

Computing Science Articulation Committee Meeting

Alberta Council on Admissions and Transfer

Meeting Name	Location	Date
Computing Science Articulation Committee	Room ICT 618 University of Calgary	May 16, 2013
Chair/Facilitator: Wayne Eberly, University of Calgary (see item 3. below)		Recorder: Larry Slack, Medicine Hat College (see item 3. below))
Meeting Time		
Start	Stop	Total Hours
1:00 pm	4:30 pm (approx.)	3 hours 30 minutes (approx.)

List of Members (attendance shown, ☎ = by telephone)

	Name	Attended	Institution	Email
1.	Harris Wang	✓☎	Athabasca University	harrisw@athabascau.ca
2.	Rossitza Marinova		Concordia University College of Alberta	rossitza.marinova@concordia.ab.ca
3.	Libero Ficocelli	✓	Grande Prairie Regional College	lficocelli@gprc.ab.ca
4.	David Gregg	✓	Grande Prairie Regional College	dgregg@gprc.ab.ca
5.	George Ding		Grande Prairie Regional College	gding@gprc.ab.ca
6.	Ron Meleshko	✓	Grant MacEwan University	meleshkor@macewan.ca
7.	Marek Ejsmont		Keyano College	marek.ejsmont@keyano.ca
8.	Andrew Tappenden	✓	King's University College	andrew.tappenden@kingsu.ca
9.	Larry Slack	✓	Medicine Hat College	slack@mhc.ab.ca
10.	Peter Wallis		Medicine Hat College	pwallis@mhc.ab.ca
11.	Steve Letkeman	✓	Medicine Hat College	sletkeman@mhc.ab.ca
12.	Charles Hepler		Mount Royal University	chepler@mtroyal.ca
13.	Paul Pospisil	✓	Mount Royal University	ppospisil@mtroyal.ca

14.	Steven Chattargoorn	✓	NAIT	stevec@nait.ca
15.	John O'Loughlin	✓	SAIT	john.oloughlin@sait.ca
16.	Jim Murtagh		SAIT	jim.murtagh@sait.ca
17.	Paul Lu	✓	University of Alberta	paullu@ualberta.ca
19.	Johnathan Mohr		University of Alberta, Augustana Faculty	jmohr@augustana.ca
20.	Wayne Eberly	✓	University of Calgary	eberly@cpsc.ucalgary.ca
21.	Carey Williamson		University of Calgary	carey@cpsc.ucalgary.ca
22.	Howard Cheng		University of Lethbridge	howard.cheng@uleth.ca
23.	Jocelyn Lamoureux		Alberta Education	jocelyn.lamoureux@gov.ab.ca
24.	Bill Lomax		Alberta Education	bill.lomax@gov.ab.ca
25.	Eric Dohei	✓☎	Alberta Enterprise and Advanced Education	eric.dohei@gov.ab.ca
26.	Jim Samide	✓☎	Alberta Enterprise and Advanced Education	Jim.Samide@gov.ab.ca

Meeting Guests

	Name	Attended	Institution	Email
1.	Ben Stephenson	✓	University of Calgary	
2.	Gerry Donaldson	✓	University of Calgary	gddonald@ucalgary.ca
3.	Franceen Dubreuil	✓	University of Calgary	fdubreui@ucalgary.ca

Agenda Items:

