Stephen's presentation can also be found on the BCcupms website: <https://bccupms.ca/wp-content/uploads/2024/05/bccupms-myokanaganmath-keynote.pdf>.

Stephen welcomes future questions by email at [scbrown@okanagan.bc.ca](mailto:scbrown@okanagan.bc.ca).

### **Questions and answers following the presentation:**

Costa Karavas (VCC & UCW) asked about the availability of solutions and feedback. Stephen answered that although not all questions have solutions or hints, he often chooses questions that have video hints, and in the past has also hired a student to write solutions to some questions.

(Brian Wetton, UBCV): What is the main advantage/disadvantage compared to WeBWork? Stephen's answer: I find the interface significantly simpler. Browsing for questions is easier. WeBWork feels more dated.

(Brian Wetton, UBCV): How easy is it to import from WeBWork? Stephen's answer: I don't know, but probably not very easy.

(Brian Wetton, UBCV): How much does all of this rely on you? Stephen's answer: Currently a lot, but IT is capable of taking over much of it fairly easily.

(Michael Monaghan, SFU): Does it have the ability to make multi-step questions, where parts must be correct before they can continue to the next part? Stephen's answer: Yes, but it has to be programmed into the question. It is quite easy to do, though.

(Ben Vanderlei, UFV): How close is this to being easy for an institution to start up their own server? Stephen's answer: I think it is quite easy.

Eric Agyeum (VIU) and Ben Vanderlei (UFV) asked about using it at other institutions. Stephen's answer: It's quite easy to set up your own server, but ideally we would like to have a server that BC institutions could collaborate on.

(Mateen Shaikh, TRU): My experience is that the learning curve for MOM is less steep than for WeBWork, but that WeBWork has a few advanced features or capabilities that MOM does not. However, most people would not need those features.

(Alex Blair, NIC): Which LMS's will it integrate with? Does it integrate with Brightspace? Stephen's answer: Several LMS's, including Canvas, Blackboard, Moodle. I think also Brightspace and D2L.

(Costa Karavas, VCC & UCW): Do you use this for tests or quizzes as well as homework? Stephen's answer: We have used it for tests and quizzes in Bring Your Own Device courses.

(Costa Karavas, VCC & UCW): Is there an easy way to print assignments? Stephen's answer: Yes, it's quite easy. Details for how to do this were given but not recorded.

The committee thanked Stephen for the presentation and adjourned for lunch.

## **Plenary Session #2**

1:10 PM

### **5.2 Sharing exams (continued from prior to the Keynote Presentation)**

The Chair gave a brief review of the discussion to date, which started before the Keynote presentation. She reiterated that we have been discussing two different purposes for sharing exams:

1. As an exam bank for sharing questions between instructors or even to students, and 2. For

comparing exams between courses and institutions for articulation purposes. The first purpose could be accomplished with our BCcupms website. The second purpose could be accomplished on a Moodle site, if we get one set up through BCCAT. So, we need to discuss now whether we should maintain an exam repository on the BCcupms site, on a new Moodle site, or do both. The floor was then opened to discussion.

(Eric Agyekum, VIU): Is this something we should discuss with our department first? (There was no clear agreement on this.)

(Alex Liu, KPU): We are currently having trouble getting exams scheduled concurrently to have a common final exam. This is making it difficult to have consistent exams for different sections of the same course.

(Natasha Davidson, Douglas College): Are final exams at UBC still collected and made public? Answer from Brian Wetton (UBC): No. Sometime about 15 years ago this practice stopped. There was also a period where the math club sold packages of past final exams, but that is also no longer the case.

(Deanna Baxter, Capilano University): A question for Stephen. If we went to a model with both a public repository and Moodle site, would that be too much work for you? Answer from Stephen Brown (Okanagan College): The Moodle site should be very easy, as the work would be almost entirely done by the contributors. For the current BCcupms (public) site, it is not a lot of work.

There was a discussion among many committee members about whether solutions should be provided for exams contributed to these repositories. Opinions were mixed, but the consensus was that for now inclusion of solutions should be optional.

(Ben Vanderlei, UFV): In addition to the exam questions, it would be useful to share information about the format, length of time, types of calculator allowed, formula sheets, etc.

(Costa Karavas, VCC & UCW): I am also on the ABE articulation committee, and there we already use the BCCAT Moodle site. Things are very structured. Faculty can upload whatever they want, but there are standards already set for file names, file folders, etc. that should be followed. It is important to have that structure.

(Alex Liu, KPU): What is the advantage of the public website? Answer from the Chair: There are many other people who could benefit from viewing exams on our public site (eg. high school teachers).

(Deanna Baxter, Capilano University): Are we all in favour of us starting a Moodle site? This would be as a supplement to the public site, so that we can have some password protected/firewalled site for sharing exams. **Agreed by consensus.**

## **6. Institutional Reports (highlights) Part 1 (appended to the minutes below):**

Representatives outlined highlights from their institutional reports relating to enrolment trends, new programs and courses, or new hires and retirements.

### Plenary Session #3

3:00 PM

#### **7. Institutional Reports (highlights) Part 2 (appended to the minutes below):**

The remaining representatives outlined highlights from their institutional reports.

The Chair thanked the representatives for their reports. The Chair also reported to the committee that long-serving members David Leeming (PIMS) and Leo Neufeld (Math Challengers) are leaving their positions and will no longer be reporting to this committee.

Session Adjourned at 5:30pm. The traditional Greek dinner took place this year at “Theo’s,” 687 Main Street.

## Wednesday, May 14, 2025

### Plenary Session #4

9:00 AM

#### **8. Committee Business:**

##### **8.1 Report from Nominating Committee and Election(s)**

The nominating committee reported that the current Vice-Chair, Costa Karavas, has agreed to stand for Vice Chair again. The Chair called for further nominations 3 times. There were no further nominations, and Costa Karavas was re-elected Vice Chair by acclamation.

The nominating committee reported that the current Secretary, Sandra Merchant, has agreed to stand for Secretary again. The Chair called for further nominations 3 times. There were no further nominations, and Sandra Merchant was re-elected Secretary by acclamation.

##### **8.2 Location, Dates, Agenda items for 104<sup>th</sup> Meeting**

At the 103<sup>rd</sup> meeting, both Langara College and Kwantlen Polytechnic University (KPU) had expressed willingness to host the 104<sup>th</sup> meeting. After discussion and deliberation, it was agreed by consensus that Langara College would host the 104<sup>th</sup> meeting and that KPU will consider hosting the 106<sup>th</sup> meeting (in 2028) instead.

The 104<sup>th</sup> meeting of the BCCUPMS is therefore planned to take place on May 12<sup>th</sup> & 13<sup>th</sup>, 2026 at Langara College, in Vancouver.

##### **8.3 Proposed Dates and Location for 105<sup>th</sup> Meeting**



The proposed dates for the 105<sup>th</sup> meeting are Tuesday, May 11<sup>th</sup> and Wednesday, May 12<sup>th</sup>, 2027.

There was a discussion about potentially moving the meeting dates. The committee considered other possible dates in May and early June, but we were not able to come to a consensus on a better date. It was therefore decided by consensus to keep the current scheduling.

The University of Victoria has tentatively offered to host the 105<sup>th</sup> meeting (May 11-12, 2027).

A discussion took place about the facilities required to host a hybrid meeting. It was agreed by the committee that technology for hybrid meetings will not be considered an impediment to hosting the meeting, as the primary mode is intended to be in-person, with online attendance being an option *when possible* by the hosts.

Tijana Sretenovic, (LaSalle College) has expressed interest LaSalle College hosting eventually, possibly in 2028, as that would be the next meeting in the lower mainland.

Jennifer Hyndman (UNBC) also indicated some interest in UNBC hosting sometime in the future for a year that is to be outside the lower mainland, so 2029 or later.

#### 8.4 List Updates

The Chair expressed concerns about the mailing list/listserv emails not getting through to recipients. Costa Karavas (VCC & UCW) suggested that representatives contact our IT departments to whitelist the listserv, but some representatives indicated that they have tried this with no success. Some members indicate that the emails go to their junk folders, but others indicate that they don't even appear there and so must be filtered out entirely.

The listserv manager, Gary MacGillivray (UVic), then sent an email to test it and advised representatives to check if they received it.

Gary MacGillivray (UVic) announced that if you would like to be added or want someone else to be added to the listserv, you can email him at [gmacgill@uvic.ca](mailto:gmacgill@uvic.ca). You can also email him if you want to be removed from the list. You can also add yourself to the listserv by visiting <https://lists.uvic.ca/mailman/listinfo/bccupms>.

To be added to the Statistics Subcommittee and MFEE (Math for Elementary Educators) email lists, please email Susan Chen at [chen@camosun.ca](mailto:chen@camosun.ca).

Jennifer Hyndman, (UNBC) announced that there is a Canada-wide first year math teaching group that has regular monthly online conferences. You can visit [www.firstyearmath.ca](http://www.firstyearmath.ca) to find out more.

#### 9. Reports:

## 9.1 BCCAT Robert Fleming

Robert Fleming thanked the committee for our work each year. He confirmed that BCCAT is supportive of maintaining hybrid meeting options, but have a preference for in-person attendance when possible. He noted that the Ministry's perspective is that articulation meeting funding is part of base funding, and so there should be some funding available for representatives to travel to articulation meetings.

There was a short discussion about what to do with the many boxes of math articulation committee notes currently in the BCCAT offices. It was confirmed that VCC has offered to house them, and Susan Oesterle (Douglas College) and Deanna Baxter (Capilano University) have volunteered to assist with reviewing and moving them.

### Some BCCAT updates by Robert:

- This year's BCCAT Joint Annual Meeting (JAM) has been scheduled for Nov 6<sup>th</sup> and 7<sup>th</sup>, 2025.
  - Sessions will be recorded and posted online.
  - More information at <https://www.bccat.ca/articulation/jam/>
  - Suggestions for topics are welcome, please send to Robert Fleming at [rfleming@bccat.ca](mailto:rfleming@bccat.ca)
- The Spring Update newsletter has been published. It can be found here: <https://www.bccat.ca/resources/ACUpdate202504.pdf>. Highlights include:
  - BCCAT has started a review of their policy on membership. BC is one of the few provinces that provides the opportunity for private institutions to take part in transfer. They are also trying to increase the ability for indigenous non-degree granting institutions to take part in the transfer system.
  - There is a call out for nominations for the 2025 BCCAT transfer awards. These are awards to recognize innovation or lifetime work in creating pathways for transfer.
- Technology Update:
  - BCCAT is currently consulting stakeholders about modernization of the Transfer Credit System. There are currently ~385000 records in this database.
  - They are currently working with the Ontario Council on Articulation and Transfer (ONCAT) to deploy a Transfer Credit System in Ontario, with the goal of a shared platform for articulation and transfer within the two provinces.
  - Microcredentials are being added to the Transfer Credit System.
- Research: BCCAT has a number of research projects in progress. Research reports can be found at <https://www.bccat.ca/articulation/projects/>. Projects highlighted by Robert include:
  - Profile and performance of BC transfer students: This is a longitudinal study of student success in the transfer system. The goal of BCCAT is to have every institution share their data. There is a large report on their website, but the main

result is that students who take part in the transfer system overall graduate at the same rate as direct entry students. The report contains breakdowns by region, institution, etc.

- Simultaneous enrolment at multiple institutions and uses of letters of permission (LOPs): This study assessed the frequency of simultaneous enrolment in the BC Transfer System, examined the institutional processes and procedures around LOPs used to facilitate simultaneous enrolment and provided recommendations to maximize the effectiveness of simultaneous enrolment and LOPs.
- How institutions are awarding equivalence for courses at institutions outside of BC. This was found to be highly variable.
- Accessible admissions: A summary of thirty-eight BC Transfer System post-secondary institutions' admissions processes and a presentation of both current best practices in the system and opportunities to advance equity in admissions.

### **Questions and Discussion:**

There was a concern put forward by several members that the information available for transfer credit from some international students is minimal and sometimes poorly translated, but that the institutions' articulation officers push for an articulation decision to go in the database to use for future students. The general consensus from the discussion between Robert Fleming and the committee was that articulation should not be done without sufficient information, and that decision makers should require more information be submitted if they feel it is needed. Robert Fleming also indicated that it should also be possible to specify that an articulation is only valid for a single student (i.e. is not global and should not be entered into database).

(Michael Monagan, SFU): Is there a policy document on how to make articulation decisions? Robert's answer: Yes, there is the "How to Articulate" handbook published by BCCAT, available on their website (<https://www.bccat.ca/publication/howtoarticulate/>). Also, note that not all articulations are 1 to 1. The transfer credit system can handle combinations (for example, these 3 courses as a group articulate to these 2 other courses).

(Jennifer Hyndman, UNBC): How can we deal with multiple articulations that involve the same course? Robert Fleming's answer: You shouldn't necessarily be replacing an articulation, there should be multiple articulations possible. Other representatives expressed similar technical challenges when trying to articulate courses in non 1-1 scenarios, and suggested that a video training resource would be helpful. Robert indicated that such a resource could be possible.

For very specific articulation questions (eg. you do not agree with an articulation decision, or a course is not articulating the way you expect it to), Robert Fleming suggested that the best option is contact the representative for the other institution (either in person at this meeting, or find their email from the BCcupms website) and discuss it directly with them.

(Deanna Baxter, Capilano University): The annual cost to maintain our BCcupms website is \$85. You asked last year if we had a website policy, as that is necessary for BCCAT to consider funding it. We have now drafted a policy and it just needs a few edits. So, we are asking again if BCCAT would be willing to fund our website? Rob Fleming's answer: If you send us your policy, then we can have an internal discussion about this.

(Deanna Baxter, Capilano University): Would we also be allowed to have a BCCAT hosted Moodle site for resources that need to be kept private? Answer from Robert Fleming: It should be possible, but please send me a note outlining what kinds of material you would like to house there. We would need to make sure they align with our policies.

A last note from Robert Fleming: We have special project funding available for articulation committees with ideas for articulating things outside the regular scope. You can see the website for more information (<https://www.bccat.ca/articulation/projects/>).

## **9.2 PIMS – David Leeming (online)**

David provided us with some history of the PIMS Education Associates program. It is a program designed to provide non-PIMS institutions with up to \$500 per year for outreach activities.

David Leeming has now retired from the PIMS Education Associate program, and this is his last official attendance at the BCCUPMS meeting. On behalf of the entire committee, Susan Oesterle (Douglas College) thanked David for his many years of work and his support of the BCcupms, followed by a standing ovation from the representatives.

