

## Chemistry Articulation – May 5, 2012

### Northern Lights College, Dawson Creek

**Attendees:** Jimmy Lowe, Neil Meanwell, Tony Cusanelli, Lyndia Susag, David Dick, Brenda Louie, Jennifer Au, Margaret Heldman, Sherrie Wang, Cynthia Broberg, Sandra Hoffmann, Carl Doige, Elizabeth Lund, Cameron Forde, Bruno Cinel, Paul Brown, Les Burtnick, Paul Phillips, Margot Mandy, Ernie Prokopchuk, Reto Riesen, Andrew Mosi

**Regrets:** Jared Taylor, Julie Peschke, Amanda Gronotte, Paul O'Conner, Court Ashbaugh, David Fenske, Sandy Briggs, Judith Wallace, Duane Friesen

- 1) Meeting called to order by Wim Kok, Geography Instructor at NLC (geography articulation occurring simultaneously)
- 2) Welcome address given by Steve Roe, Dean of Academic and Career Programs, NLC
- 3) Mike Winsemann, BCCAT – update on upcoming changes.  
Over the last year they have been going through a consultation which presents their vision for the BC transfer system moving forward, called the enabling BC transfer system. Can find out more info at their website: [bccat.ca/enabling](http://bccat.ca/enabling). The premise is that it's time to have a transfer system that is reflective of current student mobility patterns. Looking at having **every** institution listed as both sending and receiving in the BC transfer guide. The feedback was overwhelmingly in favour of going in this direction. This is to be implemented by Sept. 1<sup>st</sup>, 2012. Within the enabling recommendation, institutions will have the option of being a full, partial, or passive institution. Full - receive requests from everyone, as the current receiving institutions are. Partial – receive requests from certain ones, as chosen by the institution, and for the rest credit would be declared as business demands. Passive (if not very many instances of receiving) – listed as receiving but wouldn't receive formal articulation requests, instead would be able to declare credit for courses whenever a student shows up and you evaluate the transcript, will be able to declare it and publish it into the BC transfer guide. If institutions maintain their own internal BC transfer tables they could get them published into the BC transfer guide for everyone to see. They are trying to remove barriers to the transfer of information, removing the constraints that are currently in place and providing institutions with flexibility to decide the size and scope of their role in the transfer system.  
Question from floor: will this be decided institutionally or departmentally? On an institutional basis. Communications have been with the registrar's office and then it is up to them to do the internal consultation, should go to department or Dean's level (not Senate of Ed.council issue). Q: If transfer credit is in transfer guide than everyone can see it? Yes. If it is a one-off and don't want to set precedent then you wouldn't publish it. More information at the website regarding this initiative.
- 4) Jennifer will be chairing the meeting
- 5) Thanks to NLC for volunteering to host the articulation by Bruno. It's appreciated.
- 6) Introductions

