

# ABE MATHEMATICS WORKING COMMITTEE MEETING

Thursday, February 28 & Friday, March 1, 2013  
Vancouver Community College (Downtown Campus)

Co-Chairs: Robert Ferro, Yukon College  
Costa Karavas, Vancouver Community College

## THURSDAY, FEBRUARY 28, 2013

Institution:	Representative(s)
Camosun College	Alison Bowe
Camosun College	Catherine Frost
Capilano University	Richard Brand
Capilano University	Sylvie Trudel
College of New Caledonia	Vida Robillard
College of the Rockies	Wendy Panchyshyn
Douglas College	Hilary Rourke
Kwantlen	Tanya Boboricken
Nicola Valley Institute of Tech.	Stefan Zabek
North Island College	Pat Corbett-Labatt
Northwest Community College	Trudy Dolan
Okanagan College	Donna-Leigh Goodman
Selkirk College	Paul Idle
Thompson Rivers University	John Salvatore
University of the Fraser Valley	Judy Larsen
Vancouver Community College	Costa Karavas
Vancouver Community College	Jean MacLeod
Vancouver Island University	Bob Darling
Yukon College	Robert Ferro
Guests and Presenters	
Christi Garneau	ArticulationCoordinator, BCCAT
Bob Aiken	VCC School of Instructor Education

### 1. Opening remarks and introductions

Robert welcomed the group and participants introduced themselves. Jean MacLeod, VCC Math Department Head and Karen Belfer, Dean of College Foundations and UT programs brought greetings from VCC.

### 2. Minute taker:

Jean MacLeod agreed to take minutes until noon Friday.

### 3. Approval of Agenda:

Motion – Stefan Zabek (NVIT)/Alison Bowe (Camosun) **that the agenda be approved as circulated.** CARRIED

### 4. Review and Purpose of Meeting:

Robert outlined the purpose of the meeting and summarized what we would be considering.

### 5. Approval of minutes of 1 and 2 March 2012, meeting at Douglas College:

Item 10 on page 5 on Thursday, March 1 should read topics 2 through 7.

Motion – Catherine Frost (Camosun)/John Salvatore (TRU) **that the minutes of March 1 – 2, 2012 be approved as corrected.** CARRIED

6. **Action items resulting from minutes of March 2012 meeting:**

7. **Updating members list and transfer guide:**

Robert asked that we all check that our contact information is correct.

8. **Reports/Updates**

a) **BCCAT Update** – Christi Garneau, Articulation Coordinator, BCCAT  
Transfer & Articulation Activities

- Provincial review of the Associate Degree
- Enabling the BC transfer system – phase 1 complete
- JAM – Joint Annual Meeting
- *How to Articulate Handbook* and online Articulation Information Centre
- Articulation committee coordination
- Aboriginal Education articulation
- Research projects
- Transfer innovations projects
- BCCAT Admissions & Research Projects
- A survey of Movers: Students who move between BC Public Post-Secondary Institutions
- 2011 Admissions and transfer experiences of students continuing their studies in BC

Student Transitions Projects

- New student Mobility Model

Marketing & Communications

- Education planner
- New marketing campaign and outreach activities

b) **BCCUPMS** meeting report – Jean MacLeod (VCC)

- continuing discussion around calculus readiness
- monitoring new Ministry of Education courses
- looking at Calculus 1 and 2 core topics

c) **Ministry (AVED)** Update – Tegan Tang –not present - attached report

d) **Adult Literacy Fundamental Committee** Report – Tanya Boboricken (Kwantlen):

There was a lengthy discussion around making it mandatory for a representative from the college wanting to articulate courses being present at the meeting. Robert and Costa will bring the question of in-person representation forward to the steering committee when courses are being articulated.

Action  
item

There was a suggestion that we set up a subcommittee to look at teleconferencing, due to the high cost of travel for some institutions. This will also be brought forward to the steering committee.

e) **Joint Annual Meeting of Institutional Contact Persons (ICPs), Chairs, and System Liaison Persons (SLPs)** Report – Robert Ferro (Yukon) – see attached

9. **Continuation of Reports/Updates** as necessary – not necessary

**10. Discussion on Proposed Intermediate Level Math course** (proposed outcomes listed in 2012-13 Articulation Guide)

There was considerable discussion around the differences between the Intermediate level outcomes and the Advanced (Developmental) outcomes and how they compare to the Ministry of Education courses. One suggestion was to keep the previous Intermediate outcomes and call the course Intermediate – developmental and call the course with the new outcomes Intermediate – algebraic.