## **Parallel Session #1**

10:45 AM

### **10. Math Break-out Discussion Part 1**

We began with a discussion about the main priorities for the math break-out session. By consensus, the committee agreed to remove the item “10.1 Programming courses for math majors” from the agenda and instead have the agenda items

- Software used for lower-level math courses (previously item 10.2)
- Attendance issues (new)
- Weight of unsupervised assessments in courses (new)
- AI and testing (new)

#### **10.1 Software used for lower-level math courses**

(Michael Monaghan, SFU): At SFU most of our courses do not have a prescribed computing component. Course instructors do use some software, but don't require students to use it. My question to all of you is: “Do your institutions require software such as Desmos, GeoGebra, Wolfram Alpha, Maple, Matlab etc. to be used for any lower-level math courses? And if so, are there specific learning goals tied to them?”

(Natasha Davidson, Douglas College): As a quick question first: “How many institutions are still using Maple for anything with non-zero assessment value? And if not, what are you using?” (A show of hands gave only 2 positive answers to this)

We proceeded with representatives responding to Michael’s question one-by-one around the table and on Zoom.

(Paul Tsopméné, UBC Okanagan): Only in our MATH 307: Applied Linear Algebra, and it is just my decision (up to the instructor), to use Python.

(Ben Vanderlei, UFV): Some of our courses have an indication that software will be used, but which software is up to the instructor.

(Jennifer Hyndman, UNBC): There is a course (MATH 335) that specifically says software will be used, but the software or programming language is not specified. Faculty members are using Maple to do demonstrations. Students are coming in already using their own personal choices of software.

(Suzanne Feldberg, TRU): AT TRU we abandoned Maple a long time ago, and we don’t use any software in our lower level courses. Our numerical analysis course does use some software.

(Eugene Belchev, Langara College): At Langara we have Calculus 1 and Calculus 2 versions that come with a lab component. I think the software used is Maple. For linear algebra we use Matlab.

(Gera Belchev, Coquitlam College): We use none.

(Brian Wetton, UBC Vancouver): We have an engineering linear algebra course that requires Matlab. We also have a mathematical computing course that requires Python.

(Sandra Merchant, BCIT): I know many of our mechanical engineering use Matlab. I’m not sure if it is listed in the learning outcomes, though. I’m not aware of any other lower level courses that require specific software.

(Deanna Baxter, Capilano University): Our Pre-Calculus, Calculus 1 and Calculus 2 course outlines have generic comments that technology will be used. Often that is a graphing calculator. We have a loan program for the TI-84, and they can also be borrowed from the library. Our exams often have a part A (no calculator allowed) and a part B (calculator permitted).

(Costa Karavas, VCC & UCW): At VCC, the short answer is no, nothing is required or prescribed. The longer answer is that faculty have used Matlab, Julia, and other software. At UCW the calculus courses do not require software.

(Gary MacGillivray, UVic): Our linear algebra for engineers uses Matlab. Python is used in a mathematical computing course that is similar to the one at UBC Vancouver.

(Natasha Davidson, Douglas College): Our differential equations course lists that “assignments may incorporate use of software.” In Calculus 1 and Calculus 2 we have required graphing

calculators. We do sometimes have instructors that do not use graphing calculators and then there can be challenges with common final exams.

(Stephen Brown, Okanagan College): Students have labs for Calculus 1 and 2, linear algebra, and differential equations. However, it is not a requirement to pass the lab. We have a Maple institutional license, and nothing else, so it is implied that the software that will be used for labs is Maple, but it is not specified in the course outlines etc.

(Telyn Chan-Kusalik, Alexander College): We use none.

(Alex Liu, KPU): We have only linear algebra and a complex analysis engineering course, as well as a multivariable and vector calculus course that specify software use. In our calculus courses it is optional to use software.

(Sam Pimentel, TWU): At TWU we do not have anything about software use specified in the learning outcomes.

(Tijana Sretenovic, LaSalle College): At LaSalle, students in calculus for business must use Excel, and for calculus for physics there is no mention of software. Linear algebra and applied mathematics courses have no mention of software. We do have a mathematics and physics for games course that requires the use of Java.

(Doug Henderson, Selkirk College): The short answer is no. Software is used for demonstrations and exploration, but is not specified in the course outlines.

(Jason Diemer, NIC): The only two courses that require software are Calculus 1 & 2 and they indicate that a computer algebra system will be used in the lab. This was Maple in the past, but is now Geogebra due to lower cost.

(Ana Culibrk, Columbia College): The only course for us is elementary statistics, which has a lab where Excel is used.

(Patrick Montgomery, Camosun College): Similar to Jason, we use generic language to make constraints of the course outline less problematic.

(Eric Agyekum, VIU): Our statistics courses use R or Excel, but it is the instructor's choice. For math courses, there are no written documents specifying it, but we often use Matlab or Maple.

(Michael Monaghan, SFU): The reason we are asking is that our students learn many analytical solution methods and integration techniques in our courses, but forget them later. We are concerned that students in the future (a year or two later) should at least be able to use some sort of software to do the calculations. We want them to have some basic tools, that require zero programming.

A general discussion followed about what software and technology is appropriate to use and when. Some representatives indicated that students rely on technology to the extent that it inhibits learning. Some instructors stated that students are using it anyway, so it should be

incorporated into courses. Some instructors noted that students will be expected to use software in the workforce, so its use should be part of the learning outcomes for our courses.

(Telyn Chan-Kusalik, Alexander College): My students are more comfortable using web-based apps than a calculator or graphing calculator.

(Costa Karavas, VCC & UCW): How does software use affect exams?

(Michael Monaghan, SFU): We recognize that it is impractical to assess technology use on final exams for most of our math courses, excepting the few courses where software is central.

(Jane Butterfield, UVic): From experience in the Math Learning Center, I see students using AI tools more and more in non-productive ways. One benefit of using software in our classes is to demonstrate appropriate and effective ways to choose and use the technology and software available.

(Deanna Baxter, Capilano University): There are different reasons instructors use software: enhancing understanding (eg. visualizing surfaces), demonstrating how to use it so that students can use it in the future, to ask and answer more interesting questions. Not everything interesting can be solved analytically.

## **11. Stats Break-out Discussion Part 1 (See Stats Subcommittee Minutes)**

Parallel Session #2

1:00 PM

## **12. Math Break-out Discussion Part 2**

### **12.1 Attendance Issues**

(Jennifer Hyndman, UNBC): Raise your hand if your attendance has gone down over the last couple of years. (Nearly all representatives raised their hand)

(Costa Karavas, VCC & UCW): Do your institutions have a policy on attendance? (Only some representatives responded, a few yes but most with no.)

(Stephen Brown, Okanagan College): My participation did go up when I added quizzes to my class.

(Telyn Chan-Kusalik, Alexander College): At my institution there used to be an attendance policy across the board and the administrative staff were responsible for collecting and managing doctor's notes, etc. They dropped the policy during the COVID measures, but the math department later voted to bring it back just for us. We are required to track attendance for immigration reasons. I also found that giving grades for work done in class increased my attendance (eg. 5% of course grade for problems given to do in class).

(Suzanne Feldberg, TRU): We have departmental guidelines that say students should be present at 90% of all class meetings etc. Students can be withdrawn from a course or receive a DNC (did not complete) if they do not attend sufficiently.

(Paul Tsopméné, UBC Okanagan): We have no attendance policy. Some students only show up for exams. In Calculus 1 last term attendance was very low even right from the first class. I've never experienced something like that before. I created videos in the hopes that it would encourage some students to attend. After creating 2 videos I did see new faces in the class and some of them continued attending to the end of the term. Some feedback that I received from students is that they prefer to watch my videos than to try and find good videos on the internet.

(Gera Belchev, Coquitlam College): We also have an attendance policy. The college requires all instructors to take attendance, and we must submit it every week. There used to be a requirement to attend at least 50% of classes in order to write the final exam. Possibly it was not enforced, and only used for extreme cases.

(Patrick Montgomery, Camosun College): We had a discussion at the college recently that resulted in a consensus that we must treat students as adults and if they fail due to attendance issues that is a consequence. It is better to structure course content, activities, and assessments so that students find value in attending. We now have a late withdrawal policy where students can withdraw right up to the final exam without academic consequences.

(Deanna Baxter, Capilano University): We do have an attendance policy, but there are no additional consequences. Some courses will have a participation grade, which is only allowed to be up to 10%. In all our courses we have a missed exam policy, where they must satisfy 4 conditions to qualify for accommodation. Essentially, they must have been fully participating in the course in order to be accommodated for a missed exam. We can pull that clause out if we feel it is not reasonable to accommodate. Ideally, the instructor is engaging enough that students want to attend, or that there is value that they are missing if they miss class, such as frequent assessments. There is the expression: "students have a right to fail" which I agree with, as they are adults. I do post lecture videos and my notes, because we don't want students to come to class when they are sick.

(Tijana Sretenovic, LaSalle College): Deanna, how do you mark your frequent assessments each week? Deanna's answer: They are usually in-class assignments or quizzes, and then I don't assign any out-of-class homework that needs to be marked.

(Tijana Sretenovic, LaSalle College): We do have policies for attendance. One is that if a student misses two consecutive weeks of class they are removed from the college. Sometimes they alternate weeks to avoid this. Attendance is usually good. A past policy was that if a student misses 16 hours or more of a course then they fail. In practice, this means they can't miss 4 or more classes, as there are 44 hours in a course. It was up to instructors whether they want to apply the policy or not. It was recently decided to drop this policy. Another policy that we have is that students fail a course if they miss the final exam or last major assessment. We also give in-class activities for participation marks. My colleagues sometimes do short multiple choice quizzes in Microsoft forms to encourage attendance.



(Deanna Baxter, Capilano University): Why do we care in general if students attend, as long as they are learning? (Group answers: There is a correlation between attendance and success. Instructors feel unmotivated if the class is too small.)

(Suzanne Feldberg, TRU): I had some students who knew the material and would show up but not contribute anything. I also had some students who did not know much and attended only occasionally. Both groups of students negatively impacted the atmosphere in the course.

(Natasha Davidson, Douglas College): At the beginning of my teaching career I looked carefully at all the attributes of my class that I could control or change and what their effects were on student success. I found that attendance was a big one. One strategy that I use to encourage attendance is to put them in groups, as this can make them feel accountable to the group.

(Ana Culibrk, Columbia College): We don't have mandatory attendance, but we have a policy about the proportion of the course grade that can be based on attendance. It is up to 5% for attendance, and up to 10% for participation.

(Brian Wetton, UBC Vancouver): At UBC we had a meeting where we discussed this. There was a strong sense that students are adults and can choose whether to attend or not. However, we are also pressured to keep failure rates in check (below 15%).

(Jennifer Hyndman, UNBC): We have no attendance policy, but I did have a participation grade that is based on easy group activities or quizzes. I do group activities in class, and also talk to students about what it means to be a university student and how there are learning and growth opportunities here that you will not get anywhere else.

(Sandra Merchant, BCIT): It seems like whether or not attendance is an issue and whether you should have a policy can be really context dependent. It depends on what your goals are for the students.

## **12.2 Weight of unsupervised assessments in courses**

(Deanna Baxter, Capilano University): Let's give a show of hands. Is your final exam worth less than 25% of the course grade? (Response: 3 or 4 hands), 25-40% of course grade? (Response: most hands went up), 45-50% of course grade? (Response: only 2 hands)

The Chair now asked representatives to indicate what proportion of a student's course grade is typically "unsupervised" work. This would include homework, lab assignments, unproctored online quizzes, etc.

(Jane Butterfield, UVic): Much of the work I assign is automatically graded. There is online homework, paper homework, and online quizzes. I have found that students are interacting with homework differently from the past, and that whether or not students will choose to outsource the thinking on their work is difficult to predict, as it doesn't seem to be correlated with any of the traditional measures.

(Stephen Brown, Okanagan College): For my courses, 15-20% is unsupervised marks. The rest is exams. I recently simultaneously taught the same course at UBCO (3 contact hours, no lab) and Okanagan College (4 contact hours + lab). I found that the lower number of contact hours made it difficult to do a lot of in-person assessment in the UBCO course

(Deanna Baxter, Capilano University): How many of you have a minimum grade on the final exam that is required to pass the course? (Response: About half of hands were raised. Discussion found that the minimum required grade ranged from 40%-50%).

(Jennifer Hyndman, UNBC): Homework with a grade attached is motivating to students in a way that recommended, ungraded, exercises are not.

(Ben Vanderlei, UFV): Typical for our department is 30% final exam, 40% midterm tests, 20% quizzes. And there is often a minimum of 40% required on the final exam. We also add reflection components into our exams to make it harder for AI to easily answer.

(Deanna Baxter, Capilano University): When we have frequent quizzes, we will often omit the lowest grade.

(Deanna Baxter, Capilano University): What should our expectations be for articulation when a course has a large proportion of unsupervised assessments that could easily be done by someone other than the student, or with assistance. Do we trust them and articulate still?

There was a brief discussion about fully online courses. It was noted that KPU always has one fully online section for any course (even the exams are online) and that Alexander College has some fully online courses with exams invigilated over zoom.

(Natasha Davidson, Douglas College): We can only control so much. You could have a student who just hires someone else to do the entire course for them. There are many different ways to assess understanding and learning, so it can be hard to compare courses.

(Gary MacGillivray, UVic): We have the ability to use the credit transfer system to find out if a particular articulation choice is effective. You can request a report from the registrar's office and look at the data. You can then choose to remove the articulation or investigate further if articulation is not working for a given course.

(Deanna Baxter, Capilano University): One more question: does anyone make the final exam worth 100% if the student does better on it? (Answers were mostly no, but some instructors had similar approaches or partial reweighting schemes in this scenario).

### **13. Stats Break-out Discussion Part 2 (See Stats Subcommittee Minutes)**

Plenary Session #5

2:30 PM

### **14. Reports:**

#### **14.1 Math Challengers – Leo Neufeld (full report included in Supplemental Reports below)**

This is Leo's last year running Math Challengers, a competition for grade 8, 9 and 10 students who excel at math. As a brief summary of his report, Leo noted that the number of participating schools rose this year, to 45 schools at each of the grade levels. Students were also permitted to register as individual competitors. He also noted that both in-person and online versions of the competition continued to be offered. The top schools from each grade level were invited to the Provincial Finals competition, which took place at SFU on May 3<sup>rd</sup>.

On behalf of the entire committee, Susan Oesterle (Douglas College) thanked Leo for his many years of work on Math Challengers and with the BCcupms. This was followed by a standing ovation from the representatives.

#### **14.2 Changing the Culture (Friday, May 17, 2025)**

Susan Oesterle (Douglas College) reminded representatives that the Changing the Culture conference sponsored by PIMS will take place at SFU, Downtown campus, this Friday. It is free, but registration is required. See the website for more information:

<https://www.pims.math.ca/educational/changing-culture>.

#### **14.3 ABE – Costa Karavas (see the report included in Supplemental Reports below)**

#### **14.4 Website Coordinator Update – Stephen Brown**

Stephen announced that this year's website expenses were funded quickly from a few very generous donations on the first day of this meeting. Interested parties can view the funding report on the webpage: <https://bccupms.ca/website-funding/>.

