

100th BCcupms Meeting - Statistics Subcommittee Minutes

May 18, 2022 – Blended (Zoom & In-Person)

Attendees: Mahshid Atapour (Capilano University), Deanna Baxter (Capilano University), Alex Blair (North Island College), Susan Chen (Camosun), Bruce Dunham (UBC-V), Maja Grubisic (Langara), Longlong Huang (UFV), Claude Hurtubise (OC), Simin Jolfaee (BCIT), Mary Lesperance (UVIC), Colin Macleod (KPU), Ian Pardoe (TRU), Harsha Perera (SFU), Sam Pimentel (TWU), Mateen Shaikh (TRU)

Apologies for absence: Andrea Hyde (College of The Rockies)

Chair: Bruce Dunham

Acting secretary: Maja Grubisic

1. **Introductions** – Bruce, Harsha, and Maja were present in person, everyone else contributed via Zoom.
2. **Approval of Agenda** - Motion: Harsha Perera, Seconded: Maja Grubisic, Passed
3. **Institutional Reports** – Institutional representatives had covered major developments in the main session and associated written reports; additional details specific to statistics are included here:
 - i. Camosun College, SFU, UVIC, and Trinity Western U all introduced new data science and/or machine learning courses. In particular, SFU have created a new course, STAT 271, especially for computer science majors.
 - ii. Overall, statistics courses enrollment marginally decreased across the province in the past year.
 - iii. Mashid Atapour has developed STAT 310, design of experiments course.
 - iv. Longlong Huang developed STAT 488, a statistical consulting course.
 - v. Ian Pardoe is developing new introductory course STAT 1201.
 - vi. Maja Grubisic is developing a new STAT 3225 statistics course for bioinformatics students.
 - vii. From May 2023 UBC-V will require students to have an introductory statistics or data science course completed before applying to enter a statistics specialization.
4. **Statistics 12 High School** (Bruce Dunham):
 - While on leave in fall 2021, Bruce co-taught Statistics 12 at Centennial High School in Coquitlam (class of 20 students).
 - He created many resources (around 85 in-class activities will be uploaded this summer to StatSpace at <https://statspace.elearning.ubc.ca>).
 - Statistics 12 is not designed to be equivalent to a standard introductory class such as STAT 200 at UBC; it is more similar to some 100 level courses such as the ones at SFU (statistical thinking, stats in the news).

- Statistics 12 is not a required course, it is an elective, so as of now not many students will take the course across the province. Colleagues are invited to support any local teachers thinking of offering the course in future.

5. **International Statistical Literacy Project poster competition** (Bruce Dunham):

- Colleagues were invited to keep in mind the International Statistical Literacy (ISLP) poster competition, held every two years. There are several age bands, including one for undergraduate students. Entries must come from groups – individual entrants are not permitted.
- The Education Committee of the Statistics Society of Canada will assist in coordinating the competition within the country.
- The timing of the poster submission may be a stumbling block for undergraduate entries, as the events happens next calendar year and teams have to register by February 2023 with submissions nationally in March (exact dates have yet to be finalized).
- Prizes are prestigious: there will be a Canadian prize, and the national winners go to international competition where cash prizes are available (see https://iase-web.org/islp/Poster_Competition_2022-2023.php for further details).

6. **Comparison of teaching modes** (Susan Chen): There was a discussion comparing online and face-to-face (F2F) teaching with respect to pedagogies and student behaviour:

- Some colleagues reported longer waitlists for blended courses than in-person courses
- Susan reported students in blended courses have done better than in-person (except for the engineering courses);
- Bruce mentioned that there is little evidence that students learn concepts from watching videos, although research suggests some practical skills such as how to tie a nautical knot may be amenable to learn via video. Obliging the students to do a pre-class activity – such as reading and answer some questions – by having an online quiz counting towards the final grade can work well.
- Alex Blair commented that students want F2F classes but then they don't step up to the plate.
- Bruce set up open book online exams, the only rule was that they were not allowed to communicate.
- Susan said that she prefers a hybrid course because it allows flexibility to students (if they are single parents, work part or full time etc.).

7. **Any other business:** Susan suggested sharing ideas for open textbooks. Some mentioned included:

- Openintro.org
- Rafalab.github.io
- Moderndive.com

There does not appear to be an open source text suitable for introductory courses for engineering students.

8. **Election of Chair:** Bruce Dunham will continue as the chair of the statistics subcommittee.

9. **Motion to Adjourn**

Motion: Maja, Seconded: Susan, Passed