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ALBERTA COUNCIL
ON ADMISSIONS & TRANSFER

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Articulation Committee Meeting		
Committee Meeting Name	**Meeting Location**	**Meeting Date**
Computing Science	Northern Alberta Institute of Technology Main Campus Room O102P (Governors' Board Room)	June 27, 2014 10:00AM-2:00PM
Chair: Wayne Eberly-University of Calgary	Teleconference: Phone #: 1-866-792-1317 Conference ID: 7187343	

	Committee Members to Attend	Accepted	Attended
1.	Wayne Eberly (Chair) – University of Calgary		In Person
2.	Ron Meleshko (Vice Chair)- MacEwan University		In Person
3.	Dr. Vive Kumar-Athabasca University		By Phone
4.	Rossitza Marinova-Concordia University College		
5.	Libero Ficocelli- Grande Prairie Regional College		By Phone
6.	David Gregg-Grande Prairie Regional College		
7.	George Ding-Grande Prairie Regional College		
8.	Marek Ejsmont-Keyano College		
9.	Andrew Tappenden-Kings University College		In Person
10.	Larry Slack-Medicine Hat College		By Phone
11.	Peter Wallis-Medicine Hat College		
12.	Steve Letkeman-Medicine Hat College		
13.	Charles Hepler-Mount Royal University		In Person
14.	Steven Chattargoon-NAIT		In Person
15.	Laurel Schmidt – NAIT		In Person
16.	John O'Loughlin-SAIT		
17.	Jim Murtagh-SAIT		By Phone
18.	Paul Lu-University of Alberta		In Person
19.	Harvey Duff-University of Alberta		
20.	Johnathan Mohr-University of Alberta		In Person
21.	Carey Williamson-University of Calgary		
22.	Wendy Osborn-University of Lethbridge		In Person
23.	Paul Franklin – BCCAT		By Phone
24.	Jonathan Mohr – Augustana Faculty, University of Alberta		In Person

Guests/Observers to Attend	Accepted	Attended
1. Alyssa Robertson (Recorder) – NAIT		In person
2.		

ACAT Secretariat/Ministry Staff to Attend	Accepted	Attended
1. Jim Samide – ACAT Secretariat		In Person
2. Eric Dohei– ACAT Secretariat		In Person
3. Bill Lomax- Alberta Education		

AGENDA (* Indicates Sample ''Standing'' Agenda Items)	Time Allotted
1. *Welcome and Introductions	
2. *Institutional Updates: • Learner Pathways or Program Changes/Updates (e.g., New Courses/Specializations, etc.) • Admissions/Admissions Requirements Updates • Student Mobility/Transfer Updates (e.g., New Transfer Agreements, Information about Transfer Credit Awarded, etc.) • Response to ACAT Question for Committee Feedback • Other/General Information Updates	
3. BCCAT Computing Education Articulation Committee – Paul Franklin	
4. *Confirmation of Articulation Committee membership list	
5. *Alberta Education Update	
6. *ACAT Council/Secretariat and Innovation and Advanced Education Updates	
7. *ACAT Question(s) for Articulation Committee Feedback—2014: *How does your program area see, guide, or support student mobility within Alberta? How does your program align with a similar program area in BC to support student mobility within Alberta/BC and Canada?*	
8. *Articulation Committee Question(s) for ACAT	
9. *Identification of Next Meeting Date and Location and Potential New Agenda Items	
10. *Adjournment and Plans for Confirming and Sharing Minutes and Institutional Updates on ACAT SharePoint Site	

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11. *Welcome and Introductions	
12. *Institutional Updates:	