Other announcements from Stephen:

- Website usage statistics indicate that usage is highest in May and the months leading up to it, as representatives use it for meeting planning, but there is also a surge in usage in September.
- The meeting RSVP link worked well, and he recommends we continue to use it for future meetings.
- The most recent draft of the website policy is now posted on the website: <https://bccupms.ca/website-policy/>.
- A link to an account request for My Okanagan Math is posted on the website: <https://imathas.okanagan.bc.ca/newinstructor.php> for any instructor interested in trying it. However, be aware that this server is temporary and will not be available long term.

This was followed by a short discussion of updates to website policy. Natasha Davidson (Douglas College) indicated that the suggested revisions from the previous day of the meeting were made, and that additions were also made to the photography section regarding permission to use photographs.

Deanna Baxter (Capilano University) requested that representatives check their information on the BCcupms website so as to keep the list of representatives up to date.

## **14.5 BCCAT System Liaison – Susan Oesterle**

Susan recently attended a meeting of the B.C. Deans of Arts and Sciences Programs. Issues that were found to be common across the province and that were discussed include:

- Adjusting to the changes in international student regulations
- Artificial intelligence as it relates to academic integrity

Susan also recently attended an articulation season launch meeting hosted by BCCAT. At this meeting it was noted that since our minutes are not posted until they are approved, which doesn't happen until the next meeting (a year later), there is a year delay before the minutes become public. A proposal made is that we approve minutes electronically (eg. by email) more shortly after the meeting.

The committee members discussed this possibility, and the logistics involved in approving minutes by email, for both the statistics subcommittee minutes (approved only by those in attendance at the statistics parallel session) and the full meeting minutes (to be approved by all those in attendance at the meeting).

Jennifer Hyndman (UNBC) suggested that a procedure should be written and approved for email voting, or any other electronic means of voting, before we can agree to approve minutes this way.

Susan Oesterle (Douglas College) agreed to contact BCCAT for more information about their needs, to find out how other articulation committees approve their minutes, and to determine whether posting the unapproved minutes on the BCcupms webpage would suffice.

## **15. New Business:**

### **15.1 Highlights from parallel sessions**

#### **15.1.1 Statistics Highlights – Bruce Dunham**

On behalf of the statistics subcommittee, Bruce thanked Susan Chen (Camosun College) for her work as Secretary the past two years. Everyone is delighted that Emelie Lee (Okanagan College) has stepped up to be new secretary for the statistics subcommittee.

Bruce reminded members that statistics institutional reports should be sent to Emelie Lee (Okanagan College) in the next week.

#### **Highlights from the open discussion:**

- There is currently a trend for introducing new data science courses.
- There are many introductions of microcredentials arising in data science and these may possibly be articulated in the future.
- If an institution feels that they have a statistics course that is not articulating as they expect or want, the best approach is to directly approach the BCcupms statistics representative

from the other institution. This will likely be more productive than just submitting an articulation request as a shot in the dark.

- There was a discussion of what are useful skills for students. Main points:
  - Excel has useful features, but is not a statistical package, and is not a good choice for statistics courses.
  - There is a big move in statistics to perform reproducible analyses, which is another reason that Excel is not ideal.
  - With regards to using R for statistics, they expect that more institutions in the future will be allowing R access on the cloud. In that case students can access R without needing to install anything.
  - There was a lengthy discussion about teaching the z-test for means. Since, in reality one never knows the population standard deviation, why teach it? It was noted that there is a move in textbooks to do tests for proportions first, use these to introduce the z-test, and then segue into population means.
  - There was a discussion about the obsolescence of paper tables. It was generally agreed that there is no strong argument for their use. Some tactics that were suggested to avoid their use on tests are:
    1. Simply give the p-values or critical values in the question.
    2. Use multiple choice with p-value options where only one of them is remotely possible.
    3. Get students to sketch the distribution, and don't ask them for the specific number.

### 15.1.2 Mathematics Highlights – Deanna Baxter

Deanna summarized the three main discussions undertaken:

1. **Software used for lower-level math courses.** The discussion found that there is great variability between institutions in the role of software in lower-level math courses. Although software use by students is common, most institutions leave the choice of software, or even whether to use any software at all, up to the instructor. A few institutions do specify in course outlines that software use is required, and very few specify which software packages will be used.
2. **Attendance issues.** Many representatives indicated that attendance in their classes has not returned to pre-pandemic levels, and that students are overall less engaged in class. We discussed strategies for improving attendance. These included: more in-class assessments, group work, participation marks, and institutional or program attendance policies. We also discussed whether institutions had attendance policies and whether or not these policies were enforced.
3. **Weight of unsupervised assessments in courses.** There was a discussion about what proportion of a course grade is typically based on in-person, supervised assessments (eg. exams and quizzes) versus take home or unsupervised work (eg. homework). The majority of institutions reported that final exams were typically worth 25%-40% of the course grade, and only a few had final exams worth less than 25% or more than 40%. The proportion of

the grade attributed to unsupervised work varied much more, from entirely unsupervised (eg. fully online courses) to entirely supervised, but most answers were in the 10-30% range for unsupervised work.

### 15.2 Current practices regarding AI use in courses

It was determined by the committee that there was insufficient time remaining in the meeting to have a substantial discussion on this topic, so instead two quick polls were conducted:

1. How many people encourage AI use in their classes? Only 2-3 hands were raised.
2. How many people ban using AI in any way? Again, only 3-4 hands were raised.

The Chair expressed the committee's appreciation to Okanagan College for hosting and to Stephen Brown and Emelie Lee for their work organizing this year's meeting.

**Motion** (Jennifer Hyndman, UNBC): To adjourn the 103<sup>rd</sup> BCCupms. **Seconded** (Alexandra Blair, NIC).  
**Passed unanimously.**

Adjourned 3:30 PM

## Meeting with High School Teachers

4:00 PM

### Introductions

Introductions were made around the table, as we were joined by three High School Math teachers from the Penticton area: Andy Botero, Chris Becker and Shona Becker.

### 16. Reports:

#### 16.1 BC Secondary Schools Math Contest – Suzanne Feldberg (full report included in Supplemental Reports below)

The BC Secondary Schools Math Contest has been going for over 40 years and is intended to be a fun and inspirational contest for students. Suzanne gave a brief summary of the BC Secondary Schools Mathematics Contest report. Highlights of the report:

- This year had 9 participating institutions.
- The preliminary round, which takes place in high schools, included nearly 1100 students from across the province.
- The final round was held at the nine participating institutions and included nearly 500 students.
- Suzanne thanked everyone who contributed to this year's contest, with special thanks to Josh Sorge, Kyle Schlitt, Paul Ottaway, Marsha Anderson, Lisa Lajeunesse, Deanna Baxter, Lily Yen, Sean McGuinness, Vincent Yeung, Satoshi Tomoda and Vanessa Radzimski.

Suzanne informed the committee that her colleague Ihor Stasyuk will be taking over as Contest Organizer in future years. The BC Secondary School Math Contest organizers are always looking for contributors and editors, so if you are interested in helping you can email Ihor at [istasyuk@tru.ca](mailto:istasyuk@tru.ca).

#### **General Discussion:**

Suzanne Feldberg (TRU) added a few additional comments. First, that the contest organizers have been observing over the years that there is less and less that can be expected in terms of common math curriculum, which makes it more challenging to create the contest problems. Second, the contest problems are published on the BC Secondary Math Contest website: <https://mathcontest.trubox.ca/>.

Deanna Baxter (Capilano University) commented that this year's questions were very good in terms of variability, difficulty level, discrimination/tie-breaker ability, etc.

The High School teachers in attendance thanked Suzanne for her work with the contest and made several comments about how successful and enjoyable the contests have been for their students.

#### **16.2 Calculus Challenge Exam – Bruce Dunham on behalf of Brian Wetton**

The Calculus Challenge Exam (CCE) is composed and hosted by UBC (Vancouver). Students that score over 50% on the exam are entitled to credit with a grade for the first term of calculus at participating BC universities. The cost is \$100, and the exam has no risk, in that successful students have the choice of applying for the credit and grade or not. This year's exam will take place on Wednesday June 11<sup>th</sup>. For more information, see the website: [https://outreach.math.ubc.ca/calc\\_challenge.html](https://outreach.math.ubc.ca/calc_challenge.html).

#### **Discussion:**

There was some discussion about which institutions accept the CCE for credit and a grade. The website indicates that the participating institutions are Simon Fraser University, Trinity Western University, the University of British Columbia, the University of Northern British Columbia, the University of the Fraser Valley, and the University of Victoria. However, some members indicated that their institution was not on the list (eg. Douglas College) but does accept the CCE. Institutions are recommended to check with their articulation officers to determine if the CCE will be recognized, and contact Brian Wetton at [wetton@math.ubc.ca](mailto:wetton@math.ubc.ca) if the CCE website needs to be updated.

Jennifer Hyndman (UNBC) indicated that UNBC has dual credit for some courses, meaning that students can get credit simultaneously for a course at high school and at university, and enquired about which other institutions have dual credit courses. The representatives from Douglas College, North Island College, and Thompson Rivers University all indicated they have these type of dual credit courses. It was noted that this is another means for high school students to get a head start or to sample a university course.

Susan Oesterle (Douglas College) indicated that they have agreements for dual credit with some local high schools for introductory statistics, biology (anatomy & physiology), and sports science

courses. The local high school teachers indicated they have some dual credit courses, but only for computer science or computer programming.

## **17. Open Discussion:**

(Costa Karavas, VCC & UCW): I have a question for the teachers: Last year the AMT president Chris Hunter indicated that high school students are experiencing higher levels of anxiety. Do you also observe this? Answer: Yes, it is 100% a problem. Our current cohort of students have no resilience. They are not obviously experiencing more stress than in the past, but they don't have the skills to deal with it. We think the higher entrance requirements may be adding to the stress.

(Natasha Davidson, Douglas College): Students don't have a chance to fail until grade 9 or 10 now. Why would anyone be surprised that resilience has not developed by high school? They have not had enough opportunity to experience failure and recovery before then.

(High School Teachers, Penticton area): What are you seeing in post-secondary? Are students less resilient? If they aren't successful in semester 1, do they drop out, or battle through a second semester and recover?

(Jennifer Hyndman, UNBC): We are seeing large increases in mental health disorders (anxiety, learning disabilities, etc.) at our institution. This is in some ways a success because more such students are making it to university. On the other hand, it is a challenge to support them. We find the biggest attrition is from semester 1 to semester 2. There is smaller, but still substantial attrition from semester 2 to 3.

(Natasha Davidson, Douglas College): In one of my courses this past semester, the anxiety level was higher overall due to world events, but it seemed like my older students had more habits of practice that allowed them to persist and recover from failures.

(High School Teacher, Penticton area): I think we now have a system where we switch students to a different course that might "work better for them," rather than retry the same course.



## List of Committee Members Present (X - in person, O - online)

Note that Math/Stat refers to the Mathematics and Statistics parallel sessions, respectively

Name	Affiliation	May 13		May 14				
		AM	PM	AM	Math	Stat	PM	With Teachers
Telyn Chan-Kusalik	Alexander College	X	X	X	X		X	X
Rob Fleming	BCCAT			X				
Sandra Merchant	BC Institute of Technology (BCIT)	X	X	O	X		X	X
Simin Jolfaee	BC Institute of Technology (BCIT)			X		O		
Leo Neufeld	Camosun College/Math Challengers			O	O		O	
Patrick Montgomery	Camosun College	O	O	O	O		O	
Susan Chen	Camosun College			O		O	O	O
Deanna Baxter	Capilano University	X	X	X	X		X	X
Mahshid Atapour	Capilano University			O		O		
Shiva Gol Tabaghi	Capilano University			O		O	O	
Andrea Hyde	College of the Rockies	X	X	X		X	X	
Ana Culibrk	Columbia College	O	O	O	O		O	
Gera Belchev	Coquitlam College	X	X	X	X		X	X
Hamid Maghzian	Corpus Christi College	O	O	O	O		O	O
Allan Majdanac	Douglas College			O		O		
Natasha Davidson	Douglas College	X	X	X	X		X	X
Susan Oesterle	Douglas College (Systems Liaison)	X	X	X	X		X	X
Alex Liu	Kwantlen Polytechnic University (KPU)	X	X	X	X		X	
Eugene Belchev	Langara College	X	X	X	X		X	X
Maja Grubisic	Langara College	X	X	X		X	X	
Tijana Sretenovic	LaSalle College Vancouver	O	O	O			O	
Hongbin Cui	Northern Lights College	O	O	O	O			
Alexandra Blair	North Island College (NIC)	X	X	X		X	X	X
Jason Diemer	North Island College (NIC)	O	O	O	O		O	
Emelie Lee	Okanagan College	X	X	X		X	X	X
Stephen Brown	Okanagan College	X	X	X	X		X	X
David Leeming	PIMS – University of Victoria (UVic)			O				
Doug Henderson	Selkirk College	O	O	O	O			
Harsha Perera	Simon Fraser University (SFU)	O		O		O	O	
Michael Monagan	Simon Fraser University (SFU)	X	X	X	X			
Mateen Shaikh	Thompson Rivers University (TRU)	X	X	X		X	X	X
Suzanne Feldberg	Thompson Rivers University (TRU)	X	X	X	X		X	
Sam Pimentel	Trinity Western University (TWU)	O	O	O	O		O	
Paul Tsopméné	UBC Okanagan	X		X	X		X	X
Brian Wetton	UBC Vancouver	X	X	X	X			
Bruce Dunham	UBC Vancouver	X	X	X		X	X	X
Costa Karavas	University Canada West (UCW)	X	X	X	X		X	X
Jennifer Hyndman	University of Northern BC (UNBC)	X	X	X	X		X	X
Ben Vanderlei	University of the Fraser Valley (UFV)	X	X	X	X		X	X
Gillian Mimmack	University of the Fraser Valley (UFV)			O		O		
Gary MacGillivray	University of Victoria (UVic)	X	X	X	X		X	
Jane Butterfield	University of Victoria (UVic)	X	X	X	X		X	X
Mary Lesperance	University of Victoria (UVic)			O		O		

Costa Karavas	Vancouver Community College (VCC)	X	X	X			X	X
Natasha Mandryk	Vancouver Community College (VCC)	X	X	X		X	X	X
Eric Agyekum	Vancouver Island University (VIU)	O	O	O	O	O	O	O

## Supplemental Reports

### BC Secondary School Mathematics Contest, 2025

#### Report to the BCCUPMS

Near March 5, 2025 the Preliminary Round of the BC Secondary School Mathematics Contest was written at schools.

On May 2, 2025 the Final Round of the BC Secondary School Mathematics Contest was written at nine provincial colleges and universities.