1. Welcome, Opening Remarks and Introductions (Wayne Eberly)	Wayne welcomed us all to the meeting and explained that he would act as “provisional chair” until we completed official selection in item 3 as per terms of reference in item 2. Round table introductions took place including some special guests from the U. of C. Remote participants also took part.
2. Confirmation of Terms of Reference	Wayne circulated a new Terms of Reference document that he had prepared from templates supplied by ACAT. It was agreed that he would “fill in the blanks” and send it out to the group. In conjunction with this there was some group discussion as to the term length for the chair and vice chair positions, and the option for these positions to last three years was chosen. Also discussed/agreed: - Delete the reference to a specific professional body - Government of Alberta section to include some new wording (Jim / Eric to advise)
3. Selection of Chair/Vice-Chair	Wayne Eberly allowed his name to stand for the chair position and Ron Meleshko allowed his name to stand for the vice chair position. After due opportunity for additional nominations and none being received, these were accepted by acclamation. Larry Slack agreed to be the recorder for this meeting.
4. First- and Second-year Curriculum Updates (entry-level courses and other pathways into Computing Science) Group Discussion (each institution to provide a brief update on the status of their courses/programs) (Recorder's note: order of institution is irrelevant and is roughly in order of presentation at the	To assist with accuracy, Wayne asked each participating member to email their updates to Larry. Wherever possible, these will be used below. <u>University Of Calgary (UofC):</u> - A one week bridging course in data structures allowed people to enter from applied to theoretical stream. - Have department retreat next week. - Completed accreditation with CIPS. Languages – Python, some transfer from Engineering which uses something else. Enrollment – first year very good, second year rebounding <u>King's University College (King's):</u> - The core CS program at TKUC remains unchanged. - One change of note is the first-year course: CMPT 260: Web Application Design has been moved into the second year and is now listed as CMPT 304: Web