**Motion:** Trudy Dolan (Northwest)/Pat Corbett-Labatt (NIC) - **that we retain and name the course with the old Intermediate outcomes “Intermediate level - Developmental Mathematics”, and name the course with the new Intermediate outcomes “Intermediate level - Algebraic Mathematics”.**

Lengthy discussion ensued around the logistics of making this work for multiple pathways.  
CARRIED

Action  
item

A subcommittee consisting of Pat Corbett-Labatt, Trudy Dolan, Wendy Panchyshyn and Bob Darling will look at the outcomes and how they relate to the Advanced Level – Developmental Mathematics course.

**11. Presentation by Bob Aiken – VCC – “Implications of Cognitive Sciences Research on Teaching”**

Bob gave a very interesting presentation on how we learn and what works to engage the brain in a meaningful way.

**12. Discussion on Advanced Level Foundations Course Developed in 2012:**

There was a suggestion that we make Trigonometry an optional topic, and add probability as an optional topic. Optional topics would change from being 3 of 5 to 4 of 7. The concern was raised that if we make this change it could jeopardize the 80% fit requirement with the Ministry of Education course

**Motion:** Tanya Boboricken (Kwantlen)/Stefan Zabek (NVIT) - **that the trigonometry outcomes in the Advanced level – foundations course be moved from core topics to optional topics, that probability be added as an optional topic, and that the optional topics preamble be changed to read “learners must complete a minimum of four of the following seven options, at least one of which is trigonometry or statistics”.** CARRIED

Tanya and Sylvie will work on outcomes for probability to be presented tomorrow.

**13. Articulation of new math courses.**

**Motion:** Stefan Zabek (NVIT)/Donna-Leigh Goodman (Okanagan) **that we accept the following courses as presented by NVIT:**

**Math 041 Introductory Algebra I,  
Math 053 Business/Technical Mathematics,  
Math 055 Introduction to Algebra II,  
Math 057 Intermediate Algebra I,  
Math 059 Intermediate Algebra II,  
Math 063 Algebra and Trigonometry, and  
Math 065 Calculus** CARRIED

Motion: Alison Bowe (Camosun)/Hilary Rourke (Douglas) **that we accept the following courses as presented by Camosun College: Math 052 Intermediate Mathematics 1 and Math 053 Intermediate Mathematics 2 with the addition of similar triangles in Math 052.** CARRIED

Motion: Richard Brand (Capilano)/Tanya Boboricken (Kwantlen) **that we accept BMTH 047 and BMTH 048 as presented by Capilano University.** CARRIED

**14. Review tomorrow's agenda**

Robert reviewed what will be covered tomorrow.

**15. Location for next year's meeting and elections for co-chairs and vice-chair.**

Tanya offered to host at Kwantlen.

**16. Adjourned at 4:10**

**FRIDAY, MARCH 1, 2013**

<b>Institution:</b>	<b>Representative(s)</b>
Camosun College	Allison Bowe
Camosun College	Catherine Frost
Capilano University	Richard Brand
College of New Caledonia	Vida Robillard
College of the Rockies	Wendy Panchyshyn
Douglas College	Hilary Rourke
Kwantlen	Tanya Boboricken
Nicola Valley Institute of Tech.	Stefan Zabek
North Island College	Pat Corbett-Labatt
Northwest Community College	Trudy Dolan
Okanagan College	Donna-Leigh Goodman
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University of the Fraser Valley	Judy Larsen
Vancouver Community College	Costa Karavas
Vancouver Community College	Jean MacLeod
Vancouver Island University	Bob Darling
Yukon College	Robert Ferro
Guests and Presenters	
Wayne Ko	VCC
Trudy Archie	Steering Committee, Co-chair, SFU
Allison Alder	Steering Committee, Co-chair, Selkirk

**1. Business arising from previous day and/or continuation of items not finished in previous day.**

- Outcomes for advanced level – foundations mathematics probability section  
Trudy presented the topics from Foundations of Math 12. One suggestion was that we use the first five topics in her list (see attached). Another suggestion was to use the outcomes from our ABE Provincial level optional topics B(a,b,c) and D(a,b)  
Motion: Tanya Boboricken (Kwantlen)/John Salvatore (TRU) **that outcomes from the ABE handbook Provincial Algebra and Trig be used as the optional probability unit for Advanced Level - Foundations.** CARRIED
- John agreed to take minutes for the afternoon

- Timeline for a new intermediate course (Thursday 12 d, e)
- Arrow on articulation grid – Costa raised the issue about the meaning of the arrow – in some cases it is being used inappropriately, which would be very confusing for registrars’ offices. Costa and Robert will bring this to the steering committee with the goal of replacing the arrow with the asterisk (as it is in the Fundamental level).