#### Reporting institutions are:

Capilano University (North Vancouver)	(CapU)
Coast Mountain College (Prince Rupert)	(CMTN)
Douglas College (New Westminster)	(Douglas)
Langara College (Vancouver)	(Lang)
North Island College	(NIC)
Okanagan College / UBC Okanagan (Kelowna)	(OC/UBCO)
Thompson Rivers University (Kamloops)	(TRU)
University of the Fraser Valley (Abbotsford)	(UFV)
Vancouver Island University (Nanaimo)	(VIU)

The table below gives a summary of the number of students and the top scores (out of a possible 60) on the Preliminary Round at each institution that reported the Preliminary Round.

Institution	Preliminary Round		Top Three Scores		Averages	
	Juniors	Seniors	Junior	Senior	Junior	Senior
CapU	73	69	60, 60, 55	60, 55, 55	30.3	26.3
CMTN	19	13	35, 32, 31	46, 39, 31	32.7	38.5
Douglas	72	38	55, 55, 55	50, 40, 34	30	28
Langara	No info	No info	No info	No info	No info	No info
NIC	106	53	40, 40, 36	37, 32, 31	23.2	20.1
OC/UBCO	~75	~80	No info	No info	No info	No info
TRU	93	64	38, 37, 35	45, 41, 34	~20	~18
UFV	79	40	35, 35, 34	43, 37, 33	20.45	19.9375
VIU	75	135	50, 36, 35	37, 36, 35	17.88	18.02
TOTAL	592	492	60, 60, 55	60, 55, 55	24.9	24.1

The table below gives a summary of the number of students and the top scores (out of a possible 100) on the Final Round at each institution that reported the Final Round.

Institution	Final Round		Top Three Scores		Averages	
	Juniors	Seniors	Junior	Senior	Junior	Senior
CapU	19	17	87, 85, 83	95, 87, 86	50.7	50.2
CMTN	6	6	43, 39, 37	46, 38, 28	31.2	29.5
Douglas	29	13	93, 86, 82	87, 76, 68	55.6	49.6
Langara	85	52	95, 90, 87	100, 88, 87	45	34
NIC	20	9	57, 56, 54	63, 57, 43	38.6	39.5
OC/UBCO	38	33	85, 59, 56.5	86, 79, 58	38.36	30.76
TRU	34	20	69, 66, 59	88, 68, 63	33.12	35.95
UFV	15	24	56, 44, 42	48, 48, 38	33.4	25.2
VIU	35	31	69, 66, 61	62, 61, 58	34.66	29.71
TOTAL	281	205	95, 93, 90	100, 95, 88	40.1	36

A total of 486 students, from the nine reported institutions, participated in the Final Round. Additional information from UFV is expected soon.

The top reported Junior and Senior scores in the Final Round were 95 and 100, respectively, out of 100, with averages from 31.2 to 55.6 for the Junior and from 25.2 to 50.2 for the Senior Contests. The provincial average was 40.1 on the Junior and 36 on the Senior Contest.

This report will be posted on the BCSSMC web site: <https://mathcontest.trubox.ca>.

For those planning for next year, the dates we are suggesting for the 2026 contest are:

**Preliminary Round: Near March 4, 2026**

**Final Round: May 1, 2026**

All help is welcomed whether in the form of suggested problems, feedback, solutions and LaTeX typesetting! Please contact Ihor Stasyuk [istasyuk@tru.ca](mailto:istasyuk@tru.ca) if you are interested.

The Math Contest website is <https://mathcontest.trubox.ca>. On it you will find the most recent provincial summaries, and previous contest papers dating back to 1999.

Special Thanks to Lily Yen (CapU), Vincent Yeung (Lang), Paul Ottaway (CapU), Suzanne Feldberg (TRU) and Sean McGuinness (TRU) for creating the first drafts of the contest at the Brainstorming Session.

Special Thanks to Lily Yen (CapU), Satoshi Tomoda (OC), Kyle Schlitt (TRU) and Vanessa Radzimski (UFV) for their help in writing and revising solutions.

Special Thanks to Marsha Anderson (CapU), Paul Ottaway (CapU), Lisa Lajeunesse (CapU) and Joshua Sorge (TRU) for proofreading solutions.

The top students at the Junior and Senior levels at each centre are given below. Note that participants were asked to submit a Freedom of Information Protection of Privacy Consent form in order for their names to be reported.

Report updated on June 2, 2025 by  
Ihor Stasyuk  
Department of Mathematics and Statistics  
Thompson Rivers University

## ADULT BASIC EDUCATION MATHEMATICS WORKING GROUP REPORT

### **PRESENTED TO THE BCCUPMS MEETING, MAY 13-14, 2025 AT OKANAGAN COLLEGE, PENTICTON CAMPUS**

presented by Costa Karavas (co-chair ABE Math Working Committee)

Meeting: Adult Basic Education Mathematics Working Group

Date of meeting: March 6-7, 2025.

Location: Vancouver Island University

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#### **1 . Adult Basic Education Articulation - Purpose and Goals**

- i) Exchange information and enhance cooperation and coordination among institutions in Adult Basic Education courses.
- ii) Promote course and program equivalency.
- iii) Contribute to the facilitation of inter-institutional transfer credit agreements.

Adult Basic Education (ABE) working groups function as BCCAT articulation committees and exist for a number of disciplines. Each working group reports to the Adult Basic Education Steering Articulation Committee. Working group chairs attend the meetings of both their working group and the steering committee each year.

The ABE Steering committee articulates courses in various subjects and levels against well-defined learning outcomes contained within the ABE Articulation Handbook. This handbook is published digitally each year by the Ministry of Post-Secondary Education and Future Skills and is available on the BCCAT website.

#### **2. Reports and Presentations**

- i) BCCUPMS report – Costa Karavas
- ii) BCCAT report - Mike Winesmann
- iii) PSFS Ministry report -Heather Collins, Senior Policy Advisor with Ministry of Post-Secondary Programs Branch

- iv) ABE Steering Committee report -Stephanie Boychuk
- v) Presentation on Artificial Intelligence in the Teaching and Learning of Mathematics (Costa Karavas)
- vi) Institutional reports from all colleges/universities offering ABE programs.

### 3. Learning Outcomes, Textbooks and AI

- i) Comprehensive review of learning outcomes and articulation/re-articulation for Advanced level (equivalent to Foundations Math 11)
- ii) Challenges of finding all -in-one OER textbook/resources.
- iii) Gen-AI challenges in assessments

### Math Challengers Report to the BCcupms – 2025

Math Challengers (MC) is a competition for Grade 8, 9 and Grade 10 students who love math and excel in doing it.

This year about **993** students participated at the Regional level, which was down significantly from 2024, while the number of schools rose slightly. Grade 8 teams registered from **45** different schools, Grade 9, from **45** schools and Grade 10, from **45** schools. Students are also permitted to register as individual competitors. One student from India registered online this year.

Registration Data for Math Challengers Regional Competitions										
	Lower Mainland		Vancouver Island		Okanagan		Fraser Valley		Online	
<b>Grade 8</b>	<b>2024</b>	<b>2025</b>	<b>2024</b>	<b>2025</b>	<b>2024</b>	<b>2025</b>	<b>2024</b>	<b>2025</b>	<b>2024</b>	<b>2025</b>
Schools	25	20	9	9	4	5	2	0	11	11
Teams	71	37	23	18	6	11	8	0	14	16
Competitors	282	170	103	76	24	45	32	0	61	69
<b>Grade 9</b>										
Schools	25	26	4	6	6	4	0	0	9	9
Teams	56	42	9	12	11	4	0	0	16	12
Competitors	221	190	41	50	44	18	1	0	65	51
<b>Grade 10</b>										
Schools	22	26	3	5	4	5	0	0	9	9
Teams	53	48	7	9	4	5	0	0	13	12
Competitors	208	218	35	35	16	21	0	0	54	50

**In-person**, the competition has 4 stages: two individual written stages, one team session and the final (Face-off) one-on-one stage for the top 10 students. **Online**, the Face-off Stage is run first and is open to all registered students. The other three stages are run in participating schools.

**From both In-person and Online**, the top schools from each grade level are then invited to the Provincial Finals competition, which was held at SFU (Burnaby) on May 3rd this year. A travel subsidy is offered to schools in the outlying regions.

At the Regionals, plaques are awarded to top individuals and schools. Medals for Finalists, the

top ten students in each pool, are presented, signifying an automatic invitation to the Finals. On Vancouver Island, the PIMS Medal, which recognizes the top student in each grade from a participating school, is also awarded.

Competition planning for 2026 is already underway. The Online competition, initiated during the COVID era, continues to be offered. For schools far away from an MC regional centre, this is an excellent way to enable keen math students to access the MC experience.

MC is sustained by dedicated volunteers and committed teacher coaches, as well as by financial assistance from organizations like PIMS, BCHydro, IBM and EGBC. UBC, SFU, BCIT, Camosun College, Okanagan College and UFV provide generous competition-site hosting.

Regions, besides the main competition site on the Lower Mainland, are Lower Vancouver Island, the Okanagan and the Fraser Valley. Regional organizers are **Satoshi Tomoda** (Okanagan) and **Ian Affleck** (UFV). Colleges and universities are ideal sites for hosting MC.

If you wish to open an MC Regional in your area, the MC Society offers significant support in training and start-up assistance for first-time sponsors. When you meet with teachers in your area, please urge them to invite their eager math students to join the **MC Online** competition.

MC website: <http://mathchallengers.ca/>

Leo Neufeld: [leoneufeld@shaw.ca](mailto:leoneufeld@shaw.ca)

May 14, 2025

## PIMS Education Associates Report to the BCcupms – 2025

### Background

The PIMS Education Associates program was an initiative of Ivar Ekeland, then PIMS Director, in 2008. Former PIMS Director Alejandro Adem was a great supporter of PIMS initiatives in math outreach and is responsible for the current model of the PIMS Education Associates. The Program was designed to provide a PIMS affiliation to Colleges and Universities in BC and Alberta that did not have one already, e.g. as research institutions. Since many of these institutions were already engaged in Math outreach in their communities, supporting them in their efforts was a natural approach.

Currently, there are twelve Associates in BC and four in Alberta. Each Associate institution is entitled to claim up to \$500 annually in receipted expenses related to math outreach events in their region. Three PIMS Education Associates in BC accessed PIMS funding for their outreach programs. In total, about 1200 school students were involved in the various math outreach programs in BC in the last year whether or not PIMS provided financial support.

### PIMS Education Associates in BC

Camosun College

College of the Rockies

Coast Mountain College	Douglas College
Capilano University	Langara College
Okanagan College	Selkirk College
Thompson Rivers University	University of the Fraser Valley
North Island College	Vancouver Island University

#### **PIMS Education Associates in Alberta:**

Red Deer Polytechnic	MacEwan University
Mount Royal University	Concordia University Edmonton

#### **Reports from the BC PIMS Education Associates**

Note: These reports may present in an uneven style. They are given here essentially as they were written by each Associate contact.

#### **Camosun College**

During 2024, the Department of Mathematics and Statistics at Camosun College supported student outreach at a few levels. The signature Math Challengers event was supported on campus, with 161 students hosted from 14 different schools in the area. Twenty-two PIMS Medals were awarded (This medal is sponsored by PIMS and recognizes the top student in a school from each of its grades at Math Challengers).

Pi Day activities, also supported by PIMS funding, was celebrated through student contests and leveraging the culinary program with pies baked by our own students. Also, several visits to a local middle school were made in support of math enrichment.

#### **Coast Mountain College, Prince Rupert Campus**

Coast Mountain College proudly hosted the 2025 BC Secondary School Mathematics Contest (BCSSMC) on 2<sup>nd</sup> May, 2025, bringing together talented young mathematicians from the region in both Junior (Grades 8–10) and Senior (Grades 11–12) divisions. The contest saw enthusiastic participation from a range of local schools, with 19 students writing in the Junior preliminary round and 13 in the Senior preliminary round. After a competitive preliminary phase, the top students advanced to the finals, where six students in each category competed. The average final scores were 31.2% for Juniors and 29.5% for Seniors.

We gratefully acknowledge **Prince Rupert Grain** for generously sponsoring the prizes for 1st, 2nd, and 3rd place winners in both the Junior and Senior categories. Special thanks also go to **PIMS (Pacific Institute for the Mathematical Sciences)** for providing custom-designed t-shirts that added excitement and unity to the event. Additionally, the **Academic Workers Union – FPSE Local 11 (AWU)** offered their support by sponsoring lunch for all student participants on the final day.

We extend our deep appreciation to Coast Mountain College for organizing and hosting the event, making it a meaningful and memorable experience for all involved. And finally, we would like to thank the schools who participated in this contest



**Douglas College**

No activities to report.

**Langara College**

On Feb 28, Langara College hosted the Vancouver District Science Fair for the 11th consecutive year. We had speakers from outside of the Langara Community, and that made it easier on our faculty.

On April 3rd Langara held its very first Open House (LangaraFest). With more than 2500 people in attendance, it was a great success.

On May 3, the Department hosted the annual math contest for HS students, and it was another great success. Nine schools/organizations participated: Britannia, Churchill, David Thompson, Jules-Verne, Killarney, Math Olympiad Training, Notre Dame, Tupper, and Vancouver Tech. A record number of 137 students wrote the contest: 85 junior, 52 senior. The event included eight concurrent breakout sessions offered by various departments: MATH, PHYS, CHEM, BIOL, BINF, DANA, CPSC, KINS. The top 3 senior scores were 100, 88, 87, and the top 3 junior scores were 95, 90, 87.

In addition, the department again facilitated the AMC\* series: AMC 10/12 A - 26 students; AMC 10/12 B - 26 students; AMC 8 - 25 students; AIME\*\* 1 - 3 students. \*AMC = American Mathematics Competition (grades 10 and 12), \*\*AIME = American Invitational Mathematics Exam

**Okanagan College**

At Okanagan College, we have hosted

Math Challengers on Friday, Feb. 21 (around 80 participated), partially funded by PIMS Education Associates fund.

Math Kangaroo Contest on Sunday, Mar. 23 (around 50 participated), and

Math Contest (BCSSMC) on Friday, May 2 (there were 71 participants).

Some of us have visited the local schools to promote mathematics as well.

Thank you to PIMS for your continuing support on our outreach activities.

**Selkirk College**

No activities to report

**Thompson Rivers University**

TRU will be hosting the BC Secondary School Math Contest on Friday, May 2. We expect 11 schools and 60 students. We had 156 students from 11 schools write the preliminary round.

Here are the numbers for each round and each section of the BCSSMC contest.

Preliminary Round: 121 Juniors, 135 Seniors

Final Round: 31 Juniors, 22 Seniors, 13 Teachers.

### **University of the Fraser Valley**

This year we've organized three Math Mania events.