meeting – based on seating arrangement!)	Application Design. In addition to the number change, the course content will be remapped to include a deeper investigation of the concepts of Web Applications, specifically focusing on dynamic web applications through the use of the LAMP stack. To support this change, a pre-requisite of CMPT 275 (CS 1) has been added for the course. Languages – Javascript, C++. Enrollment – 4 year BSc with about 35 students. Retention c. 50% <u>SAIT:</u> (Detailed handout provided at meeting) - A new software security course which also resulted on some course sequencing changes. - Use of Android tablets popular - Intro to Networking with CISCO courseware Languages – Java based, but also IEE platform, PHP for Web Essentials and C for Security. Enrollment – very strong <u>Athabasca University (AU):</u> Overview Currently the school has fifteen (15) fulltime academics, one (1) part-time course coordinator, and six (6) non-academic staff. At undergraduate level we offer BSc-CIS, BSc-CIS-post diploma, UCCIS programs. As mentioned at our last meeting, we have the game design and development certificate program and BSc-CIS minors being developed. Student enrolments in our programs - We usually have between 30 and 40 new students admitted to the programs each month. - We have 46 new program students enrolled for March: 16 in BSc-CIS, 10 in BSc-CIS PD, 16 in Pre-BSc-CIS, and 4 in UCCIS - We currently have 702 program students in BSc-CIS, 38
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	pre-BSc-CIS - In our BSc-CIS PD program, we have 400 students, 199 students came with a block of 30 transfer credits and 101 came with a block of 60 transfer credits - In the UCCIS program, we have 207 students - We teach both C++ and Java at introductory level - In addition to teaching our own program students, we also teach students from other AU programs, as well as visiting students from other universities across Canada and from other countries - We see more visiting students in some core and popular computing courses Courses offered - We offer 36 comp courses at undergraduate level - In the list we have the following new courses: - o Computer Science 214 - Interactive Technologies - o Computer Science 283 - Effective Use of Myths and Facts in Computer Games - o Computer Science 318 - Introduction to Game Design and Development - o Computer Science 369 - Practical Game Programming - o Computer Science 400 – Computer and Network Security - o Computer Science 470 - Web Server Management - o Computer Science 486 - Mobile and Internet Game Development - o Computer Science 494 - Research Methods - New course development has been slowed down due to funding cuts. Languages – Java, C++, Python Enrollment – see above Medicine Hat College (MHC): - As one response to the budget cuts, MHC has just announced the suspension of admission to the Tech
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	Support stream for upcoming academic year (2013-14). The college will provide one year for those currently in the major to complete their program (i.e. second year will run). There were ten graduates in this major in 2012, but the most recent intakes have seen very heavy attrition and more students choosing the Software stream. - Software and Internet Development major continues. - A small number of students greatly appreciate the chance to transfer to U of L., SAIT and NAIT after completion. Languages: VB.Net, C#, HTML5, Javascript, SQL Enrollment: approx. 30 to 40 in both years (combined). <u>NAIT:</u> - Remapped programs to 15 weeks to assist with transfer to Universities. - Games programming and developing Assets Languages: 9 streams, .Net languages Enrollment: 220 students, low attrition <u>University of Alberta (UofA):</u> - A new certificate in game development requiring an undergraduate degree. This is done jointly between Arts and Science (6 courses) COMP 250 (entry course) and capstone course (450) - Piloting some studio style courses (274/275) within the honors program. Languages: mainly Python with some Java in senior courses. Enrollment: <u>Grant MacEwan University (GMU):</u> - Using Python in the intro sequence. - Discreet Math in second year - Second term Algorithms course not drawing numbers, will substitute other course: _____ - The combination of Operating Systems with Networking was not working well so these topics will once again each have their own course.
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	Languages -: Scratch for 2 or 3 labs then Python for remainder, C, OOP uses Java, IOS programming with Objective C Enrollment – trending upwards. Students don't declare their major until they have completed 60 credits. Grande Prairie Regional College (GPRC): - Ditto from last year with exception of 114/115 removed and _____ included to align with U. of A. - Diploma and Transfer to U. of A. with majority of courses in common. - About 50% attrition for both diploma and UT Languages - Java (objects last), C++ in second year, Arduino, GML (Game Maker Language) Enrollment - <u>Mount Royal University (MRU):</u> First- and Second-year Curriculum Updates Updates for two programs given separately: 1) The Business Computer Information Systems program (our own degree) We've now got a transfer agreement with the U of C that has allowed us better transfer between our programs. We've got a small number of people moving between the programs. We've renewed our agreement with MHC though I don't think there have been any students transferring (yet). We decided against having CIPS accreditation this year since we have to do a program review for the quality council next year. We've decreased our use of Alice. We're currently revisiting it. We're interested in hearing what other people are trying. 2) Computer Science Transfer Program (1st two years of U.Of C's CPSC program) We're currently looking at expanding our U of C transfer program into a degree of our own. Given the current budget climate, we've no idea what will actually happen though. Our rough plan is to keep the first two years of our program the same (as the U of Cs) so as to allow our students to move to U of C or to take a few senior options at the U of C
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	and to allow U of C students to take senior options from us. Languages – UT Transfer: C++ first year, Java second year BCIS: Java first year, Alice, HTML, Oracle, C# Enrollment – Approx. 60 in each program. <u>Concordia University College of Alberta (CUCA):</u> Institutional Updates since May 2012 - Concordia continues to offer only minor in <i>Information Technology and Computing Science</i>, approved in 2011. It requires 18 to 24 credits of Information Technology and Computing Science courses with at most 9 credits at the junior level. This minor combines the two minors in Computing Science and Information Technology offered until 2011. - Concordia removed the core requirement for 4-year majors to take 6 credits in Computing Science and/or Information Technology from the fall of 2012. - More students are choosing to complete a minor in <i>Information Technology and Computing Science</i>. Languages: - o Computing Science courses: Python in Introduction to Computing Science CMPT111, C++ in Introduction to Software Development CMPT112. - o Information Technology courses: HTML and CSS in The World Wide Web IT202; SQL and MS Access in Introduction to Databases IT302; Python in Computer Graphics IT301. Enrolment -slightly better than before but low compared to other institutions. Since ITCS is a new minor, we do not have information on retention. <u>University of Lethbridge (UofL):</u> - no changes to our junior courses - introduced 3 mixed graduate/undergraduate courses at the 4th year level: one in Algorithms, one in Systems, and one in Computational Intelligence. The specific topics may vary from year to year.
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	- since last year, we also started a 2nd/3rd year course on "Practical Problem Solving" which is training for programming contest type problems. Languages - C++ (objects last) for first two years of programming. The upper level courses may require various special purpose languages depending on the topic and instructor. Enrollment - number of new majors enrolled continued to be stable, at around 40-50 per year. Total number of majors: 145
5. Computing Science Courses Transferability of courses Course standards (content, course load, method of course delivery and learning assessment)	When this item came up, Wayne apologized for not being clear on what was intended here. Jim and Eric explained that it had been brought forward. It was thus decided to omit this item, but in some ways it came up again in what is now included as item 6a!
6. Instructor Qualifications	The "best practices" document on this, supplied by ACAT, was discussed. Franceen Dubreil told us how the transfer course assessment/approval system works at U of C, with Paul Lu telling us a bit about how it works at U of A. (U of A's system is a bit more centralized.) It became clear from ensuing discussions that "the system" is very different from one institution to another and in particular it seemed that larger institutions are unable to make the kind of ad hoc, personalized decisions that some smaller institutions undertake because of the number of students involved. That noted: There is room for flexibility here. Franceen advised us that different departments at U of C have *very* different expectations, where "instructor qualifications are concerned. This is possibly a department-level decision, possibly a decanal-level decision... She also advised us that (to her knowledge) the Department of Computer Science at U of C has yet to decline a transfer request on the basis of instructor qualifications. Franceen also reminded us all of receiving institutions' expectations that sending institutions would advise us if