Action item

Motion: TrudyDolan (Northwest)/Pat Corbett-Labatt (NIC) to remove the phrase \*=”exit” course for the Fundamental Level and replace it with \* = exit course and delete “for the fundamental level and delete the “Note: ... Motion withdrawn  
 Motion: Richard Brand (Capilano)/Paul Idle (Selkirk) **that we remove the arrow from the grid and remove the “note” from the legend.** CARRIED

6. **Origami** - Wayne Ko gave a very entertaining and interactive presentation on origami and how it can be used to demonstrate mathematical concepts.

3. **Any curriculum projects to look at for next one or two years?**

a) Foundations 12 equivalent course

Both Tanya Boboricken and Costa Karavas agreed that there will be a need to offer such a course at their respective institutions and were willing to work on a subcommittee to develop a set of learning outcomes for an ABE Foundations 12 equivalent course

Cathy Frost indicated that John Boraas had obtained funding (~\$40,000) for the subcommittee work that was started two years ago to develop the ABE Foundations 11 equivalent course. Any amount remaining was to be used for developing an ABE Foundations 12 course. Cathy estimated that there might be \$10,000 remaining.

Action item

It was suggested that a letter be sent to John Boraas to see what \$ amount is actually remaining.

A subcommittee was struck to consist of:

- Tanya Boboricken (Kwantlen)
- Costa Karavas (VCC)
- John Salvatore (TRU)
- Possibly Hilary Rourke or Mary Frances Smith (Douglas)
- Judy Larsen (UFV)

b) Intermediate trades math course - No discussion or interest at this time

2. **Articulation of Essential Skills Courses?**

Alison Bowe (Camosun) asked the group whether it was worth considering having an articulated Essential Skills course. She indicated that Camosun, and possibly other institutions, already offer a variety of “Essential Skills” like courses to prepare students for entry to trades, culinary arts, etc.

Alison suggested that having an articulated Essentials Skills course/s using “Essential Skills” language may increase the visibility of such courses especially in regard to applying for grant money targeted for Essential Skills programs.

Action item

Richard Brand (Capilano) suggested that this should possibly be presented to the ABE Steering Committee since the Essentials Skills program involves covering the full breadth of nine essential skills and that articulating such a course may require the cooperation of other

articulation committees.

As a starting point, it was suggested that Alison send course outlines of each of Camosun's "Essential Skills" like courses to members of the articulation committee to review, and discuss by email, to see if this spurs any further interest in articulating an Essentials Skills course.

4. **Any errors or omissions in current transfer guide to correct?** None

5. **Course Renewal**

It was decided to wait until the committee completes the approval process for institutions proposing to articulate the newly formed Advanced Foundations and the Intermediate – Proposed New Outcomes courses before moving on to the renewal of currently articulated courses.

8. **ABE Steering Committee Report** – Co-chairs Trudy Archie and Allison Alder

Allison Alder spoke to the following:

- Provided an overview of the articulation process (refer document "New to ABE Articulation")
- Chairs report (refer document "ABEASC 2012/2013")
- Articulation reps attendance –an institution's articulation rep can present a course for articulation in person or by virtual means
- Articulation costs - still looking for ways of reducing articulation costs
- Communications

A new virtual site on Moodle has been created for exchange of all ABE articulation communications. All ABE articulation committee members are asked to sign up on the site. Follow the instructions on the document "Getting Started on Moodle". If members have any difficulty signing up, contact Allison Alder (aalder@selkirk.ca)

Action  
item

11. **Elections for co-chairs of ABE Math Working Group**

Motion – Hilary Rourke (Douglas)/Tanya Boboricken (Kwantlen) **that Costa Karavas (VCC) and Robert Ferro (Yukon) be co-chairs for another year.** CARRIED

12. **Elections for vice-chair of ABE Math Working Group**

Motion – Judy Larsen (UFV)/Tanya Boboricken (Kwantlen) **that Bob Darling be vice-chair for the next year.** CARRIED

13. **Selection of next meeting location and dates for 2014**

Dates: March 6 and 7, 2014

Location: Vancouver Community College (tentative, waiting for approval)

Kwantlen, Richmond Campus is the alternate venue

14. **Summary of new business**

- 11 courses articulated
- Changes to Advanced Foundations outcomes (added probability and changed options)

15. **Other business and wrap-up**

- There was no other business

16. **Adjournment 3:30 p.m.** – the meeting adjourned at 3:15

### **Transfer & Articulation Activities (2012/13)**

#### **Provincial Review of the Associate Degree**

- This review was undertaken in light of changes to institutional designations, growth of degree options, and general decline in the use of associate degrees.
- The final report of the Provincial Associate Degree Review Steering Committee was endorsed by the Council's Transfer & Articulation Committee and submitted to the Ministry in January 2013.