- 7) Bruno motioned for approval of the agenda. Seconded by Jimmy.  
Added to Other Business: Transfer issues from private colleges outside of BC  
Unanimously approved the agenda as amended. Motion carried.
- 8) Margaret motioned to approve the minutes. Seconded by Elizabeth.  
Changes to minutes: Ken MacFarlane quoted as waste allowed down the sink if  $\text{pH} < 5$  (item 9).  
Doesn't sound right. Possible a range was given - will be looked into and amended.  
*(Later update by email: in the GVRD waste is allowed down the sink if its pH is more than 5.5 and less than 10.5.)*  
Unanimously approved as amended. Motion carried.
- 9) Presentation by Jimmy Lowe re:BCCAT - as per powerpoint. He will forward it to everyone.  
Unofficially Jimmy is the contact person for the chemistry articulation, the liaison. The full report on the enabling is on the BCCAT website as Mike mentioned. Handout package has list of pending requests to go through. Q: who is the person to contact for receiving institution if there is a pending request that needs to be followed up on? It doesn't actually say. Start with the chemistry person at the articulation. Q: If it has been decided that it is no credit or unassigned credit, will it be sent to us again and again? We've had a request that has been evaluated and that we will not give credit for but we keep getting the same request over and over again. The sending institution's registrar may be continuing to send it out. Margaret suggested that maybe there is a role for BCCAT – let them know there is no credit for the course and to cease further similar requests. Christi Garneau's name is on their document, with her contact information - maybe give her a call.  
On the BCCAT website, articulation resources companion is available for those who would like more info. Articulation minutes are also posted on their website. These need to be submitted within 2 months after the annual meeting.  
They will need to know when and where next articulation meeting will be so they can attend... at Capilano Univ. next year. They have a research update regarding teaching science online – linked to Paul Stacey, director of BC campus, and also tied to the NANSLO project. Will get update on this later.
- 10) NANSLO update by Neil Meanwell, chemistry discipline panel. It stands for North American Network of Science Labs Online. Current project builds on the success of the open educational science course and specifically the remote web based science laboratory. RWSL developed by BC Campus mainly, Ron Evans at NIC. System of using specialized computer software and robotics to do labs in a remote location. Mainly an initiative from the Colorado Community College System, CCCS, consisting of 13 colleges. The aim is to develop three 1<sup>st</sup> yr university level science courses: biology, chemistry and physics. 15 month project. Intention is integrating the RWSL technology into the lab portion of the course and to replicate the remote lab, currently operating at NIC, in Colorado. Unfortunately Neil couldn't attend workshop at North Island College due to teaching commitments. Standard 1<sup>st</sup> semester course. Available online... can send link for it. Using a lab kit for many of the labs and some using RWSL technology. Many under development. Q: are they hoping to replicate this lab throughout North America? The idea is to get a network of these robotic labs across North America so it would allow coordination of labs. They are replicating the lab in Colorado. Q: Kit mailed to student? Yes but technological problem for developing labs in Chemistry is quite difficult. Physics is

more open to the use of robotics. Ongoing process to incorporate into the Chemistry side. Mainly for Physics since it lends itself better to this. At a very preliminary stage, still need a lab technician to set up solutions. Ultimately, Biology doing dissections by robotics but a long way down the line. Kwantlen Polytechnic Univ. used a RWSL lab in their Physics dept. NIC using those labs in Physics 101, 121, Astronomy, and Biology. Exposure to these labs at CCCS. Q: Timeline for development? By September want to set something up. Not pure RWSL, most are lab kits. Intention is to incorporate those labs more and more. Q: Funding and access? Details aren't known. Advantages: labs available outside of normal working hours. Q: Anything they want back from us? Neil will continue as a discipline adviser and continue with the updates. Using some of the BC Campus developed open learning theory courses.

11) Institutions failing to send representatives to articulation.

Several members missing from articulation meeting, many due to lack of institutional financial support. The BCCAT guide is very clear: if an institution wishes to offer a program then they must send a representative. Discussion ensued. .

Motion: We support the continuation of face-to-face annual meetings that rotate from institution-to-institution, spread out geographically across BC. Further, we formally request that BCCAT conduct a survey of articulation participation to institutions across all disciplines, requesting participating institutions provide budgetary information on the level of support for articulation and to ask BCCAT to make recommendations to the Ministry of Advanced Education about how face-to-face annual meetings are going to be done by Margot Mandy. Bruno Cinel seconded. Carried unanimously. Paul from Trinity Western, participants from outside the BC govt. funded system, shared that their institution thought it was extremely important to participate so they put it in the budget.

Who will talk to BCCAT? Jennifer.

Discussed the downsides of videoconferencing.

BCCAT opened up our membership to the neighbouring province. Just starting conversation with Alberta.

Q: Which institutions aren't here? 9 out of 30 not here while last year only 1 wasn't here... difference?

Committee thanks to Wiley for sending money to help cover articulation expenses.

Institutional Reports:

12) Alexander College not present, report submitted.

13) Jimmy Lowe, BCIT - as per report

Received instructional enhancement grants which give release time and helps keep compliment of staff. IEG to do Maple TA, used for Math and Physics already, will be integrating it for Chemistry (internal grant).

14) Neil Meanwell, Camosun - as per report

15) Tony Cusanelli, Capilano – as per report.