Here are details of each:

Haztic Elementary (Mission), Oct 16, 2024

Student volunteers: 13 and student guests 2

Employee volunteers: 5 and employee guests 2

Total guests (students + parents): 35

Vedder Elementary (Chilliwack), Feb 5, 2025

Student volunteers: 17 and student guests 1

Employee volunteers: 6 and employee guests 1

Total guests (students + parents): 55

Noel Booth Elementary (Langley), May 14, 2025

Total volunteers: 14

Total guests (students + parents): 30

This was our first year hosting this Math Kangaroo contest and we drew approximately 70 students. It was quite a strong group. There were 4 national gold medalists in the contest who wrote at UFV.

We held our sitting of the BCSSMC on Friday (May 2) and hosted 40 students from six Fraser Valley schools. I will also note that we again had to cancel our planned sitting of the Math Challengers contest in February due to very low registration numbers.

### **Vancouver Island University**

We again hosted the regional sitting of the BC Secondary Schools Math Contest. We had about 100 students here on Friday May 3 from 9:00 to 1:30. In addition to the contest itself, we had a lunch followed by a math talk. We will be doing the same again this Friday May 2.

On Saturday October 5 we had a math table at 'VIU Fest', a drop in event for the public to see what goes on at campus. We had a number of math themed games and challenges which proved very popular with young kids (who knew!). We had about 50 drop by and try out the different activities.

**Thank you** to those PIMS Education Associates in BC who are taking the time to do Math outreach. For those providing numbers of participants for their various events there were around 1,200 students involved in math outreach activities in BC. Patrick Montgomery and Leo Neufeld (Camosun College), Reefat (Coast Mountain College), Natasha Davidson (Douglas College), Eugene Belchev (Langara College), Satoshi Tomoda (Okanagan College), Doug Henderson (Selkirk College), Ben Vanderlei (University of the Fraser Valley), Glen Pugh (Vancouver Island University).

Respectfully submitted,

David Leeming  
Professor Emeritus, Mathematics, UVic  
PIMS Education Associates Liaison

## BCCUPMS Institutional Reports 2025 – Math

**Institution:** [Alexander College](#)

**Representative providing this report:** [Telyn Chan-Kusalik](#)

**Email address of representative providing this report:** [t.kusalik@alexandercollege.ca](mailto:t.kusalik@alexandercollege.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[None at this time](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[As a private college which attracts mostly international students, we have seen a decrease in enrollment this year due to the changes made to the international student caps by IRCC. Enrollment peaked at 5240 in Spring 2024, dropping to 5016 in Fall 2024, and 4524 in Winter 2025. We expect to see a continued decrease in enrollment as the newer cohort of students is smaller than previous cohorts.](#)

[The total number of Math/Stat sections offered has also decreased taking into account this decrease in enrollment. In Winter 2025 we offered 21 sections vs 27 sections in Winter 2024.](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[We offered STAT 270 \(introduction to Probability and Statistics\)- a calculus-based introductory statistics course for the first time in Spring 2023 and we continue to offer this course every term since then.](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[There isn't any major concern or issue related to articulation.](#)

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[Nothing to report](#)

**6. Do you have any other news that you'd like to share about your department or institution?**

- Overall, the program GPA of graduates from Alexander College has increased, from 2.40 in the 2020 calendar year, to 2.47 in the 2024 calendar year. For the Fall 2024 term, the program average is 2.50.
- Effective October 13, 2024 for Winter 2025 onwards – exclusively online asynchronous courses are not accepted for the purpose of reinstatement from academic suspension.
- As of Spring 2025, a minimum grade of C- is required for any course at Alexander College to be used as a prerequisite. For most math courses being used as prerequisites for higher-level math courses a stricter standard of C was already in place. However, this will affect math/stat courses being used as prerequisites for science/business courses at Alexander College.

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**Institution:** [British Columbia Institute of Technology](#)

**Representative providing this report:** [Sandra Merchant](#)

**Email address of representative providing this report:** [smerchant3@bcit.ca](mailto:smerchant3@bcit.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[None.](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Overall enrolment did not change substantially this past year. However, there has been a reduction in international student enrolment and in particular a large decrease in new international student enrolment that is expected to lead to further reduced enrolment in future years.](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[As an overall cost-reduction process there are cuts happening in many of our programs, but we still don't know the full impact of these cuts in terms of mathematics courses, as each of the programs we teach into establish their own approach to cost savings. Also, there is an overall, slowly implemented, initiative to reduce the number of credit hours in programs which in some cases involves reducing foundational courses like math.](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No.](#)

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[None.](#)

**6. Do you have any other news that you'd like to share about your department or institution?**

None.

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**Institution:** [Camosun College](#)

**Representative providing this report:** [Patrick Montgomery](#)

**Email address of representative providing this report:** [montgomeryp@camosun.ca](mailto:montgomeryp@camosun.ca)

- 1. Do you have any announcements of new hires or retirements that you'd like to share?**

[We have had one retirement this year, Laura Shepherd, after 20 years with the college.](#)

- 2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[As with most institutions in the province, the drop in international student enrollment is having wide-ranging impacts. Camosun College continues to grapple with the budget imbalance through reducing employees at all levels, including faculty.](#)

- 3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[Nothing of relevance this year](#)

- 4. Are there any concerns or issues related to articulation that you'd like to share?**

[Nothing of direct relevance this year](#)

- 5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[The highlight of Math Challengers continues to be a signature event for the department and the alumni that organize this event.](#)

- 6. Do you have any other news that you'd like to share about your department or institution?**

[Our college has undergone an academic restructure with the goal of balancing academic units \(schools\). With some reshuffling, the Department of Mathematics and Statistics has moved from the School of Arts and Science to the School of Science, Technology, Engineering and Mathematics. The Schools of Trades and Technology, Access, and Arts & Science have been rebranded and renamed.](#)

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**Institution:** [Capilano University](#)

**Representative providing this report:** [Deanna Baxter](#)

**Email address of representative providing this report:** [dbaxter@capilanou.ca](mailto:dbaxter@capilanou.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

We are currently hiring an RPT-6 to replace Ahmad Mokhtar who is leaving for a research position at University of Melbourne.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

We saw an increase in enrollment in 2024-2025, but anticipate a sharp decline due to decreasing international students starting in 2025-2026. Our domestic enrollment is increasing mainly due to our recently launched BSc - General and our upcoming launch of a Bachelor of Environment and Society program which includes a science stream.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

An interdisciplinary Bachelor of Environment and Society which has an Arts stream and Sciences stream is set to launch in Fall 2025.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

We host the BC High Schools Math Contest every year and also hold two SNAP Math Fairs, one in the fall term and one in the spring term, every year.

**6. Do you have any other news that you'd like to share about your department or institution?**

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**Institution:** [College of the Rockies](#)

**Representative providing this report:** [Andrea Hyde](#)

**Email address of representative providing this report:** [ahyde@cotr.bc.ca](mailto:ahyde@cotr.bc.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

No

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

We don't expect any significant changes in our math courses. We have only been offering first year math and stats, with the exception of Linear Algebra for our engineering program and we expect this to continue.

We anticipate a decrease in the number of students in our first year business statistics course, Stat 106, as business is losing enrolment from international students. We are running one fewer section now as compared to pre-2022 levels, but will be allowed to continue at this level of offering for the 25/26 academic year.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No

4. Are there any concerns or issues related to articulation that you'd like to share?

We've revised our Calc 3 and 4 outlines in the past year. Please be sure to review any articulation requests you have from us!

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

No

6. Do you have any other news that you'd like to share about your department or institution?

No

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Institution: [Columbia College](#)

Representative providing this report: [Ana Culibrk](#)

Email address of representative providing this report: [aculibrk@columbiacollege.ca](mailto:aculibrk@columbiacollege.ca)

1. Do you have any announcements of new hires or retirements that you'd like to share?

No

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

The number international of students is in decline. We have very few domestic students.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No

4. Are there any concerns or issues related to articulation that you'd like to share?

Nothing apart from the decline in students numbers.

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

Nothing new to report.

6. Do you have any other news that you'd like to share about your department or institution?

No

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**Institution:** [Coquitlam College](#)

**Representative providing this report:** [Gera Belchev](#)

**Email address of representative providing this report:** [gbelchev@coquitlamcollege.com](mailto:gbelchev@coquitlamcollege.com)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Yes.](#)

[The majority of the students in the college are international students enrolled in the AA degree program and the new government rules has affected significantly the enrolment of the new students to the college. So far, no math instructors were laid off, but few had their load reduced for the summer semester. Unfortunately, we expect more sections to be cut in the fall semester.](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[No](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No](#)

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[No](#)

**6. Do you have any other news that you'd like to share about your department or institution?**

[No](#)

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**Institution:** [Corpus Christi College](#)

**Representative providing this report:** [Hamid Maghzian, Ph.D.](#)

**Email address of representative providing this report:** [hmaghzian@corpuschristi.ca](mailto:hmaghzian@corpuschristi.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No new hires in Mathematics. There is a new faculty member in Economics and Business.](#)



2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

No significant enrollment changes this year.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No new Mathematics course.

4. Are there any concerns or issues related to articulation that you'd like to share?

Nothing to note!

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

The College planned a large conference in May “The Promise of Christian Education: Past, Present and Future”, which attracted scholars from an array of Canadian and international universities and colleges.

6. Do you have any other news that you'd like to share about your department or institution?

Nothing to note!

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**Institution:** Douglas College

**Representative providing this report:** Natasha Davidson

**Email address of representative providing this report:** davidsonn@douglascollege.ca

1. Do you have any announcements of new hires or retirements that you'd like to share?

Muhammad Usman is a new hire who started in the Fall of 2024, he goes by Usman. We also newly hired Muhammad Awais to start in Winter 2025. Elaine Lin who has taught many math courses for us and ran the Math Lab is now a probationary regular faculty member.

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

Our numbers this year were strong in the Fall with a little bit lower numbers than expected in the Winter. The numbers are down in Computer Science - which had been experiencing very strong growth - this may impact our supportive offerings in the future though we are currently planning for the same number of class offerings for the 2025/2026 year.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No

**4. Are there any concerns or issues related to articulation that you'd like to share?**

No

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

For the first time the annual Grade 4 to 12 Science Expo put on by the Coquitlam Public Library and SD 43 (Coquitlam) was held at the Coquitlam Campus of Douglas College with all the departments in Science and Technology or related fields having tables wi

**6. Do you have any other news that you'd like to share about your department or institution?**

Douglas has a site licence for Maple and we currently make use of it for some of our courses - Calculus 3 & 4 (Math 2321 & Math 2421 and DE's (Math 2440) - but we no longer are using it in first year courses. The department is interested in knowing what other institutions are using Maple and how they are doing so. There is also a lot of interest in knowing what other people are using if they are not using Maple (Python/Matlab...).

In response to the poor numeracy skills of many of those enrolled in our Math for Teachers course (Math 1191) - the department is interested in potentially creating a prerequisite basic numeracy assessment for the course. The department passed a department policy that prohibits the use of any type of calculator in the writing of exams (midterms or finals) in this course.

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**Institution:** [Langara College](#)

**Representative providing this report:** [Eugene Belchev](#)

**Email address of representative providing this report:** [ebelchev@langara.ca](mailto:ebelchev@langara.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

None

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Low enrolment numbers, especially the sharp drop in the number of IE students, are affecting the college at large, particularly the humanities, where whole departments and programs have been shuttered. Luckily, the STEM area has been spared the worst of it, PHYS and CHEM being the exception. Specifically for Math, in my rough estimate, we have lost about 20-25% of the sections and although all continuing faculty continue to be fully employed, those in temporary positions were left unemployed or underemployed. We hope that we are close to reaching the bottom and things will turn around, but only time will tell.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

Langara is reorganizing the credentials we offer into various Academic Centres of Excellence (e.g. “Centre for Science & Technology Innovation”, “Centre for Health”, etc). The Centres model aims to enhance interdisciplinary collaboration and strengthen ties with the community. Design work is currently ongoing while the implementation plan will be developed in the fall. The launch is planned for Fall 2026.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

None

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

On Feb 28, Langara College hosted the Vancouver District Science Fair for the 11th<sup>th</sup> consecutive year. We had speakers from outside of Langara Community, and that made it easier on our faculty.

On April 3rd Langara held its very first Open House (Langara

**6. Do you have any other news that you'd like to share about your department or institution?**

Nora spearheaded a study on our MDT, which showed that it continues to be a good predictor of success. The study also provided some evidence that we can safely accept some of the grades of the IE students and do not require them to take the MDT.

Langara's planned transition to the new Student Information System (Workday Student) is delayed by a year, now planning to go live in Summer 2026.

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**Institution:** [Langara College](#)

**Representative providing this report:** [Maja Grubisic](#)

**Email address of representative providing this report:** [mgrubisic@langara.ca](mailto:mgrubisic@langara.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

New hire: Hau Man Yeung to teach STAT 1100 (Intro to Data Science Using R)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

The statistics courses saw a modest decline in both domestic and international enrollment from Summer 2024 to Summer 2025. Domestic seats dropped from 282 to 268 (a 5% decrease). International seats declined from 166 to 144 (a 13% decrease). While these changes are not yet dramatic, further declines are expected in Fall 2025 due to the pause of the BBA program, which will reduce demand for high-enrollment service courses like STAT 1123 and eventually STAT 3223.

The Data Analytics program has experienced a sharp drop in enrollment, primarily driven by decreasing international student numbers. Summer 2024 enrollment was 133 students. Summer 2025 dropped to 71 students (a 47% decrease). Fall 2025 is projected to have just 35 students,

representing a 74% decline from 2024. This steep decline reflects a broader trend of plummeting international applications, and no significant growth in domestic enrollment is expected to offset the losses.

- 3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

We are introducing a new course STAT 1100 (Intro do Data Science Using R) in the summer of 2025.

- 4. Are there any concerns or issues related to articulation that you'd like to share?**

None

- 5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

This past academic year, the Data Analytics program participated in the BC Secondary School Math Contest and LangaraFest—an open house event held in April—to engage local high school students and promote the program.

- 6. Do you have any other news that you'd like to share about your department or institution?**

As a department, we are working on developing micro-credential offerings aligned with the B.C. government's initiative to deliver short, job-relevant programs that support lifelong learning and workforce readiness. We are planning to apply next year and hope to implement some of these micro-credentials—potentially in areas such as generative AI, machine learning, and Python software—within the next couple of years, following current research into labour market needs and future skill demands.

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**Institution:** Mathematics UBCV

**Representative providing this report:** Brian Wetton

**Email address of representative providing this report:** [wetton@math.ubc.ca](mailto:wetton@math.ubc.ca)

- 1. Do you have any announcements of new hires or retirements that you'd like to share?**

Rodolfo Brandao accepted our offer of an assistant professor position. Rodolfo works in fluid mechanics and is currently a lecturer at the university of Bristol.

Chadi Saad-Roy has accepted our offer to start as an Assistant Professor on September 1st. The position is part of the PrePARE cluster and will be jointly in the Microbiology & Immunology and Mathematics.