#### **Enabling the BC Transfer System – Phase 1 Complete**

- All institutions are now listed as “sending” and “receiving” in the BC Transfer Guide. As a result, 5000+ new agreements have been added since September 2012.

#### **JAM: Joint Annual Meeting**

- Presentations from the highly successful 2012 event are available online at [bccat.ca/articulation/jam](http://bccat.ca/articulation/jam).
- JAM 2013 will take place Friday, November 8, at the Radisson Hotel Vancouver Airport in Richmond, BC.

#### **How to Articulate Handbook and online Articulation Information Centre**

- Under the guidance of an Editorial/Advisory Committee, the *Handbook* was updated to reflect current practice.
- An online Articulation Information Centre featuring updated resources, a blog, and discussion forum will launch in spring 2013.

#### **Articulation Committee Coordination**

- Staff continue to track articulation committee attendance patterns from 2005-present to better inform the system of long-term trends.
- Contact Ms. Christi Garneau at [cgarneau@bccat.ca](mailto:cgarneau@bccat.ca) to request a copy of the records for a specific committee.

#### **Aboriginal Education Articulation**

- Information about the Indigenous Adult Higher Learning Association (IAHLA) institutions is now available on the BCCAT website and an IAHLA Board representative attends Council meetings.

#### **Research Projects**

- **Case-by-Case Articulation:** this report was presented to the BC Registrars' Association (BCRA) and BC Associate Registrars and Managers Association (BCARMA) and a working group has been struck to implement the recommendations. The report recommends that institutions share information on out-of-province transfer requests with the system.
- **Learning Outcomes as a Basis for Articulation and Transfer:** given the increased interest in learning outcomes in a number of jurisdictions, BCCAT is preparing a background paper examining the possible role of learning outcomes as the basis for credit transfer agreements.
- **Qualitative Research on Block Transfer Students:** students enrolled in business programs at Selkirk and Okanagan Colleges will be surveyed electronically in spring 2013. This project is led by Dr. Fiona McQuarrie. As well, members of articulation committees in areas with extensive block transfer agreements will be surveyed regarding their understanding and use of these agreements.

### **Transfer Innovations Projects**

- **Call for Proposals:** Each year a Call for Proposals is circulated for articulation committees interested in receiving Transfer Innovations funding for transfer-related projects in their discipline. This document is available online at [bccat.ca/articulation/committees/projects/](http://bccat.ca/articulation/committees/projects/) or by contacting Dr. Fiona McQuarrie at [fmcquarrie@bccat.ca](mailto:fmcquarrie@bccat.ca).
- **Flexible pre-major projects:** Economics – completing implementation; Biology – completed analysis; Computing Education; completed implementation report and starting institutional signoffs.
- **Other projects:** Adult Special Education program-specific transfer guide; ESL transfer information updating.

### **BCCAT Admissions & Research Projects (2012/13)**

#### **A Survey of Movers: Students who Move Between BC Public Post-Secondary Institutions**

- BC Stats was contracted to survey over 1,600 students who changed public post-secondary institutions between the 2010/11 academic year and fall 2011, to learn more about students' educational goals and motivations for changing institutions, their satisfaction with the institutions, their transfer experience, and how their experience could have been improved.
- The full report, sector-level reports, and executive summary are available at [bccat.ca/publications/research/surveyofmovers/](http://bccat.ca/publications/research/surveyofmovers/). Institution-specific reports are available by contacting Institutional Research offices.

#### **2011 Admissions and Transfer Experiences of Student Continuing their Studies in BC**

- Key findings: of those continuing their studies and transferring to another institution (not including the research intensive universities), 86% received all the transfer credits they expected and 79% were satisfied with their transfer experience. A survey will explore those students not satisfied in more detail.
- Full report: [bccat.ca/pubs/bcstats11.pdf](http://bccat.ca/pubs/bcstats11.pdf); newsletter: [bccat.ca/pubs/rr\\_mar12.pdf](http://bccat.ca/pubs/rr_mar12.pdf).

### **Student Transitions Projects (2012/13)**

#### **New Student Mobility Model**

- The new model is a single, flexible model for tracking and anticipating all student mobility by capturing all registrations (including concurrent registrations in multiple institutions) and showing mobility between sectors and geographic regions.
- The latest STP research results are available online at [aved.gov.bc.ca/student\\_transitions/](http://aved.gov.bc.ca/student_transitions/).