Human Kinetics Degree is the 2<sup>nd</sup> degree offering coming online that has impact on science dept... offering first year service courses in the fall and will lead to second year courses. The first was the Liberal Arts degree where we offered a third year course this past year. Expand our offerings next year. Only 4 choices at 3<sup>rd</sup> year level.

Moving away from traditional print books/textbooks. Writing components with intention of working with McGraw-Hill or potentially Wiley to offer course specific book offerings. Reduce 1500 pages down to 250-300 pages in a course specific book and supplement it with Canadianized material. Hopefully to start in the fall term and will apply to our first year courses. Intention to do more and more modifications in the next 3-5 years. Have a specifically designed text where we have contributed large parts of it and that is reasonably priced. Friday May 10<sup>th</sup>, 2013 articulation at Capilano University. Q: How did Chem 300, Chemistry in Society, go? Enrollment was 18, it went over reasonably well. Plan is to expand our offerings next year and build more students into that. Q: Will the developed textbook be covering Chem 101 to 111? Yes, it needs to have that stream. Q: Will you be willing to share with another institutions? Yes. Publishers have come far: willing to take it down to the one word level. McGraw-Hill has a program called "Create" that can be found online. Can pick chapters of different books and they are willing to accept our contribution and incorporate it into their template... called 'free flow' work. Q: resale value? Their book manager is very receptive to selling it again... some aren't so could be hard to resell elsewhere. Q: ebooks? Want useful print version... then next evolutions would be ebook. Pkg in print form is their students' preference right now. Q: Online support of textbook? So much available online, lots of complimentary information... feedback from students is that they are overwhelmed by it all and need a carrot to use the additional resources. Have to be really integrated well for them to use it. Kahn academy... tons of incredible info on youtube. Short and sweet and very accessible but again needs to be integrated into classroom to be used. Q: Book details? Soft cover and can make it customizable... 5 chpts into 1 of stoichiometry, in the order that it's taught. Q: What is the buy back? Not just that. Attrition on the front end... the book would be 1/3<sup>rd</sup> of the cost which would get more students actually buying it. Traditional book sales are heading way down. Q: compiling details? They have been given the autonomy to create it and compile it. Will be a huge amount of work but important to have that autonomy.

16) Lyndia Susag, College Of New Caledonia - As per report.

Many scheduling errors due to cuts but obviously money is an issue. Upside: mining students coming in with 2 year program. Tried Sapling learning for the organic chem, online tutorial. Very quick setup. Only 1 of 11 used it but really helped the student. Have to integrate it more in the course to have more students use it. Huge reduction in price because they started it late, only \$14/student to sign up for it. TRU and BCIT looking at using it too. Cost would come down with more students and more courses. Very user friendly and support is great. If started late, the whole semester was still all there. Wiley has collaboration with Sapling, but cheaper if bought separately from Sapling. Also partners with a few other publishers. Fantastic questions in conjunction with the textbook.

Q: Mining program chem courses? Chem 11 and maybe 12, Chem 113 and 114.

17) Brenda Louie, Columbia College – as per report.

A year from now, should be in a new building - private college so big undertaking.

Have a second yr organic course - full year course compressed over the summer. Has 6 students – but will still go ahead. Needed for their associate of science degree. Also have a high-school program, with 60 students in this, in which they can complete the Dogwood requirements.

18) Coquitlam College not present, report submitted

19) David Dyck, College of the Rockies – as per report.

Intro to Environmental Chem is very popular for arts majors looking for a lab based science elective. Also have a Teacher Education Program with UVic and many from this program take this course and its sister course Environmental Biology. Strong University Studies Math & Science Advisory Committee - members from industry. They are big proponents, helped to raise our profile with marketing and advertising. Only 2<sup>nd</sup> year offering is organic chem - not sure if it will continue for that much longer. Have a new pre-engineering certificate which will hopefully increase our enrollment in chem. Q: where do they go with it? An agreement in the works with UVic for transferability, to be accepted into 2<sup>nd</sup> year. Two specific engineering courses that needed to be developed, one ready. Q: Engineers to teach additional courses? They have an engineer and there was a big push from industry. Q: Prerequisite for 1<sup>st</sup> yr Chem? Chem 12 and Math 12. Chem 113/114 from CNC transfers into UNBC engineering but can't get into engineering with it at UBC. Q: Chair release time – full time? Supervise 45 faculty over a number of areas. Full time job and more.