	courses involved in transfer requests were significantly changed, so that transfer arrangements could be reconsidered as needed. We also confirmed that the ACAT document on this issue includes recommendations on this issue, rather than requirements.
6a. Transferability Issues	This was in fact a “spontaneous digression” from item 6 on the broader topic of transfer opportunities. This was somewhat multi-faceted and touched on the following areas: - <u>Methodologies for assessing advanced credit for courses done at other institutions (including foreign institutions)</u> Various institutions handle the challenge of assessment of coursework done in out of province and out of country institutions in different ways. Where the number of requests is low (as is more typical for smaller institutions) cases are considered on an individual basis. This can be a difficult and time consuming process especially for larger institutions. Wayne sums up: “There are excellent reasons why this is not allowed in the bigger schools in our system. We CANNOT undertake this kind of personal assessment, in order to make decisions about course transfers, because we would be acting in bad faith with an unknown number of future students by doing so: We could not realistically promise that the next student to come along would be treated fairly and *consistently.* The volume is much too high.” On a more general note, Steven Chattargoan from NAIT implored the committee to be as generous with transfers between Alberta institutions as we are with outside institutions that we sometimes know a lot less about, and that the need for trained computer professionals in Alberta is strong. He also shared how he “backfills” senior courses from night programs, etc. and has amazingly equitable enrollment between senior and junior courses. - <u>Requirement Waivers.</u> Wayne mentioned that the Computer Science department at U. of C. does not

