

- Chehra Aboukinane. Multiple types of assessment seem to be helping: diversifying types of assessment (group testing, randomization, project/application based, etc.) will help give a sounder basis with which grades can be calculated. For example, Kahoot helps to increase engagement.
- Jeffrey Ha. Remember that students may not have a comfortable situation at home, and may have difficulty juggling micro-assignments. Suggest to take a quick survey or poll to make sure that we are not overly disadvantaging students by increasing the number of connection points.
- Erin Beveridge. The situation of the employee strike at UNBC caused a similar situation (an abridged semester). One idea that helped was creating an online calendar for the students, and adjusting the length to a maximum of 2 pages (single pdf) for max 30 minutes.
- Justin Gray. Reduced weighting on final exams (more frequent assessments), avoid questions that could be easily searched for online, multiple versions of exams, students handwrote and scanned/submitted exams (scan of ID card at the start page to confirm identity). Questions not necessarily more difficult, but a bit less standard in language to make searching less likely. Breaking exams into shorter pieces. SFU examining live proctoring over zoom with mobile phones on a side view, and are working on guidelines for the fall.
- Natasha Davidson. Concerned that live zoom proctoring is an invasion of privacy, so there are concerns here, and is surprised that any student would be accepting of this type of a situation.
- Stephen Brown. Multiple versions, students scan and submit pdf. Shared <https://www.gradescope.com/>
- Asia Matthews. Oral exam/interviews are an option for smaller classes.
- Mateen Shaikh. Presentations may be worth a portion of the assessment.
- Eugene Belchev. Implement online testing, with a limited amount of time to pause for each answer, as well as randomization.
- Peter Sinclair. Chegg was used extensively, and it was useful to pursue it after the fact, from an accountability perspective. Questions need to be uniquely identifiable (with some element of randomization) to do this well.
- Justin Gray. SFU Academic integrity coordinator has been able to get information from Chegg.
- Susan Oesterlie. Deterrence was useful to tell students in advance to avoid cheating.
- Kseniya Garaschuk. Preventing cheating is more useful (3 factors: pressure – what are the stakes, opportunity – is it easy to do, rationalization – is it ok to cheat?) Discuss with students what cheating

is, and not just read them an honour code. Considering these three factors will help prevention.

- Chehra Aboukinane. Reserve the right to immediately suspend an exam on the instructor's decision to move to an oral exam. Be clear about the rules, and follow-up with students who stepped outside these.
- Deanna Baxter. All exams are open book and open notes, as this is extremely hard to police. Post-exam follow-up interviews to review the exam. Ask students to scan and submit all of their work (even for multiple choice).

16. Adjournment. (3:08) The Chair thanked everyone for their participation, and appreciated the honour of continuing as chair. Special acknowledgement was noted for Jane Butterfield for the outstanding service as secretary.

Motion: To adjourn the 98th BCcupms meeting. M- Suzanne, S- Natasha. Consensus.
Approved - consensus

Meeting adjourned at 3:10.

Attendee List

Institution	Last name	First name
Ascenda School of Management	Aboukinane	Chehra
	Banerjee	Partha
	Mahyari	Zahra
BC Institute of Technology	Jolfaee	Simin
	Merchant	Sandi
Camosun College	Chen	Susan
	Montgomery	Patrick
Capilano University	Anderson	Marsha
	Ottaway	Paul
College of New Caledonia	Wall	Tracy
College of the Rockies	Hyde	Andrea
Columbia College	Culibrk	Ana
Coquitlam College	Belchev	Gera
Douglas College	Davidson	Natasha
	Henschell	Dan
	Oesterle	Susan
Fraser International College	Alaei	Navid
Kwantlen Polytechnic University	Macleod	Colin
	Nyenhuis	Michael
Langara College	Belchev	Eugene
	Lo	Michael
North Island College	Cameron	Jeannie

Northern Lights College	Cui	Hongbin
Okanagan College	Brown	Stephen
	Hurtubise	Claude
Quest University	Matthews	Asia
Selkirk College	Henderson	Doug
Simon Fraser University	Gray	Justin
	Perera	Harsha
Thompson Rivers University	Boroushaki	Shirin
	Feldberg	Suzanne
	Rahmati	Saeed
	Rollans	Shane
	Shaikh	Mateen
Thompson Rivers University – OL	Pardoe	Iain
Trinity Western University	Pimentel	Sam
University of BC Okanagan	Broughton	Wayne
University of BC Vancouver	Dunham	Bruce
	Nagata	Wayne
University Canada West	Ha	Jeffrey
University of the Fraser Valley	Affleck	Ian
	Garaschuk	Kseniya
University of Northern BC	Beveridge	Erin
University of Victoria	Butterfield	Jane
	MacGillivray	Gary
Vancouver Community College	Karavas	Costa
Vancouver Island University	Bigelow	David
	Slonowsky	Dean
Yukon University	Semple	Jaclyn
Undetermined/Retired	Hossein	Amir
	Neufeld	Leo