20) Douglas College not present, report submitted

21) Jennifer Au, Kwantlen – as per report.

Considering how many service courses are needed. Deans make the first cut, followed by a number of open houses to collaboratively make second cuts, and then it would go to the senate for approval. Board has final approval of enrollment based on available resources of institution. Q: what does Environmental chem course transfer into? Environmental Chem – not articulated to transfer. It's an internal service course for environmental protection program. It's a science credit. Offer a course for students in Arts to get science credit which is 1101, a forensic course, CSI.

22) Andrew Mosi, Langara - as per report.

Developing an online lab component for our first online course. Had one test student who couldn't attend the lab so did it as an online lab.

Switching to Desire2Learn from Blackboard. Publishers have their own websites for online support – wondering if they can support what we are using instead of their own online system, provide materials that could be integrated into our system. Good to mention to textbook publishers to see if we can get that support. Platforms that are being used by others? Blackboard being phased out. Campus cruiser mentioned. Most now using Moodle and D2L. Q: How is the term online being used for this lab? The lab manual is online, submission of labs and feedback is online. Not really the lab that is online... it's the communication that is online. NANSLO is more thought of as online, includes webcam shots of various stages, dynamic video, etc. Many interpretations/terminology for online: online, remote labs, kits, virtual, simulations, hybrid labs, and blended delivery. Q: want to get away from shipping? Don't want to have to develop kits but have it simple enough that students can find the materials or ship out just one item that's standardized. Want to keep it as simple as possible.

23) Sherrie Wang, North Island College – as per report

Quality of students seems to be a little bit less than it used to be, probably because they no longer use the provincial exams. Would have more of an effect when you don't get the top-end students. Huge increase in chemistry enrollment due to engineering program, engineering transfer agreement with UVic. Since engineering 1<sup>st</sup> yr requires only one semester of chemistry, developed a one semester engineering chemistry course. Awaiting approval of transfer credit, specifically from UVic and UBC. Q: Are you looking at chemistry RWSL? No – not seen as appropriate for our own courses, only doing the traditional labs.

24) Sandra/Cindy, NLC – as per report.

Attendance a bit lower without the cohort of Nigerian scholarship students this year. Talking about adding Dual Credit Chemistry next year. We've have had the Biology dual credit and that's been very successful. It's in the preliminary planning stages. Changed the order of things in the second semester 1<sup>st</sup> yr UT course; used to have organic chem at the end of the year and had moved it to earlier in the semester. Avoids throwing organic at them when they are getting burned out near the end. They did much better with it this way. Q: Dual credit is an additional course? It's the first semester UT chemistry course but in the second semester for the highschool students to get some University credit already while still at highschool. Same expectations. Benefit for the student is that SD60 pays for it, students pay for textbooks but not tuition here. Dual credit has really taken off in FSJ, the school district has been very supportive of this. SD60 makes money available for this – unique to SD60. Considering videoconferencing chem but chemistry not really conducive to this. Not ideal. Students would have to travel to attend the labs.

25) Reto Riesen, NWCC – as per report.

Major cuts in UC and upgrading. Tried to put some courses online and boost enrolment by offering them to outlying communities but those are gone first. In Terrace they decided to keep the two streams of first year chem and drop the 2<sup>nd</sup> yr organic chem.

26) Carl Doige, Okanagan – as per report.

UT staff not hit with cuts yet; Chemistry running a full program for at least this year. Some tweaking of courses needed to service the Water Engineering Technology program. College is switching over to Moodle. Carl's been making youtube videos, direct instruction for certain aspects of his course, and then enriching in lectures. Not necessarily worse or better. Exploring possibilities. Q: Does Chem 117 - Intro to Forensics have a lab? Yes, not a science course but a science elective for Arts students. Not really a 'chemistry' lab. Kwantlen has a similar course which also has a lab.