- 2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

no significant changes

- 3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

We are starting to move our introductory linear algebra courses (MATH 221,223) into first year by default (MATH 111,131). These 1XX courses will be offered in 2025W, and will be cross-listed with the 2XX courses. The goal is for more students to take linear algebra in their first year.

The five optional Mathematics Concentrations are going live in 2025W:

<https://ubcmath.github.io/coursemap/>

- 4. Are there any concerns or issues related to articulation that you'd like to share?**  
**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**  
**6. Do you have any other news that you'd like to share about your department or institution?**

We are interested to hear whether you are doing anything different or innovative regarding attendance practices and policies.

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**Institution:** [North Island College](#)

**Representative providing this report:** [Alexandra Blair](#)

**Email address of representative providing this report:** [alexandra.blair@nic.bc.ca](mailto:alexandra.blair@nic.bc.ca)

- 1. Do you have any announcements of new hires or retirements that you'd like to share?**

On of our faculty members, Bill Morrison, is retiring after nearly 30 years with NIC. He has been teaching the Math for Elementary Ed with us, as well as ABE math courses on the Westcoast (Ucluelet center). With his retirement the center in Ucluelet will also be closing.

- 2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

This year has been fairly similar to previous years, our second year calculus course has seen good numbers for running only the second time. There are drops in international students expected in the courses, that feed/support the business programming and associate of arts degrees.

- 3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

Nothing Math or Statistics related, but we have a new Health Science Diploma, as well as some concentration in our associate degrees ( Computer Science and Psychology).

- 4. Are there any concerns or issues related to articulation that you'd like to share?**

None to share

5. **Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**
- We hosted the BCSSMC in early May (29 participants in the final round)
  - Science World is partnering with NIC at the Comox Valley campus for a Community Science Celebration on May 24.
  - Various camps for middle-school-aged children run throughout the summer.
6. **Do you have any other news that you'd like to share about your department or institution?**
- Student housing at the Comox Valley Campus will open this fall. Applications are currently accepted.
  - NIC offered voluntary retirement for faculty and staff. Roughly 24 positions are not getting replaced (5 faculty, rest admin or support staff).
  - Around 11FT positions (16 faculty members) received layoff notices, mainly in the associate of arts and business areas, some mitigation efforts are currently still ongoing.
  - The ABE department is going to be resolved. The math courses will come to our department and English will go to the Humanities and Social Science Department.
  - The following programs will be suspended and no longer enroll students in Fall 2025:
  - Tourism and Hospitality Management Certificate
  - Tourism and Hospitality Management Diploma - Hospitality Management Option
  - Tourism and Hospitality Management Diploma – Tourism Management Option
  - Tourism and Hospitality Management – Post Graduate Certificate
  - Tourism and Hospitality Management – Post Graduate Diploma
  - Tourism and Hospitality Management Diploma – Adventure Guiding Option
  - Metal Jewelry Design Certificate
  - Culinary Business Operations Diploma
  - Computing Accounting Certificate
  - Administrative Assistant Certificate
  - Aircraft Structures Technician Certificate

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**Institution:** Northern Lights College

**Representative providing this report:** Hongbin Cui

**Email address of representative providing this report:** [hcui@nlc.bc.ca](mailto:hcui@nlc.bc.ca)

1. **Do you have any announcements of new hires or retirements that you'd like to share?**

No

2. **Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

There was a significant decline in math courses

3. **Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

The following changes are related to math offerings:

Programs closed for future intake: Engineering Certificate; Engineering Studies Certificate

New Program: Associate of Science Degree (Computing and Information Science)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

No

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

No

**6. Do you have any other news that you'd like to share about your department or institution?**

No

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**Institution:** [Okanagan College](#)

**Representative providing this report:** [Bryan Penfound](#)

**Email address of representative providing this report:** [bpenfound@okanagan.bc.ca](mailto:bpenfound@okanagan.bc.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

We were expecting to hire for two full-time positions, but due to the hiring freeze at the College, those positions will be frustrated and likely not filled.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Yes. International enrollments were slightly lower this year than have been in the past couple years. We are expecting lower international enrollments in the coming year. With many of our programs being PGWP eligible, yet BC/Canada not being particularly desirable for international students due to higher than normal living conditions, it is hard to say what the coming year will bring enrollment-wise.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

This year we delivered the first rendition of MATH 223 - Linear Algebra II; STAT 203 - Introduction to Probability; STAT 205 - Introduction to Mathematical Statistics; MATH 258 - Numerical Analysis. Our Department has also submitted to PSIPS the DATA Emphasis of the Associate of Science, which is designed to get students interested in Data Science into the mathematics and statistics courses that would be required for future studies in their Bachelor Degree.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

N/A.

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

Okanagan College helped with Math Challengers & Math Kangaroo already this year (usually we jointly volunteer with the help of UBC-O). The BCSSMC is upcoming in May, and representatives from OC will be available to help with the activities.

6. Do you have any other news that you'd like to share about your department or institution?

N/A

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Institution: [Selkirk College](#)

Representative providing this report: [Doug Henderson](#)

Email address of representative providing this report: [dhenderson@selkirk.ca](mailto:dhenderson@selkirk.ca)

1. Do you have any announcements of new hires or retirements that you'd like to share?

none

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

Business program is undergoing a drastic reduction (currently consists of ~80% international students). Because of this, fewer sections of business math and stats will be required, resulting in 3 of the 7 math instructors being laid off, and one receiving a partial lay-off.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

none

4. Are there any concerns or issues related to articulation that you'd like to share?

none

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

none

6. Do you have any other news that you'd like to share about your department or institution?

Like most colleges in the province, we are trying to cope with an expected reduction in tuition for next year of \$9 million (from an operational budget of ~\$70 million). Due to this, we are still in the process of lay-offs (numerous waves, plus the resulting bumping process that needs to be navigated



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**Institution:** [Simon Fraser University](#)

**Representative providing this report:** [Michael Monagan](#)

**Email address of representative providing this report:** [mmonagan@sfu.ca](mailto:mmonagan@sfu.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[No](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[Yes, we have a new precalculus course for the life sciences and social sciences and we have constructed two applied mathematics minors, one in mathematical biology and the other in scientific computing.](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No](#)

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[No](#)

**6. Do you have any other news that you'd like to share about your department or institution?**

[Yes, Veso Jungic has retired.](#)

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**Institution:** [Simon Fraser University - Statistics](#)

**Representative providing this report:** [Harsha Perera](#)

**Email address of representative providing this report:** [gperera@sfu.ca](mailto:gperera@sfu.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Demand is always continuing to increase with Department of Statistics and Actuarial Science.](#)

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No

4. Are there any concerns or issues related to articulation that you'd like to share?

No

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

No

6. Do you have any other news that you'd like to share about your department or institution?

No

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**Institution:** [Trinity Western University](#)

**Representative providing this report:** [Sam Pimentel](#)

**Email address of representative providing this report:** [sam.pimentel@twu.ca](mailto:sam.pimentel@twu.ca)

1. Do you have any announcements of new hires or retirements that you'd like to share?

None

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

[Slight decline for this current academic year. Expecting a more significant decline for the upcoming year due to government limits on international students.](#)

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

No

4. Are there any concerns or issues related to articulation that you'd like to share?

No

5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

None

6. Do you have any other news that you'd like to share about your department or institution?

No

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**Institution:** [TRU](#)

**Representative providing this report:** [Suzanne Feldberg](#)

**Email address of representative providing this report:** [sfeldberg@tru.ca](mailto:sfeldberg@tru.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[Hopefully a tenure-track Data Science hire \(in progress\), Roger Yu- phasing retirement, Erfan Hoque has moved on to the University of Saskatchewan.](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Large drop in international enrollments \(as per everyone else\) hitting our business service course the hardest. TRU Science in general is holding pretty steady \(knock on wood\). \(some increase in domestic students\)](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[Open Learning courses are being updated, a few at a time, to better align with our face-to-face versions, and more measures are being taken in the updated courses to address academic dishonesty.](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[We continue to coordinate the BC Secondary School Math Contest. Ihor Stasyuk \(\[istasyuk@tru.ca\]\(mailto:istasyuk@tru.ca\)\) is in the process of taking over from Suzanne Feldberg.](#)

**6. Do you have any other news that you'd like to share about your department or institution?**

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**Institution:** [UBC, Okanagan campus](#)

**Representative providing this report:** [Paul Tsopméné](#)

**Email address of representative providing this report:** [paul.tsopmene@ubc.ca](mailto:paul.tsopmene@ubc.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[In the last three years, we have hired an Assistant Professor in mathematics \(Dr. Amy Wiebe, main research area: Combinatorics\) and a Lecturer in statistics and physics \(Dr. Yas Yamin\).](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

- Our B.Sc. degree has a new concentration: Mathematical Finance. So, now, a student in our program may choose to specialize further by completing a concentration in Applied Mathematics, Pure Mathematics, Mathematical Finance, or may choose to remain in the General Program.
- Mathematical Finance Concentration: Electives chosen from STAT\_O 324, DATA\_O 315, and MATH\_O 409, and one of MATH\_O 303, 328, 461; STAT\_O 400, 406; DATA\_O 405 or other approved electives in data science, mathematics, or statistics.
- New course: MATH 103 (Integral Calculus with Applications to Life Sciences) includes integration, differential equations, and some linear algebra, infinite series, probability and statistics. The course was offered for the first time in W2021-T2 (Jan – Apr 2022).
- New course: MATH 222 (Linear Algebra) covers abstract vector spaces, linear transformations, and inner product spaces.
- Labs/Tutorials: We have replaced some labs/tutorials with a Math Help Center.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

- MATH 103 will need to be submitted for articulation.
- MATH 222 will need to be submitted for articulation.

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

**6. Do you have any other news that you'd like to share about your department or institution?**

- In Calculus I, II, and III, we have been using OpenStax and some course notes created by an instructor at UBCO. Personally, I have started to use OpenStax last term (Jan – Apr 2025) and I am not sure yet about its effectiveness.
- We have started to use MyOkanaganMath (<https://myokanaganmath.ok.ubc.ca/>) in our Calculus I and II courses.
- Open Textbook for MATH 103 (will be released soon): I have developed an open textbook for MATH 103 (Integral Calculus with Applications to Life Sciences) and used it for the first time with my students in W2024-T2 (Jan – Apr 2025).
  - The textbook brings together materials (such as differential equations, linear algebra, probability, and statistics) that are not usually found in regular calculus textbooks and presents them in the context of real-life problems.

- The textbook addresses the needs of all students regardless of their algebraic skills by providing all necessary background (including algebra) and detailed step-by-step solutions.
  - The textbook has many exercises and applications, including true or false questions with justifications.
  - According to students' feedback, the textbook helped them understand the material better.
- Open Workbooks: I also developed open workbooks for Calculus I and II, and Matrix Algebra ([https://open.library.ubc.ca/search?q=tsopmene&ubc\\_repo\\_label=cIRcle&widgetquery=https:%2F%2Fcircle.ubc.ca%2F](https://open.library.ubc.ca/search?q=tsopmene&ubc_repo_label=cIRcle&widgetquery=https:%2F%2Fcircle.ubc.ca%2F)). They include problems with full solutions and concept summaries. In W2024-T1 (Sep – Dec 2024) I used the one for MATH 221 as the only required resource for the course and in W2024-T2 (Jan – Apr 2025), an instructor at UBCO used it as the main reference for his course.

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**Institution:** UBC-V (Statistics)

**Representative providing this report:** Bruce Dunham

**Email address of representative providing this report:** [b.dunham@stat.ubc.ca](mailto:b.dunham@stat.ubc.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

No colleagues either joined or left the department in the last year.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Numbers overall on STAT and DSCI courses increased modestly from the previous year. The cap on students entering a B.Sc. specialisation in statistics at the start of second year was kept at 159.

Psychology are terminating PSYC 278 and will in future be obliging B.Sc. Neuroscience students to take STAT 200, adding around 200 seats to the course.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

The department worked with the Department of Computer Science in creating a new major in data science. The new program has been approved at UBC level and awaits ratification by the MoE at the time of writing. The program will recruit forty students entering after their first year on the B.Sc. program. These include twenty new seats to the Faculty of Science.

Several new courses were created in the process of making the new major, including three new DSCI 200-level offerings. One of these, DSCI 200, will be taught by Statistics faculty and features topics in simulation, data acquisition, outliers, missing values, data privacy and ownership. The pre-requisite is DSCI 100. The other two new DSCI courses, 220 (Discrete Mathematics for Data Science) and 221 (Data Structures for Data Science), will be taught by colleagues in Computer Science.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

Institutions offering courses in data science may wish to consider adopting the DSCI code. The rollout of Student WorkDay at UBC caused problems with course articulations for some students this year.

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

Katie Burak organized a summer school event for local girls in 2024, exploring some introductory concepts in the statistical sciences. The event will run again this summer.

**6. Do you have any other news that you'd like to share about your department or institution?**

The Statistical Society of Canada (SSC) awarded Professor Alexandre Bouchard-CÃ'tÃ© the 2024 CRM-SSC Prize in Statistics.

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**Institution:** UNBC

**Representative providing this report:** Jennifer Hyndman

**Email address of representative providing this report:** Jennifer.Hyndman@unbc.ca

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

no

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Our international enrolment dropped in January 2025. MATH 115 Precalculus had half the enrolment of each of the previous 3 semester. MATH 100 Calculus I had lower than expected enrolment in Sept 2024 but MATH 101 Calculus II had higher enrolment than the previous couple of years.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

We moved the Continuing Studies XMAT sequence to UNIV 113 University Math Prep, a normal course. It is like Math 11 Precalculus but also includes information on how to be a university student. Our upper year algebra courses are being revised but that will be completed after our external review in the fall.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

We are expected to articulate courses from all countries and not just within Canada.

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

**6. Do you have any other news that you'd like to share about your department or institution?**

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**Institution:** [University Canada West](#)

**Representative providing this report:** [Costa Karavas](#)

**Email address of representative providing this report:** [costa.karavas@ucanwest.ca](mailto:costa.karavas@ucanwest.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

- Dr. Mazi Shirvani was appointed interim Vice President, Academic in March 2024.
- Lisa Collins joined in the new position of Vice President, Student Experience in May 2024.
- Dr. Sandra Song joined in the new position of Dean, School of Arts, Science and Technology in October 2024, and is also currently serving as Interim Dean, School of Management & Business.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Student Enrollments](#)

<b>Undergraduate Programs</b>	<b>Spring 2024</b>	<b>Summer 2024</b>	<b>Fall 2024</b>	<b>Winter 2025</b>
BCom	663	595	644	618
BABC	282	246	265	241
AA	4033	4532	4658	4419

1) The student body (Winter 2025) had 106 nationalities with the top percentage of students coming from India (64.11%), followed by Nepal (5.86%).