### **Marketing & Communications**

#### **Education Planner**

- BCCAT redesigned the EducationPlanner.ca website to introduce a number of features aimed at increasing user engagement including a simplified search mechanism, keyword-driven Explore feature, and a canvas that allows users to save and share their education plans.

#### **New Marketing Campaign & Outreach Activities**

- New advertisements are featured on SkyTrain cars and buses across the province.
- Career and education fairs across the province (Dec. 2012: Victoria, Vancouver; Feb. 2013: Kamloops, Prince George).

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### **Related Staff Contacts**

Dr. Rob Fleming, Executive Director and Co-chair	<a href="mailto:rfleming@bccat.ca">rfleming@bccat.ca</a>	<i>Council and related projects, Ministry and system relationships</i>
Dr. Robert Adamoski, Assoc. Director, Research & Admissions	<a href="mailto:radamoski@bccat.ca">radamoski@bccat.ca</a>	<i>Research and Admissions Committees and related projects</i>
Mr. John FitzGibbon, Assoc. Director, Transfer & Articulation	<a href="mailto:jfitzgibbon@bccat.ca">jfitzgibbon@bccat.ca</a>	<i>Transfer &amp; Articulation Committee and related projects, learning outcomes</i>
Mr. Mike Winsemann, Assist. Director, Transfer & Technology	<a href="mailto:mwinsemann@bccat.ca">mwinsemann@bccat.ca</a>	<i>BC Transfer Guide, Education Planner, Transfer Credit Evaluation Service</i>
Ms. Christi Garneau, Articulation Coordinator	<a href="mailto:cgarneau@bccat.ca">cgarneau@bccat.ca</a>	<i>Articulation Committees, Joint Annual Meeting, Private Institutions, System Liaison Persons</i>
Dr. Fiona McQuarrie, Special Projects Coordinator	<a href="mailto:fmcquarrie@bccat.ca">fmcquarrie@bccat.ca</a>	<i>Transfer Innovations Projects and select Transfer &amp; Articulation projects</i>

**Ministry of Advanced Education, Innovation and Technology**  
**Adult Education and Skills Development Updates**  
*Prepared for the ABE Math and English Articulation Committees*  
*February 2013*

#### **1. Ministry of Education Consultations regarding K-12 Graduation Requirements**

- For the past 6 months, the Ministry has been closely following the Ministry of Education's (MEd) progress in their development of the Transformative Education Plan (<http://www.bcedplan.ca/actions/pl.php#tabs-2>) for the K-12 system.
- From September to December 2012, MEd hosted numerous consultations across the province regarding K-12 Graduation Requirements to complement the work that was being done for the new Education Plan.
- In the August 2012 and January 2013 planning sessions, representatives from the Research Universities of British Columbia, BC Association of Institutes and Universities, and BC Colleges attended and provided input. Also, MEd indicated that a number of faculty and staff members from some of the colleges and teaching universities attended the September to December 2012 sessions and provided valuable feedback.
- At the consultation sessions, MEd invited attendees to respond to the following five questions:
  - Question #1: What do you think are the core or essential things all students should know, understand and be able to do by the time they leave secondary school?
  - Question #2: Beyond the core, how could pathways for choice or exploration be provided?
  - Question #3: Research is underway with focus on the following five cross-curricular competencies: Communication, Critical Thinking, Creative Thinking and Innovation, Personal Responsibility and Well Being and Social Responsibility  
How do you think students could demonstrate these?
  - Question #4: How could student learning be communicated to: Students, parents/guardians, post secondary institutions/employers

- Question #5: How would you design an awards program to recognize student success in a personalized learning environment?

### **Next Steps:**

- At this time, no decisions or proposed changes to the current graduation requirements are available for review, consideration and feedback. A paper will be prepared and posted on the MEd's website (<http://www.bcedplan.ca/actions/pl.php>) by early April 2013. This will allow members of the public, post-secondary and business representatives to review and provide comments until after the election in May.
- If you have not done so already, please take a moment and send MEd some feedback when you get a chance to review the results of their consultations.

## **2. 2012/13 Community Adult Literacy Programs**

- Every year, the Community Adult Literacy Program helps thousands of adults across the province improve their reading, writing and numeracy skills.
- Grants of up to \$40,000 per program are awarded to community literacy organizations working in partnership with public post-secondary institutions to deliver Aboriginal, adult and family literacy programs.
- In 2012/13, the Ministry provided \$2.4 million to support 68 community-based, adult literacy projects, benefiting close to 6,400 British Columbians.