	want students repeating material learned elsewhere, so in certain cases the department can waive certain requirements and have the students take a more useful alternate course. The difference here is that the students do not actually get advanced credit (for example it may not be in the transfer guide) but at least get some accommodation and recognition for their prior work by being allowed to take an alternate course in place of the “required course” thus giving them a better educational experience overall. - <u>“Block transfer” which Francine advised should more accurately be called “Bi-Program Transfer” arrangements.</u> Block transfer typically describes an arrangement such as “Institution A accepts Courses B1, B3, and B5 from Institution B in place of courses A4 and A7 at Institution A”. Paul Lu commented that these are very rare and perhaps not worth the time to formulate them. U of A does use some form of transfer chart though. U. of L. (not present at meeting) was the best example of a bi-program transfer we could think of in our area where students meeting the necessary requirements can transfer into U of L’s CPSC four year degree from various provincial college diploma programs (“2 + 2”). U of L still mandates various requirements but it is a huge benefit for those students who were not sure they wanted a 4 year degree in the first place or who were able to complete the first two years closer to home, at less cost, etc. Francine mentioned that there are over 900 bi-program arrangements in Alberta! - <u>Challenges of allowing transfer between more technical programs to academic university programs.</u> Paul Lu stated that he does not believe there is prejudice against students from other Alberta institutions (as compared to say those from foreign institutions) but rather there is in many cases a divide between technical training and a more academic university education. He and Wayne however, agreed to make some exploration into how transfer opportunities might be able to be increased between U of A and U of C. Ron Meleshko said he was willing to consider a one on one transfer from say someone from a two year diploma seeking entry to a degree at Grant McEwan where they might be
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	able to get some advanced credit for courses completed. - <u>Learning Outcomes</u> Harris Wang used the example of BC finding this to be a useful approach. Jim and Eric at Alberta Ed also felt that this would be worth pursuing as an aid to facilitate comparing course work completed at different institutions.
7. Alberta Council on Admissions and Transfer – Update (written summary provided by Jim Samide, Senior Data Analyst, ACAT Secretariat)	<u>ACAT/ACAT Secretariat Update</u> <u>ACAT Council Priorities:</u> Sub-committees - • Admission I. The Admission Sub-committee was struck at the October 11, 2012 Council meeting in response to Council's desire to strengthen its focus on items related to admission. • Learner Pathways (outcomes/block) I. The Learner Pathway sub-committee was established to enhance and expand learner pathways through the development of block transfer learner outcomes approach. • Articulation Committees I. Members work together to help research and establish best practices for striking future articulation committees that support the strategic direction of the Alberta Access Plan. The process is designed to expand transfer opportunities and to ensure quality educational programming in Alberta.

- II. A recommendation will be put forward at ACAT's May 2013 meeting regarding two new areas for articulation expansion. Currently there are 11 active articulation committees in the Transfer System.

Spring ACAT Meeting (2 day Strategic Priorities Discussion)

- Sr. Ministry Staff attending the first day – discuss ministry priorities & direction – in particular those related to student mobility and learner pathways.
- Student groups will also be on hand to provide their perspectives on student mobility discussions
- ACAT will be participating in a facilitated discussion to develop their priorities examining what they have been doing and how their work aligns with the ministry and needs of students.
- The two day session will be used to determine which current ACAT priorities should be continued as well as identify new priorities.
- The priorities identified at the Strategic Planning Session will be used to draft ACAT's 2013-16 Action Plan.

ACAT Secretariat

- Jim Samide is transitioning into the ACAT Secretariat to work on the Transfer System (TAARS) and take over the lead on articulation committees

Responsibilities –

- The ongoing day-to-day operation of the transfer system

	• Provide Secretariat support to ACAT. Current Activities - • Assisting with the implementation of ACAT's new non-member transfer agreement policy. • Updating of the various admission related charts (Upgrading/Other Provinces) and other transfer programs information is underway. Once review is complete the updated resources will be mounted on the Transfer Alberta website. • The Secretariat will be presenting on the Transfer System at the upcoming Alberta Services for Students Conference (ASSC) May 15th at Lakeland providing an overview of the transfer system and the resources available on the Transfer Alberta website. • Initial conversation occurring with our IT department about a Transfer Alberta website redesign as well as opportunities to provide students transfer information through alternate format (i.e. possible smart phone application).
8. Other Business/Next Meeting	MOOCS (Massive Open Online Courses): Thanks to Gerry Donaldson for bringing this up. Wayne noted that the handling of MOOCS may be out of our hands in that our institutions may already be making decisions about whether/how to accept and recognize these, at levels about the departmental. Nevertheless, a discussion of these and sharing of information next year would likely be helpful. Ron let the committee know about the upcoming Pan Canadian conference on Admissions at GMac U. June 16-18 for faculty, registrars and senior admin. 2014 Agenda Items: - Pros and Cons of Accreditation - Increased Transfer Possibilities (follow up and

	continuation) - CTS courses update (Bill Lomax) - Impact of MOOCS Next Meeting: Thursday May 15, 2014 (tentative) at NAIT (host Steven Chattargoan)
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Delegated Tasks	Person(s) Responsible	Completion Date
Complete "Terms of Reference" Document	Wayne Eberly with Jim Samide	