Other regions represented include Latin America (7.2%), Western Africa (4.49%), SE Asia (3.33%), and the Middle East (1.47%).

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

- (new) Bachelor of Commerce Specializations: Accounting, Marketing, and Technology Management (Winter 2026).
- (new) MBA Specializations: Business Analytics, Supply Chain Management, and Artificial Intelligence & Machine Learning Leadership (July 2025).
- Exploring proposals for several news programs including Financial Innovation & Technology, Software Engineering, and Healthcare Management.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

**6. Do you have any other news that you'd like to share about your department or institution?**

1) Implementing a cohort system for all programs. The MBA cohort system will begin in July 2025 and the undergraduate cohort system will begin in January 2026.

2) Produced the acclaimed Understanding Indigenous History: A Path Forward, which was released in April 2024. The six-part series aims to encourage Canadians to learn about Indigenous history through powerful personal narratives.

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**Institution:** University of the Fraser Valley

**Representative providing this report:** Ben Vanderlei

**Email address of representative providing this report:** ben.vanderlei@ufv.ca

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

In Fall 2024, our department welcomed two new hires. Dr. Andrew Staal joins the math faculty and Dr. Vahid Tadayon joins the stats faculty.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Departmental enrolment has been stable in first-year math and stats courses for the 2024-25 year, and we are projected to offer a similar number of sections next academic year. There has been a significant increase in math enrolments in second-year courses due to popularity of the Computing Science major in our BSc.

In statistics, we ran dedicated sections of STAT 271, 272, and 307 in support of the Business Analytics Post-Baccalaureate Diploma program.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

**4. Are there any concerns or issues related to articulation that you'd like to share?**

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

Our department has continued with Math Mania, holding three such events this year. We hosted the BCSSMC in May with 41 students from six area schools, and we also hosted the Math Kangaroo for the first time in March. We were pleased to welcome over 70 s

**6. Do you have any other news that you'd like to share about your department or institution?**

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**Institution:** UVic

**Representative providing this report:** Jane Butterfield



Email address of representative providing this report: [jvbutter@uvic.ca](mailto:jvbutter@uvic.ca)

1. Do you have any announcements of new hires or retirements that you'd like to share?
2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?
3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

We have made minor adjustments to MATH 161/162, the two-course Math for Elementary Teachers sequence, moving a few topics from one to the other. The overall content of the pair of courses is unchanged, and the reordering makes for a more coherent grouping of topics.

After a departmental curriculum retreat in February, two changes that would affect articulation are underway. One we mentioned last year, which is a reorganization of our 2nd year calculus and differential equations courses that would see the introduction of half-courses that can be paired in different ways according to different program's needs. This would cause several articulation changes, as each of MATH 200, MATH 202, and MATH 204 would be replaced by various pairs of half-courses, but it is an ongoing project that we are handling carefully.

The other is to move linear algebra (currently MATH 211) into the first year of most Math & Stats department programs. Impact on articulation should be minor; this will probably not involve any significant changes to the course description or content, although it might include a new course number. We are still in the early days of planning.

4. Are there any concerns or issues related to articulation that you'd like to share?
5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?
6. Do you have any other news that you'd like to share about your department or institution?

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Institution: [Vancouver Community College](#)

Representative providing this report: [Costa Karavas](#)

Email address of representative providing this report: [ckaravas@vcc.ca](mailto:ckaravas@vcc.ca)

1. Do you have any announcements of new hires or retirements that you'd like to share?

[Associate Director of School of Arts and Sciences, Jennifer Kelly.](#)

[New Manager of Indigenous Education initiatives: Tanya O'Neill.](#)

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

[VCC enrolment is projected to decline in the coming year by approximately 24% due to the federal changes to policies affecting international students and the loss of the Language Instruction for Newcomers to Canada \(LINC\) contract.](#)

For the University Transfer Math, we expect a sharp decline in new international students. This is attributed to IRCC policy changes.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

1) (new) Associate of Science Degree, Data Science concentration (Jan 2026).

2) (new) Post-degree diploma program in Cybersecurity Governance, Risk, and Compliance.

3) Two new pathways for adult upgrading tailored to adult learners and mature students, with a dedicated cohort supporting Indigenous learners as they transition to future-ready careers in trades, technology and health.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

**5. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

**6. Do you have any other news that you'd like to share about your department or institution?**

1) VCC will be looking to cut approximately 60 regular positions and close to 50 term faculty across all schools in an attempt to balance a \$4.1 million deficit in the current budget.

2) Re-organization of ABE class-based and self-paced departments. Consultations and planning. Creation of a welcome HUB.

3) Ajay Patel, VCC's president and CEO, has been awarded the King Charles III Coronation Medal as an acknowledgement of his outstanding contributions to the regulated career college sector and workforce development in Canada.

4) Federal Government Cuts to the LINC contract (Language Instruction for Newcomers to Canada).

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**Institution:** Vancouver Island University

**Representative providing this report:** Glen Pugh

**Email address of representative providing this report:** [glen.pugh@viu.ca](mailto:glen.pugh@viu.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

We had one retirement this year: Dr. Lev Idels, as of Dec 31 2024.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Yes, declines. For fiscal 2024-25, institutionally we saw the following \*declines\*: 6% domestic, 16% international, 7% combined. Within the Faculty of Science and Technology, total \*decline\* of 8%. Within MATH courses, total \*decline\* of 4.5%.

3. **Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

Our BA and BSc Math Minor programs were recently amended to reduce the upper level MATH course credit requirement from 18 to 12 (six upper level MATH courses reduced to four; total required credits reduced from 41 to 35). We recently completed the external site visit phase of our Math Major & Minor program review and we are currently working on our action plan which lays out proposed program changes. Work is in progress.

4. **Are there any concerns or issues related to articulation that you'd like to share?**

Precalculus background and preparedness for calculus continues to be a challenge. We have instituted a precalculus assessment test, written the first week in September, to give students feedback on calculus readiness. It is not a placement test at this po

5. **Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

We one again hosted the regional sitting of the BC Secondary Schools Math Contest on May 2. On Saturday October 5 we had a math table at 'VIU Fest', a drop in event for the public to see what goes on at campus. We had a number of math themed games and

6. **Do you have any other news that you'd like to share about your department or institution?**

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## Statistics Subcommittee Minutes and Institutional Reports

### **103<sup>rd</sup> BCcupms Meeting – Statistics Subcommittee Meeting Minutes May 14, 2025 – Blended (In-Person & Zoom)**

**Venue:** Okanagan College, Penticton Campus

**Time:** 11:10 to 12:15 and 13:00 to 14:15

#### **Attendees**

**In-Person:** Alexandra Blair (NIC), Bruce Dunham (UBC-V), Maja Grubisic (Langara), Andrea Hyde (CR), Emelie Lee (OC), Natasha Mandryk (VCC), Mateen Shaikh (TRU)

**In-Zoom:** Eric Ageykum (VIU), Mahshid Atapour (CapU), Susan Chen (Camosun), Shiva Gol Tabaghi (CapU), Simin Jolfaee (BCIT), Mary Lesperance (UVic), Allan Majdanac (Douglas), Gillian Mimmack (UFV), Harsha Perera (SFU)

**Chair:** Bruce Dunham

**Secretary:** Susan Chen

1. Approval of agenda.  
Moved by Mateen Shaikh  
Seconded by Alexandra Blair  
Approved unanimously
2. Approval of minutes from Statistics subcommittee meeting from 102<sup>nd</sup> meeting.  
Moved by Alexandra Blair  
Seconded by Emelie Lee  
Approved unanimously
3. Matters arising from minutes.  
Allan followed up on SCIE 113 at UBC-V wondering if sending institutions are expected to start offering it, Bruce said they are not and news that the course is now required for all B.Sc. students at UBC-V was shared in case other institutions are interested in offering an articulating course.
4. Election of Secretary  
Emelie Lee (elee@okanagan.bc.ca) was elected as secretary by acclamation.
5. Institutional reports.  
Appended at the end of this report.

6. Computing requirements for statistics and data science courses (Maja Grubisic, Langara)  
Maja is curious about intro stats software. Currently using a combination of R and Excel. Bruce suggested we enter responses in the Zoom chat, a summary of responses below:

<b>Institution</b>	<b>Course/Level</b>	<b>Software</b>	<b>Notes</b>
<b>VCC</b>	MATH 1111 Intro Stats	Excel	
	MATH 2700 Prob & Stats for Scie/Eng	R	
<b>BCIT</b>	Business Stats	Excel	
<b>Douglas</b>	1XX	Graphing Calculator	
	2XX	R	
<b>UVic</b>	Business Stats	Excel	
<b>Camosun</b>	STAT 116 (for arts and Social sci)	Excel	Use Sharp EL-531 calculator for all Math and STAT courses
	STAT 216 (for life Sci and Bus)	R	
	STAT 218 (for ENGR and Math and Sci)	R	1 hour lab every other week, on top

			of 4 hours/week lecture We have a lab final in the computer lab, 10% of the grade
<b>TRU</b>	Business faculty	Excel and Jamovi	Depending on the instructor, some part of the exam is on the computer
<b>UFV</b>	Intro Stats courses	Minitab	Exams in the computer lab
<b>Okanagan College</b>	Elementary/Business Stats	Excel	
	Introductory Stats (for sciences)	Currently Excel but is switching to R	

This discussion evolved onto the use of statistical tables and the amount of “number crunching” required in examinations.

All agreed that tasks like reading tables and performing lengthy manual calculations offer little educational value in learning statistics; instead, the focus should be on developing a strong understanding of statistical concepts. Providing students with software output to interpret or using tools like the “Empirical Rule” were suggested as more effective alternatives to traditional table-based approaches.

Bruce wondered why institutions would choose to teach Excel instead of R, especially as it becomes increasingly important to teach students about reproducibility in analysis. Some reasons include:

- Many courses have students going into industry where they will use Excel rather than SPSS or R (Susan, echoed by Emelie)
- IT does not like to install open-source software on institutional hardware (Natasha, echoed by Maja and Mateen)

UBC-V uses JupyterHub for certain courses but they have a coordinator who runs it so it may not be feasible for other institutions.

Bruce shared Mike Marin’s lectures on learning R on YouTube (<https://www.youtube.com/@marinstatlectures>) as a resource.

#### 7. Inclusion of Z test for Normal mean in introductory courses (Susan Chen, Camosun)

Bruce suggested we enter responses in the Zoom chat, a summary of responses below:

<b>Institution</b>	<b>Course/Level</b>	<b>Z test for Normal Mean</b>	<b>Notes</b>
<b>TRU</b>		Briefly to scaffold for proportions, conf intervals, and hyp tests, then t	
<b>UBCV</b>	STAT 200 and 251	Yes	
	STAT 203	No	
<b>Langara</b>		Yes	
<b>OC</b>	STAT 1XX	No	We introduce proportions first (using z) then we only use t for means
	STAT 2XX	Unsure if they have moved away from it yet	
<b>SFU</b>	STAT 201 and 203	Yes	
<b>Camosun</b>	STAT 116 and 216	No	
	STAT 218	Yes	
<b>VIU</b>	1XX and 2XX	Simply mention it	
<b>Douglas</b>	1XX	Yes	
	2XX	No	

8. Any other business.

Bruce highlighted two upcoming conferences

- CanCOTS 2025: This June in Montréal
- ICOTS 12: Next July in Brisbane

9. Motion to adjourn.

Moved by Alexandra Blair

Seconded by Maja Grubisic

## Institutional Reports

**Institution:** BCIT

**Representative providing this report:** [Simin Jolfaee](#) and [Sandra Merchant](#)

**Email address of representative providing this report:**

[Simin\\_Jolfaee@bcit.ca](mailto:Simin_Jolfaee@bcit.ca) and [smerchant3@bcit.ca](mailto:smerchant3@bcit.ca)

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

[Same report for both mathematics and statistics sub committees.](#)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[The number of our international students continue to decline.](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[Some programs are reducing the number of course credits and cutting back on math and stats courses, the changes are yet to be finalized.](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No](#)

**5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

[Nothing new; some instructors continue to use Webwork as an assessment tool for assignments and quizzes.](#)

**6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

**7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

**8. Do you have any other news that you'd like to share about your department or institution?**

[At BCIT, there are cuts happening as part of the overall drop of international students but we still don't know the full impact of these cuts as each of the programs we teach into establish their own approach to cost savings. Also, that there is an overall slowly implemented initiative to reduce the number of credit hours in programs which in some cases involves reducing foundational courses like math.](#)

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**Institution:** [Camosun College](#)

**Representative providing this report:** [Susan Chen](#)

**Email address of representative providing this report:** [chen@camosun.ca](mailto:chen@camosun.ca)

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

[This is in addition to the report for the Math Subcommittee](#)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

[Enrolment in Stats was slightly up this year, but fewer international students. A lot fewer international students in the projection for the coming year, but more domestic students.](#)

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

[No, not in Math or Stat](#)

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No](#)

**5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

[Yes, we use MyOpenMath and WebWork for online assignments for several classes. We also use Open IntroStatistics 4<sup>th</sup> edition for Stat 116 Elementary Statistics.](#)

**6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

[Work continues, all curriculum changes must include Indigenization.](#)

**7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

[Pie Day \(Math\)](#)

**8. Do you have any other news that you'd like to share about your department or institution?**



Camosun is restructuring because of budget. Reduced the number of schools from 5 to 4, and Math and Stat department now sits in the school of STEM as the former School of Arts and Science splits. Our department is facing a faculty layoff, sadly.

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**Institution:** Capilano University

**Representative providing this report:** Mahshid Atapour

**Email address of representative providing this report:** mahshidatapour@capilanou.ca

Enrolment in the statistics courses has been good and stable. Upper level statistics courses are now regularly offered to serve students in the new four-year programs.

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**Institution:** Douglas College

**Representative providing this report:** Allan Majdanac

**Email address of representative providing this report:** majdanaca@douglascollege.ca

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

This report is only for the Statistics portion of the meeting. Another colleague will provide a report for Mathematics.

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

See report for MATH.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

Statistics courses at Douglas College are offered within the Mathematics department. We have two courses: MATH 1160-Introduction to Statistics (an algebra-based course) and MATH 2260-Probability and Statistics for Scientists and Engineers (a calculus-based course). Note that Douglas College operates under a trimester system (Fall, Winter, Summer).

MATH 1160 enrollments grew in the 2024/25 academic year:

Fall 24: 7 sections of 1160 (35 students/section)

Winter 25: 7 sections of 1160, increase of two sections over the previous year.

Summer 25: 4 sections of 1160, increase of one section over the previous year.