## **3. Trades Training**

- Our unit additionally has responsibility for supporting trades training in BC's public post-secondary system. Under the [BC Skills & Training Plan](#), the Ministry is undertaking a dedicated initiative to elevate the profile of careers in the trades. These efforts seek to support promotion of, and pathways to, careers in the skilled trades. Key features are messaging, information and experiential learning opportunities for future skilled trades' learners and educators, and engagement and recognition of employers in BC's industry training system.
- In addition, under the BC Skills and Training Plan, the Ministry is investing \$17 million in 2012/13 in new skills and trades training equipment at 14 public post-secondary institutions throughout the province. The funding will help to upgrade existing equipment at each of the institutions and put the latest training tools in the hands of B.C. students.
- The funding for the equipment purchases and replacements at each institution is based upon a review and analysis of existing inventory, current and future program and industry requirements, and current government priorities to provide skills and trades training that is aligned to the needs of the economy in each region.

## **4. Program Contacts**

- Steven Rumpel, Director, Adult Education and Skills Development, [Steven.Rumpel@gov.bc.ca](mailto:Steven.Rumpel@gov.bc.ca)
- Randall Gerlach, Project Manager, Skills Initiatives, [Randall.Gerlach@gov.bc.ca](mailto:Randall.Gerlach@gov.bc.ca)
- Tim Ewanchuk, Trades Training Officer, [Tim.Ewanchuk@gov.bc.ca](mailto:Tim.Ewanchuk@gov.bc.ca)
- Barb Binczyk, Senior Policy Analyst (ESL & Student Transitions), [Barbara.Binczyk@gov.bc.ca](mailto:Barbara.Binczyk@gov.bc.ca)
- Emily Horton, Senior Policy Analyst (ASE, ABESAP, Research), [Emily.Horton@gov.bc.ca](mailto:Emily.Horton@gov.bc.ca)
- Tegan Tang, Education Officer (ABE, CALP & PLAR), [Tegan.Tang@gov.bc.ca](mailto:Tegan.Tang@gov.bc.ca)

**February 21, 2013**

**Adult Literacy Fundamental Working Committee:  
Report for ABE Math Working Group**

- The ALF Working Committee met on Oct. 18 and 19 at Kwantlen (Richmond Campus)
- All reps were in attendance except those from: Native Education College (the rep was attending a different articulation meeting that day), TRU, NVIT.
- Guests present for different parts of the meeting:
  - Allison Alder, ABE Articulation Steering Committee Co-Chair - report
  - Jim Beaton, Kwantlen, Moodle instructions
  - Steph Jewell, VCC Dean of Arts and Science and ALF Systems Liaison Person
  - Christi Garneau, Articulation Coordinator for BCCAT) - update
  - Scott Leslie, Manager of Client Services in Open Education for BC Campus – see below
  - Melinda Johnson (information technology) and Tina Chau (librarian), Decoda Literacy Solutions – demonstrated website and new library resources
- ALF Math courses articulated:
  - Okanagan College – six math courses articulated
  - Kwantlen Polytechnic University – six math courses articulated
  - Capilano University – six math courses
- Grid Clean-up:
  - Douglas DVST courses replaced by MATU
  - CNC – remove Math 010 and 015 from Math transfer guide
  - Institutions that have not yet articulated math courses since outcomes were rewritten: Northern Lights, Douglas, TRU, UFV, NVIT
  - Native Education College has been in touch with Jan and they are planning to rearticulate both ALF Math and English this coming year (Note: Jan has since met with instructors from NEC and this work is well underway.)
  - Since the learning outcomes for both ALF English and ALF Math have been rewritten, courses need to be submitted to the ALF Working Committee Group showing alignment with the six levels in order to remain on the transfer guide; this doesn't mean that they need to have six different courses but that all learning outcomes must be met
  - Motion passed that The Chair of the ALF Working Committee will contact program deans (and copy the ALF representative) to inform them that ALFE and ALFM outlines must be articulated by October 2013. If they are not articulated at the October 2013 meeting, the Chair will send a second letter notifying the Dean (and copied to the ALF representative) that if they are not articulated by the following meeting (October 2014), they will be removed from the transfer guide at that meeting.
  - A representative from the institution must be present at the ALF meeting to articulate courses