27) Elizabeth Lund, Selkirk College – as per report

28) Cameron Forde, SFU – as per report

Q: Advisor for course selection in terms of transfer credit? Cameron is still the advisor until the end of the month and beyond that can forward info along.

29) Bruno Cinel, TRU – as per report

Open learning increasing, face-to-face about the same. BCILN - connecting our instruments to the internet; wanting to hook up your students to our instruments. If anyone wants to give the experience of having access to an AAS - contact Bruno. Simple and easy to use through the computers, programmed with all the connections. Have a determining iron in multivitamin lab but

that can be modified. Will be developing NMR and GC next year. Q: online lab component for first year - enrollment? 36 students. Not running as a cohort but between the two terms throughout the full year: 1505 & 1525 open learning versions of the labs. Q: can someone take them independently, in-class version and then online lab after? In practice it would be difficult to separate the two, in-class version has for example 20% of mark coming from the lab. Possibly list course as in progress for a certain length of time and then substitute in that portion, but not ideal. Best if do both by distance or both in-class. If failed the course then can redo online version of the lecture and have that part of the mark substituted in, as long as it was completed within one calendar year. Q: success rate of online lab? Harder to be successful at because they are doing them independently and assessment is very rigorous. Have to be a strong student or a very motivated student to do well. Not a recipe for success for the majority of students. To do it well, really have to have the instructional design IT side as a team working with the disciplinary expert. Q: Chemical Biology rather than biochemistry? Really focuses on the Chemistry part of biological systems.... interdisciplinary major; bunch of chemistry and biology courses. Capstone course: a fourth year course that is very interdisciplinary. Q: How is environmental program doing? 3<sup>rd</sup> yr courses not offered? Offered on alternate years. Trying to reinvigorate that chemistry major. Enrollment varies a bit... anomalous this year - usually twice as many chem majors as environmental chem. Q: numbers in upper level courses? 6-10 students in 4<sup>th</sup> yr classes.

30) Paul Brown, Trinity Western University – as per report.

Numbers down - emphasis on recruitment. Does anyone else have a single Environment Chem course? others all look pretty specialized. They have a general environmental chem course, looking at book by vanLoon and Duffy. Comment by Bruno: Maintenance and support costs need to be addressed... need that line item in the budget, it's not just getting the equipment.

31) Paul Phillips, UBCO – as per report.

Met ministry targets of over 7,000 students. Others inflating numbers with other programs but all of their other programs are done internally so they don't see any of those students... have to start selling chem. Biochem program is inflating numbers but 100 biochemistry students into second year and only 20-25 out the other side. Very weak students – need to work on that. Q: chem 213/214 similar to what at UBCV? At UBCV, when 233/235 was put in one term what got dropped was spectroscopy so forced into 205 so students need to take that to get their organic spectroscopy in 2<sup>nd</sup> yr. UBCO has a 3<sup>rd</sup> yr spectroscopy course. Concerned that there is a big hole in general elementary spectroscopy, especially with biochemistry students. Problem with internalizing programs: the biology students do not have to do their chem 205 equivalent which is a real problem, not really seeing any spectroscopy. Q: If students take chem203/204 but then go into biology would they get exemption from 213/214? Yes. Biochemists in fact have to go the harder route. Can switch from chemistry to biology with the organic but not the other way around.

32) Les Burtnick, UBCV – as per report.

Students haven't followed the changes, possibly following what the year ahead of them took... Bio now doesn't require 205 but numbers haven't been affected yet. Now 5 sections: 230-250 students each. No drastic changes in numbers.

Two new courses. Added a 3<sup>rd</sup> yr course for arts students - chem in contemporary society, chem 340. No prereq. - not open to students if have taken any univ. level chem, for non-scientists. Other new course is an initiative of the current Dean of Science, has taken general science program and turned it into a combined major in science. New course is Global Challenges: A Chemical Perspective, Chem 341, again a 3<sup>rd</sup> yr course but this time do require some chemistry already. It provides the way to get a Chemistry specialty. It requires 6 credits – one on physical side (Chem 201, 205, Eng 251) and one on organic side (Chem 203, 233, Engineering Chem260).