MATH 2260 enrollments held steady at one (full) section in the Fall 24 semester. This course is taken primarily by computing science and engineering students at Douglas College.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?**

None.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

SFU CMPT has recently removed STAT 270 and MACM 201 from their degree requirements, and replaced them with CMPT 210-Probability and Computing and STAT 271-Probability and Statistics for Computing Science. With the removal of STAT 270 (=DOUG MATH 2260), we are unclear as to whether DOUG MATH 2260 will articulate to either CMPT 210 or STAT 271. Repeated attempts to discuss the matter with SFU CMPT have not been fruitful. Perhaps the SFU STAT representative can provide further clarity on this situation.

- 5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

MATH 1160 instructors have moved away/are moving away from the OpenStax materials, back to the text by DeVaux. They use the publisher-provided online HW systems that are included with such texts. We have not used WebWork for this course, even though we have an in-house WebWork server at Douglas College. We are looking to add R capability to our WebWork server.

MATH 2260 recently moved to the Devore text. No suitable OER is available for this course. Any suggestions would be welcome. WebWork has been used for this course with success.

- 6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

None.

- 7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

None.

- 8. Do you have any other news that you'd like to share about your department or institution?**

None.

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**Institution:** [Langara College](#)

**Representative providing this report:** [Maja Grubisic](#)

**Email address of representative providing this report:** [mgrubisic@langara.ca](mailto:mgrubisic@langara.ca)

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

Our institution will also provide the Math report as we are now separate departments.

- 1. Do you have any announcements of new hires or retirements that you'd like to share?**

Yes, we hired a new instructor, Hau Man Yeung to teach STAT 1100 (Intro to Data Science Using R)

- 2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

The statistics courses saw a modest decline in both domestic and international enrollment from Summer 2024 to Summer 2025. Domestic seats dropped from 282 to 268 (a 5% decrease). International seats declined from 166 to 144 (a 13% decrease). While these changes are not yet dramatic, further declines are expected in Fall 2025 due to the pause of the BBA program, which will reduce demand for high-enrollment service courses like STAT 1123 and eventually STAT 3223.

The Data Analytics program has experienced a sharp drop in enrollment, primarily driven by decreasing international student numbers. Summer 2024 enrollment was 133 students. Summer 2025 dropped to 71 students (a 47% decrease). Fall 2025 is projected to have just 35 students, representing a 74% decline from 2024. This steep decline reflects a broader trend of plummeting international applications, and no significant growth in domestic enrollment is expected to offset the losses.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

We are introducing a new course STAT 1100 (Intro do Data Science Using R) in the summer of 2025.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

None.

**5. Are there any open-access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

No.

**6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

While we have not yet implemented formal Indigenization initiatives at the department level, individual faculty members have actively engaged in workshops, sessions, and professional development opportunities related to Indigenous perspectives and reconciliation. These individual efforts reflect our shared recognition of the importance of Indigenization and lay the groundwork for more coordinated departmental initiatives in the future.

At the institutional level, Langara College has demonstrated a strong commitment to Indigenization, reconciliation, and decolonization. The Teaching and Curriculum Development Centre (TCDC) provides resources and support to help departments and individuals integrate Indigenous ways of knowing and learning into their teaching practices. The college's 2025 Strategic Plan emphasizes key commitments such as decolonizing curriculum, deepening relationships with the Musqueam First Nation, and developing strategies to recruit and retain Indigenous students and employees.

**7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

This past academic year, the Data Analytics program participated in the BC Secondary School Math Contest and Langara Fest - an open house event held in April - to engage local high school students and promote the program.

**8. Do you have any other news that you'd like to share about your department or institution?**

As a department, we are working on developing micro-credential offerings aligned with the B.C. government's initiative to deliver short, job-relevant programs that support lifelong learning and workforce readiness. We are planning to apply next year and hope to implement some of these micro-credentials—potentially in areas such as generative AI, machine learning, and Python software—within the next couple of years, following current research into labour market needs and future skill demands.

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**Institution:** [North island college](#)

**Representative providing this report:** [Alex Blair](#)

**Email address of representative providing this report:** [Alexandra.blair@nic.bc.ca](mailto:Alexandra.blair@nic.bc.ca)

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

[Only report for NIC](#)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

On of our faculty members, Bill Morrison, is retiring after nearly 30 years with NIC. He has been teaching the Math for Elementary Ed with us, as well as ABE math courses on the Westcoast (Ucluelet center).

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

This year has been fairly similar to previous years, our second year calculus course has seen good numbers for running only the second time. There are drops in international students expected in the courses, that feed/support the business and associate of arts degrees.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

Nothing Math or Statistics related, but we have a new Health Science Diploma, as well as some concentration in our associate degrees ( Computer Science and Psychology).

**4. Are there any concerns or issues related to articulation that you'd like to share?**

[No concerns to share.](#)

**5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

- [Calculus I, II: Active Calculus \(Boelkins\), Apex Calculus \(Hartman et al.\), with UBC CLP 1, 2 as supplements.](#)
- [Calculus III \(multivariable\): Apex Calculus, with CLP 3 as a supplement.](#)
- [Calculus IV \(vector calc. and DEs\): Apex Calculus, Notes on Diffy Qs \(Lebl\) and Elementary Differential Equations with Boundary Value Problems \(Trench\) with CLP 4 as a supplement.](#)

- The department uses WeBWork for several courses in mathematics and statistics, and Geogebra for visualization.
- Diez, David et al. 2019. *OpenIntro Statistics*, 4<sup>th</sup> Edition for our Intro to Statistics course.

**6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

NIC hosted an employee wide PD event this February where employees could learn about the latest initiatives and practices related to Indigenization and Decolonization; Diversity, Equity and Inclusion; AI; and Applied Technology.

**7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

- We hosted the BCSSMC in early May (29 participants in the final round)
- Science World is partnering with NIC at the Comox Valley campus for a Community Science Celebration on May 24.
- Various camps for middle-school-aged children run throughout the summer.

**8. Do you have any other news that you'd like to share about your department or institution?**

- Student housing at the Comox Valley Campus will open this fall. Applications are currently accepted.
- NIC offered voluntary retirement for faculty and staff. Roughly 24 positions are not getting replaced (5 faculty, rest admin or support staff).
- Around 11FT positions (16 faculty members) received lay off notices, mainly in the associate of arts and business areas.
- The ABE department is going to be resolved. The math courses will come to our department and English will go to the Humanities and Social Science Department.
- The following programs will be suspended and no longer enroll students in Fall 2025:
  - Tourism and Hospitality Management Certificate
  - Tourism and Hospitality Management Diploma - Hospitality Management Option
  - Tourism and Hospitality Management Diploma – Tourism Management Option
  - Tourism and Hospitality Management – Post Graduate Certificate
  - Tourism and Hospitality Management – Post Graduate Diploma
  - Tourism and Hospitality Management Diploma – Adventure Guiding Option
  - Metal Jewelry Design Certificate
  - Culinary Business Operations Diploma
  - Computing Accounting Certificate
  - Administrative Assistant Certificate
  - Aircraft Structures Technician Certificate

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**Institution:** Okanagan College

**Representative providing this report:** Emelie Lee

Email address of representative providing this report: [elee@okanagan.bc.ca](mailto:elee@okanagan.bc.ca)

Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?

Please see the Math report for the full institutional report

1. Do you have any announcements of new hires or retirements that you'd like to share?

No

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

Yes, see math report.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

STAT 203 - Introduction to Probability; STAT 205 - Introduction to Mathematical Statistics were offered for the first time this year to match a change made by UBC Okanagan.

4. Are there any concerns or issues related to articulation that you'd like to share?

No

5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?

Yes, we only use open material including our very own MyOkanaganMath for online homework.

6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?

One section of Math for Arts was offered per term which took an indigenized approach through group work and storytelling.

7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

Yes, see math report.

8. Do you have any other news that you'd like to share about your department or institution?

None.

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Institution: **SFU**

Representative providing this report: **Harsha Perera**

Email address of representative providing this report: [gperera@sfu.ca](mailto:gperera@sfu.ca)

Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?

[There is another report from Mathematics](#)

1. Do you have any announcements of new hires or retirements that you'd like to share?

[No](#)

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

[No. Demand is always continuing to increase with the Department of Statistics and Actuarial Science.](#)

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCUPMS community know about?

[No](#)

4. Are there any concerns or issues related to articulation that you'd like to share?

[No](#)

5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?

[No](#)

6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?

[No](#)

7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

[No](#)

8. Do you have any other news that you'd like to share about your department or institution?

[No](#)

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Institution: [Thompson Rivers University](#)

Representative providing this report: [Mateen Shaikh](#)

Email address of representative providing this report: [mshaikh](#)

Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?

The math one was also sent with some duplicate information

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

Erfan Hoque has moved to another institution outside of BC. We are hoping to finalize a new hire this month.

**2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?**

In science (stats), not much of a change. Other faculties have a hit, including service to those faculties.

**3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?**

Not this year, though next year there may be some changes.

**4. Are there any concerns or issues related to articulation that you'd like to share?**

Articulations were down this year

**5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

NA

**6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?**

NA

**7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

NA

**8. Do you have any other news that you'd like to share about your department or institution?**

NA

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**Institution:** [UBC-V Statistics](#)

**Representative providing this report:** [Bruce Dunham](#)

**Email address:** [b.dunham@stat.ubc.ca](mailto:b.dunham@stat.ubc.ca)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[Prof Nancy Heckman retired after many years of service to the department, including two terms as head.](#)

**2. Has your institution or department seen significant enrollment changes this year (domestic,**



**international, or overall), or are significant changes expected in the coming year?**

Numbers overall on STAT and DSCI courses increased modestly from the previous year. The cap on students entering a B.Sc. specialisation in statistics at the start of second year was kept at 159.

Psychology are terminating PSYC 278 and will in future be obliging B.Sc. Neuroscience students to take STAT 200, adding around 200 seats to the course.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCCupms community know about?

The department worked with the Department of Computer Science in creating a new major in data science. The new program has been approved at UBC level and awaits ratification by the MoE at the time of writing. The program will recruit forty students entering after their first year on the B.Sc. program. These include twenty new seats to the Faculty of Science.

Several new courses were created in the process of making the new major, including three new DSCI 200-level offerings. One of these, DSCI 200, will be taught by Statistics faculty and features topics in simulation, data acquisition, outliers, missing values, data privacy and ownership. The pre-requisite is DSCI 100. The other two new DSCI courses, 220 (Discrete Mathematics for Data Science) and 221 (Data Structures for Data Science), will be taught by colleagues in Computer Science.

4. **Are there any concerns or issues related to articulation that you'd like to share?**

Institutions offering courses in data science may wish to consider adopting the DSCI code. The rollout of Student WorkDay at UBC caused problems with course articulations for some students this year.

5. **Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?**

The department makes much use of free online resources for its teaching. These include: WeBWork(iR): A free online homework system for mathematics and statistics, incorporating R. See [webwork.maa.org](http://webwork.maa.org) and <https://wiki.ubc.ca/Documentation:WeBWork> for more details.

StatSpace: An online repository for teaching resources in statistical sciences is available at <https://statspace.elearning.ubc.ca>. Colleagues are invited to explore and review existing resources and can also register as an instructor in order to see instructor-only materials and submit their own resources. In addition, the department has developed a repository for RShiny apps on GitHub.

Free online textbooks used include:

Data Science: A First Introduction, by Tiffany Timbers, Trevor Campbell, and Melissa Lee  
<https://datasciencebook.ca/> (for DSCI 100)

Modern Dive: Statistical Inference via Data Science (at [moderndive.com](http://moderndive.com)) developed by Chester Ismay and Albert Kim (for STAT 201)

OpenIntro Statistics (at [www.openintro.org](http://www.openintro.org))

Introduction to Data Science (at <https://rafalab.github.io>) by Rafael A. Irizarry.

R for Data Science (2e), by Hadley Wickham, Mine Çetinkaya-Rundel, and Garrett Grolemund.  
<https://r4ds.hadley.nz/> (DSCI 200)

An Introduction to Probability and Simulation, by Kevin Ross.  
[https://bookdown.org/kevin\\_davisross/probsim-book/](https://bookdown.org/kevin_davisross/probsim-book/) (DSCI 200)

Colleagues in Arts at UBC-V have developed a collection of online resources to support student learning in statistics and econometrics; see <https://comet.arts.ubc.ca/> for details.

**6. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?**

Katie Burak organized a summer school event for local girls in 2024, exploring some introductory concepts in the statistical sciences. The event will run again this summer.

**7. Do you have any other news that you'd like to share about your department or institution?**

The Statistical Society of Canada (SSC) awarded Professor [Alexandre Bouchard-Côté](#) the 2024 CRM-SSC Prize in Statistics.

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**Institution:** [University of the Fraser Valley](#)

**Representative providing this report:** [Gillian Mimmack](#)

**Email address of representative providing this report:** [gillian.mimmack@ufv.ca](mailto:gillian.mimmack@ufv.ca)

Enrolments in first year statistics courses was slightly higher this past year (Fall 2024-Summer 2025): 1457 for Fall 2024-Summer 2025 compared with 1399 for Fall 2023-Summer 2024.

In support of the Business Analytics program we have offered an extra section of 271 (Introduction to Data Analysis and Statistical Modelling), 272 (Statistical Graphics and Languages) and 307 (Data Visualisation). There were 24 students in the STAT307. Indications from the School of Business is that their program will require these courses again next year.

At this early stage, it appears that there will be 13 students for the Data Analysis Certificate this year 2025-2026.

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**Institution:** [University of Victoria](#)

**Representative providing this report:** [Mary Lesperance](#)

**Email address of representative providing this report:** [mlespera@uvic.ca](mailto:mlespera@uvic.ca)

**Is this the only report which your institution will provide, or will there be another, or others, submitted by a representative for another discipline – Math, Stats, or Math Ed?**

[There is another in Math.](#)

**1. Do you have any announcements of new hires or retirements that you'd like to share?**

[No new hires. I am retiring on June 30, 2026.](#)

2. Has your institution or department seen significant enrollment changes this year (domestic, international, or overall), or are significant changes expected in the coming year?

See Math report.

3. Are there any new or significantly revised programs or courses at your institution that you'd like to let the BCcupms community know about?

We offered Stat32, Data Management and Presentation, for the first time in January 2025.

4. Are there any concerns or issues related to articulation that you'd like to share?

XXXXX

5. Are there any open access resources (texts or homework systems) that your department is using, particularly in first- and second-year transferable courses, that you've found to be particularly effective?

XXXXX

6. Are there any efforts towards Indigenization that have been made in your department, or at your institution, that you'd like to report?

See Math report.

7. Are there any outreach initiatives that have been made in your department, or at your institution, that you'd like to report?

See Math report.

8. Do you have any other news that you'd like to share about your department or institution?

We are still in need of a textbook for Stat255 and Stat256, the first and second Statistics courses for Biology. The book that we use for Mathematical Statistics I and II, Introduction to Probability and Mathematical Statistics, 2nd edition by Bain and Englehardt just went out of print and we are looking for a textbook for those two courses. We invite your suggestions.