- Scott Leslie, Manager of Client Services for Open Education, BC Campus
  - refreshed our memories about Pressbooks and BCCampus
  - Scott demonstrated what the texts look like for users and administrators
  - institutional bookstores may have capacity to use Pressbooks to print on demand
  - for more private material sharing, use SOL\*R to lock down access
  - issues with transferring materials from Word documents; recommend that people compose directly on PressBooks if possible
  - "book sprint" methodology for collaboratively writing books
  - Scott has offered to put the 6 math books on to the PressBooks platform so that we can use it to update the materials; Leanne offered to work with him on this project
  - discussion about sharing fundamental English materials in a way similar to math materials
  
- Next meeting: October 3 & 4, 2013, Camosun College, Victoria (We looked at trying to have meeting same days as Science Group, but they wanted different days and were going to be at BCIT. (There are no ALF classes at BCIT.) We had concerns from some committee members about the days that the Science Group had chosen because it would mean that they were going to be away for too many days in the same week (because of the Thanksgiving Weekend) and they didn't have replacement for their classes. We talked about this at length (at the meeting and on-line after), but the group consensus was to stay with Victoria and the days that we had chosen.
  
- Leanne Caillier-Smith was re-elected as co-chair for another two-year period.
  
- Since the meeting, we have had bad news about fundamental level programming at Douglas College – 8 sections of literacy classes are being cut
  
- Literacy Outreach Coordinators (approx. 50 of them) have been cut around the province – announced in mid-February. Decoda Literacy Solutions not able to make up the shortfall to pay for LOCs; government funding had gone from 2.5 million to 1 million the previous year and Decoda had put funding into it for that one year, but it wasn't felt to be sustainable; kept the half (about 50) that have funding from other sources as well as the government funding

# Summary of Joint Annual Meeting of Articulation Committee Chairs, System Liaison Persons (SLPs) and Institutional Contact Persons (ICPs)

2 November 2012

Submitted for ABE Math Working Group meeting February 28-March 1, 2013

Information gleaned and taken from BCCAT website at: <http://www.bccat.bc.ca/articulation/jam/>

## 1. Keynote address: Fostering Continuous Improvement in Higher Education by Peter Wolfe, Director Centre for Open Learning and Educational Support, University of Guelph

- Developing a program outcomes culture.
- Key Questions
  1. What are the program outcomes that we want to foster in our students?
    - a. Content-driven curriculum
    - b. Outcomes-driven curriculum
    - c. Attributes of the “ideal graduate”
  2. Where in the curriculum are students encouraged to develop the program outcomes?
    - a. Need to do curriculum mapping
    - b. Course-by-course info that has outcomes, assessment, and learning methods
    - c. Semester maps
  3. How do we know whether our programs are successful?
    - a. Program assessment
      - Student work – tests, assignments, etc.
      - 360° consultations
      - Curriculum mapping
      - External reviews, accreditations, etc.
      - Benchmarks, research, literature, etc.
      - Student reflection – portfolios, journals, etc.
  4. How do we embed continuous improvement?
    - a. Refining the blend of people, processes and resources
    - b. Transition requires investment
    - c. Keep momentum
    - d. Continuous improvement is at *least* as important as “reporting”
    - e. Mistakes will happen
- Recommended practices
  - Data-informed, faculty-driven, student-engaged, stakeholder-informed, culture- and context-specific, rigorous and authentic, continuous improvement of sustainable practices, resourced and recognized

## 2. *How to Articulate* Information Centre Demonstration by Mike Winsemann

- Goals
  1. Centralized resource for all articulation information
  2. A living repository for information and best practices
  3. A place to connect with other articulation personnel
- Info centre features
  1. Content based on *How to Articulate* handbook

2. Users able to create and share content amongst institution/discipline
3. Discussion forums
4. Blogs, videos, and tutorials will be developed to leverage collective wisdom

**3. Breakout for Committee Chairs and System Liaison Persons by Robert Adamoski, John FitzGibbon, and Christi Garneau**

- Strategies to ensure meetings are productive
  1. Prepare all participants in advance
  2. Create an atmosphere of participation and engagement
  3. Stay focused after adjournment – follow through and report back.
- Why prepare minutes?
  1. Formal written record of the meeting:
    - Who attended?
    - What was discussed?
    - What decisions were made?
  2. Demonstrates accountability to the system
  3. Provides organizational memory
  4. Helps inform BCCAT research, outreach, and resources
- Criteria for good minutes
  1. Attendance
    - Names and affiliations of members and guests
  2. Institutional Reports
    - Summarize or include as appendices
  3. Motions and action items
    - Clearly identified including who is responsible for following up
- Best set of 2012 minutes—geography articulation committee

**4. Learning Outcomes in a BC Post-Secondary Context: A Panel Discussion (panel members: Chris Ayles, Sarah Dench, Graham Fane)**