3<sup>rd</sup> yr courses now completed dissociated from the labs... shared instrument facility opened up a year ago, fully equipped for all upper level labs. Huge catalogue of experiments, have to do so many from different parts of the catalogue for the different courses. Seems to be working.

In a couple of years, looking at redefining ourselves. Maybe changes to try to attract back students diverted to biology stream or bring back engineers. Other institutions would have to resubmit transfer credit agreements and applications.

Reassessing undergrad course programs upcoming as MCAT exams undergoing revision. In 2015 will come in and will need to have quite different requirements at the undergraduate level in order to do well. Big shifts in emphasis between chem, bio, biochem – bringing in the results of the genetic engineering revolution. Will have impacts to lots of areas. Those reviewing it and making recommendations are saying they don't like the job chemists are doing in training the biochemists, like in enzymology and kinetics. Kinetics have been slipping and they're starting to do it themselves. This ties into the review of the chemistry curriculum that will happen over the next few years.

Departmental budget cut but reap the benefit of the Combined Majors in Sciences Program so getting instructor positions filled. 2500 students in 1<sup>st</sup> yr and 1500-1600 in 2<sup>nd</sup> yr. Getting top-notch people through interviews. Q: How does the integrated 3<sup>rd</sup> yr lab work? Biology majors take the 1 credit 3<sup>rd</sup> year lab, 2 credits if chem or biochem major, lab spreads over the year. TAs trained in a number of labs and assigned to 2 or 3 instruments. Q: if they are teaching themselves kinetics in biochem, will there be an effect on lower division courses? There will be a fair amount of overlap, chem 201 overlaps significantly so they may say why do our students need to take your course. Q: where to find out more on MCAT changes? American Society for Biochemistry and Molecular Biology - it's in their report to those that set up MCAT. In their publication - last month Apr (maybe Mar) issue. Maybe google "news on MCAT changes". Q: Why are the new courses 3<sup>rd</sup> yr? maybe because Arts is doing something similar... politics between arts and science for 3<sup>rd</sup> yr arts to have science credit. Q: How does the senate allow biochem to teach a chem course? It's called a biochem course and perfectly valid to teach enzyme kinetics in it. A fair amount of overlap though, also in thermodynamics part too. Q: combined major in science – how many units in upper div chem would they need? Have to declare path of emphasis - 5 streams. It can be found in the UBC catalogue. 9 credits at the 3<sup>rd</sup> or 4<sup>th</sup> yr level and chem 341 is an additional 3 credits that they need to take.

33) Margot, UNBC – as per report.

Record low number of graduates this year, 2. Why? 4 years ago... turbulent phase with failed president about to resign, affecting our intake that year. Continue to have good representation in Northern Medical Program. Challenge to meet govt. targets on enrollment so focussing on recruitment and retention at various levels. Wanted to address things that affected students in their

first semester of study... system of flagging students in difficulty, supplemental instruction, self-assessment tools to decide early in the course if this is likely going to be successful for them. More students opting out in the first couple weeks of the course and taking something else but turnover rate was 60% and now over 90%. Request for faculty position keeps getting declined - need an analytical chemist. Foundation year program discussion but it's going very slowly. Received report from external reviewers of biochem and molecular biology program – recommendation: get programs that pre-meds use as a plan B and identify a common pre-med core. Trying to get 4 programs (Chem, Biochem/Microbi, Biol, and Biomedical stream of health sciences) to sit down together and discuss this; idea is to make it easier for students to move forward in each of these 4 programs if pre-med isn't going to happen. Engineering initiative: have environmental engineering program that is joint with UBC, doing 2 yrs at UNBC, then 2 yrs at UBC and then a capstone semester at UNBC. Northern engineering profession very vocal saying we need mechanical and civil engineers.... Committee formed, curriculum not implemented until we get provincial funding. Included in curriculum package would be a one semester chemistry for chemical engineers course, looking at implementing it for environmental engineers. 2<sup>nd</sup> semester – a hands-on analytical opportunity, a lab based course. This is under development. Also, a minor in environmental chem is under development. Q: details of Honours option? a B standing, maintain a GPA of 3 or greater, apply after 60 credits. An additional 6 credits at 4<sup>th</sup> yr level which is essentially the honours thesis.