98th BCCUPMS Meeting Statistics Subcommittee Meeting Minutes June 18, 2020

Venue: Zoom online meeting

Time: 11:00 am to 12:15 pm

Present:

Chehra Aboukinane (Ascenda), Ian Affleck (UFV), Mahshid Atapour (Capilano), Stephen Brown (Okanagan College), Susan Chen (Camosun), Bruce Dunham (Chair, UBC-V), Dan Henschell (Douglas), Simin Jolfaee (BCIT), Zahra Jiwani (Ascenda), Costa Karavas (VCC), Kevin Keen (UNBC), Mary Lesperance (UVic), Michael Lo (Secretary, Langara College), Colin Macleod (KPU), Harsha Perera (SFU), Sam Pimentel (TWU), Shane Rollans (TRU), Mateen Shaikh (TRU), Peter Sinclair (Capilano), and Dean Slonowsky (VIU)

1. Approval of Agenda
 - The Chair added an item about the Statistics Subcommittee Chair Election after Item 6.
 - The approval of the modified agenda was moved by Susan Chen and seconded by Dan Henschell.
2. Approval of Minutes from Statistics Subcommittee Meeting from 97th Meeting
 - The approval of minutes was moved by Chehra Aboukinane and seconded by Costa Karavas.
3. Matters Arising from Minutes
 - Item 5 (High School Statistics 12) was brought up for further discussion. We are encouraged to have a chat with local high school. Susan did contact some school teachers but did not get any response. The Chair suggested to contact BCAMT (BC Association of Mathematics Teachers) for the reaching out. He also shared his experience with high school teachers near UBC-V.
 - Item 6 (Open Access Resources) was also brought up for further discussion. There was encouragement to register for StatSpace (<https://statspace.elearning.ubc.ca/>) as instructors to get access to extra resources.
 - Item 9 (Camosun Department Name Change) got updated. Camosun Dean and VP believe the name would be reverted back, but it is not confirmed yet. Susan is appreciative about the support this group has provided.
4. Block Articulation of Statistics Courses
 - The Chair mentioned that UBC-V would try to avoid unassigned science credits as it creates more anxiety among students and more work for the faculty.
 - If one-to-one does not work it is highly encouraged we consider doing “block transfer” of sets of courses, where appropriate.
 - Courses should ideally be under the same subject code (like MATH or STAT).
5. Articulation of Data Science Courses
 - UBC-V has been running DSCI 100 (Introduction to Data Science) for about two years. It only has MATH 12 as pre-requisite.
 - There will be a new second year Data Science course (STAT 201) with DSCI 100 as pre-requisite. STAT 201 has similar content as STAT 200 but with more Data Science favour.
 - DSCI 100 and STAT 201 will be part of the Statistics major in the future. They also form part of the Data Science minor.
 - The Chair encouraged others to consider creating data science courses and establishing transfer credits.
 - TRU has a Master of Data Science and they are planning to roll out a few 1-credit lower division courses. It is believed that it might be hard to articulate one-for-one.
 - Interested parties were invited to contact the Chair for more information about DSCI 100 or STAT 201.
6. Teaching, Assessment, and Resources for Online Learning in Statistics (Susan Chen, Camosun)
 - Susan asked if there were any recommendations in online teaching Calculus-based Introductory Statistics.
 - Mateen was planning to have more low-stake project-based assessments.
 - Andrea was planning to introduce more statistical thinking in the assessment, ask students to bring in statistics-related things happening around them. Grades will be based more on collaboration and presentation.

- Kevin Keen used proctored exam in undergraduate courses. He also used multiple choice questions in lower-division courses on Blackboard.
 - The Chair shared his experience with WeBWork and encouraged others to explore it.
 - Zahra tried an assessment with an online part and a hard-written part.
 - Susan shared with us that 80% surveyed students wanted to have asynchronous classes.
7. Election of the Statistics Subcommittee Chair
- The two-year term of the Statistics Subcommittee Chair for Bruce Dunham is up.
 - He was willing to stand for election again but also welcomed others to participate.
 - Bruce was nominated by Susan and seconded by Costa.
 - Bruce was the only candidate and he will the Chair for another two years by acclamation. (Voting: 16 Yes, 2 Abstain, and 0 No)
8. Any Other Business
- Articulation agreement will be kept intact during these times.
9. Motion to adjourn
- Susan Chen moved to adjourn and seconded by Dan Henschell