- Graham Fane (CapU)
  - Accounting—sought American accreditation Northwest Commission on Colleges and Universities (NWCCU)
  - Pathways for continuous improvement
  - Peer review benchmarking
  - Credibility as teaching and learning university
  - Increased mobility for students
  - Increased national and international credibility
  - Had accreditation site visit
  - Developed model for rolling out accreditation
- Sarah Dench (SFU)
  - Accreditation NWCCU
  - It forced better focus on knowledge of vision of institution
  - Self study and report from NWCCA
  - Needed learning outcomes for program (most research universities don't have this)
  - Started with working group
  - All information can be found on VP Academic website at SFU
  - Report to senate in Dec 2012, see above website

- Chris Ayles (Camosun)
  - Not much done with learning outcomes
  - Learning outcomes imposed in 2002 but not held to any new standards
  - Institutional memory not kept
  - Has been more of a benign hoop to go through

**5. The Student Transitions Project: What's New? By Robert Adamoski and Joanne Heslop**

- Future directions
  1. Governance and Operations Management
  2. Communications and Reporting
  3. Data Collection and Analysis
    - Collaborate to develop, execute and report relevant research
    - Develop new analytical variables and data elements
    - Explore new data linkages
    - Develop new research areas
    - Beyond descriptive research
- Student transition rates remain stable in BC – about 52%
- Immediate-entry transition rate follows grade 12 graduation rate
- Dual enrollment (enrolling in more than one institution at a time in fall term) is around 6000 to 7000 out of 300 000 students (2.1 % of students)
- Student mobility rate trends – around 18% of students took a mobile pathway into post-secondary institutions
- Student mobility between sectors or regions in BC public post-secondary system (see STP website: [http://www.aved.gov.bc.ca/student\\_transitions/](http://www.aved.gov.bc.ca/student_transitions/))

**6. Update on Provincial Associate Degree Review and Consultation by Rob Fleming**

- BC associate degree first established in 1992
- Only provincial credential with common curriculum framework
- Associate degree last reviewed in 2000
- Post-secondary system has changed substantially since 2000
- BC Transfer Key Trends
  1. Changes in institution mandates and roles
  2. Greater student diversity: social, economic, and demographic
  3. More complex student mobility patterns
  4. More student education planning variables
- Associate Degree Key Trends
  1. Credentials in public institutions rose to 1844 in 2004 and declined to 865 in 2008. Credentials increased to 937 in 2010
  2. Over 50 concentrations developed to address student interests and institutional strengths
  3. Associate degrees are not available in career/professional areas, although there are university baccalaureate degrees
  4. Associate degree provides 60 block transfer credits, but few institutions now offer admissions incentives
  5. All courses must articulate with at least one public research university: UBC, SFU, UVic, UNBC
  6. Arts and science degree programs are now offered by most of BC's 11 universities

7. Research indicates associate degree graduates are among the most successful transfer students
  - Review committee seeking feedback on current function of associate degree as well as possibilities for it as a flexible, academically rigorous access/transfer and/or stand-alone credential valued by students and public
  - Associate Degree Discussion Issues
    1. Access
    2. Autonomy and quality assurance – few elective credits outside Arts and Science
    3. Credential confusion – inconsistency of expectations and purpose
    4. Flexibility and transfer – inflexibility as a transfer vehicle; preferential admission incentives for holders of credential are limited
    5. Outcomes for careers – general outcomes of associate degree may not meet workplace requirements for careers in areas not requiring baccalaureate degree or associate degree may meet such requirements but employers are not aware of the credential
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**Proposed Advanced Level: Foundations of Mathematics Outcomes for Probability (proposed by Tanya Boboricken)—referred to in Friday’s agenda item #1.**

F) Probability

- Calculate the value of factorial expressions with or without technology.
- Find the number of permutations of  $n$  objects taken  $r$  at a time.
- Find the number of permutations when some objects are alike.
- Distinguish between combinations and permutations.
- Find the number of combinations of  $n$  objects taken  $r$  at a time.
- Compute classical probabilities.
- Compute empirical probabilities.
- Use tree diagrams to find sample spaces and compute probabilities.
- Use tables to find sample spaces and compute probabilities.
- Compute probabilities using combinations.
- Compute probabilities using permutations.
- Find the probability of two or more independent events all occurring.
- Find the probability of two or more dependent events all occurring.
- Find conditional probabilities.
- Find the probability of draws with or without replacement.
- Identify binomial experiments.
- Compute probabilities of outcomes in a binomial experiment.
- Construct a probability distribution.