34) UVic not present, report submitted.

Question from report: Do you include transition metals in your 2<sup>nd</sup> yr inorganic course? Affirmative responses to question in report: Camosun, SFU, Capilano, UBCV, UNBC, TWU, TRU (will double check), Langara (will check).

35) Vancouver Community College not present, report submitted.

36) Vancouver Island University not present, report submitted.

37) Ernie Prokopchuk, Yukon College – as per report.

Enrollment: 18 first semester, 13 second semester. 5 from renewable resources management program that is admitted on a 2-year cohort basis so enrollment may be a bit lower next year. New mining technology program coming online and Chem 110 is mandatory for that.

38) David Fenske, UFV – as per report (submitted by e-mail).

Other business:

39) Transfer from other institutions outside BC. Margot, UNBC: Their institution is encouraging international students to boost enrolment. Have had a number of articulation requests initiated by unknown colleges - when they've finally gotten materials looked like a regular 1<sup>st</sup> yr course and articulated as such. Got 5 students and all failed so asked for additional materials. By the time we got the papers: didn't indicate textbooks, learning outcomes matched up more with highschool chem... different contact hours depending upon campus. Changed articulation to no credit. Students aren't in a position to succeed so we aren't going to set them up to fail. At Langara, don't recognize the articulation request and just do placement tests. Kwantlen, if not >80% overlap then give unassigned credit and also have Chem 11 and 12 courses if overlap is better there. First round of

documentation looked fine but only upon asking for further info did they see it was a really low level. Giving a heads-up: if initiated by an institution then should ask for a lot of info. NLC does have some kind-of assessment tools but last year had Nigerian scholarship students that were misplaced in UT and ended up in ABE. When an institution wants transfer credit you tend to give it to them, if done by a student can give a prior learning assessment. Looks like a marketing thing by the other institution.

UNBC also approached by a number of private institutions to do laddering agreements. Doing ESL while doing other course work and then wanting to transfer into the 2<sup>nd</sup> yr. Haven't seen students yet but gotten lots of flags on them. Would need to have an evaluation of how they are doing. Academic integrity has also been an issue.

Cindy: Transferability of online courses has been coming up in Biology - biology committee will come up with some recommendations such as: final exam must be invigilated, must pass the final exam, etc.

Q to Margot: have you talked to international dept? Upper admin sees international students as important for enrollment targets but faculty say the students must meet the standards.

Governments shopping for institutions as well, some seem to want to buy spaces in our programs and bypass admission processes. Often they just have to be placed at the right place, sometimes ABE. They have the ability just not necessarily the background to be successful at a higher level initially. Piloting this year at UNBC: while doing tier 5 of ESL they will also be sitting in on a course in their intended major. Should help with acclimatization.

- 40) Margaret Heldman – role is as system liason person (SLP) for BCCAT. Articulation and student mobility is her pet project. Lots of good sharing of info and good conversation around budget and new courses and wants to support that, providing a bigger picture than what we bring as individuals. [mheldman@langara.bc.ca](mailto:mheldman@langara.bc.ca) Q: Role at Langara? Dean of Science – typically SLP is at Dean or director level. Q: Attendance at articulation discussion – is there a role for SLP to be involved? Perhaps - liked the 2 things suggested. Very important to get buy-in from Education Councils. Get curriculum development that is designed to allow student mobility and important to have face-to-face in different institutions to achieve this. Important to visit the rural settings to understand the challenges. Very important that Education Councils be made aware that institutions are obligated to provide articulation opportunities for their subject areas. Also, this motion raises the need for getting good attendance at articulation. It's a problem and happy to take it forward to BCCAT. Face-to-face strengthens the articulation network that we have, builds the relationships.
- 41) Tony has offered to host next year's articulation at Capilano, May 10<sup>th</sup>, 2013. 2014 - Elizabeth offered to potentially host at Castlegar campus of Selkirk. Typically the 2<sup>nd</sup> Friday.

42) Hosts thanked

43) Adjourned