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Steve Chattargoon @ NAIT - This year the DMIT program has re-mapped 3 new streams – the Business Analysis stream, the Systems Administration stream, and the Application Development stream. The DMIT curriculum was attached with further details. This grid, along with the course outlines were re-vamped from the original 44 previous courses. **Wendy Osborn @ University of Lethbridge** - In early 2013, the department of Mathematics and Computer Science approved a modification of the Post-Diploma Bachelor of Science in Computer Science, to require one additional 4th year CPSC course. The main intention for this change is to put our post-diploma students in a better position to pursue graduate studies. This change is awaiting approval from Alberta Innovation and Advanced Education. **Andrew Tappenden @ Kings University College** - Piloting a new course— CMPT 399: Introduction to Artificial Intelligence. If all goes well, should be offered on an every-other-year basis. **Jonathan Mohr @ Augustana Faculty, University of Alberta** - We replaced our previous 3-course introductory sequence (AUCSC 110, a breadth-first introduction to computing science for majors and non-majors; AUCSC 120, an introduction to object-oriented programming using Java; and AUCSC 210, an introduction to algorithms and data structures) with a new 2-course introductory sequence (AUCSC 111, an introduction to programming and problem solving using Python, and AUCSC 112, data structures and algorithms using Java). - In order to make space in our program for an increased emphasis on parallel programming (by incorporating AUCSC 450 into our regular course rotation), we decided to try combining the theory of computing (formerly covered in AUCSC 315) with advanced algorithms (probabilistic, approximate and other selected algorithms, formerly covered in AUCSC 410) in a new course, AUCSC 415 – Automata, Algorithms, and Complexity. - IB Courses Approved for Advanced Standing revised to use the new AUCSC 111 and 112 in place of AUCSC 110 and 120. **Ron Meleshko @ Grant MacEwan** - Introductory sequence of CMPT 101 (Python and breadth-first intro), CMPT 103 (CS1 with some objects), CMPT 200 (CS2, Python, with intro	

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to C at end) now uses a more traditional approach to Python. We found the multimedia approach from Georgia Tech was not meeting the needs of the program. - Reworked our prerequisite structure. Senior courses are now explicitly dependent on certain lower level programming courses (CMPT 201 – C and CMPT 305 – Java/OOP). The original program of study was intended to be flexible, but this was resulting in students with very different backgrounds in our more senior courses. - No longer accept literacy courses for transfer. Typically the ones seen are out-of-province. - In the BSc program, Computer Science has seen a steady increase in the number of CS majors. In science, we are now second to biology in numbers. However, we see very low numbers of students in other disciplines selecting CS as their minor. Also, in our intro CMPT 101, we are seeing fewer numbers of BA students; they can use the course to satisfy their "analytical study". This class is now typically full, so the assumption is that BSc students have taken up the spots that weren't used in past years. **Paul Lu @ University of Alberta** - Started/almost finished process for specialization honors program, into a certificate program. Low enrollment in a specialized program has initiated these changes. Standard Programming course to a tangible computing course – students learn more about hardware etc. - Re-vamp has begun for introductory course to be delivered in a blended-learning style. This includes 2 face-to-face classes per week, plus a class worth of online materials. This course will be piloted Fall 2014. - Science Internship Program – qualified and general majors will be able to participate in 8-month internship placements, when compared to the 10-month and above current internship placements. **Charles Hepler @ Mount Royal University** - Transfer agreements have been set up – students can now transfer between the two programs. - Admissions at Mount Royal have increased from 50 per year to 80 per year. **Wayne Eberly @ University of Calgary** - Modifications have been made to the requirements for the honors program to provide flexibility.	

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Larry Slack @ Medicine Hat College
- Technology Support stream had been suspended for 2013-14 year but has been re-instated with some modifications for the upcoming year. We used this situation to make some updates to second year courses including adding a Cisco course which will especially help those students transferring to the applied degree program at NAIT. We have also included two new courses entitled Emerging Technologies I and II taken by both Software and Tech Support majors which allow a little more self-directed learning in various topics. Students can for example choose to explore programming for mobile phones, experimenting with the raspberry pi, etc. and will spend a few weeks on each topic they choose.
- No new agreements. We miss that SAIT no longer offers their applied degree in networking.
- We continue to have a fairly good international representation.
 	
Vive Kumar @ Athabasca University
- Status quo for the last year for COMP and CMIS courses and programs in ACAT. New courses have not been added to ACAT yet.
- New courses:
  • Comp 230 – storyboard design and development
  • Comp 272 – Introduction to Data Structures and Algorithms (language neutral version)
  • Comp 372 – Design and Analysis of Algorithms
  • Comp 494 – Research Methods
- A new agreement for one course with Thompson Rivers
- Two new agreements with Lethbridge college
- Courses that require students to perform software related coding activities (e.g., software design, debugging, software testing, and so on) as part of assessments are being targeted for big data learning analytics, where student interactions are traced at a much finer level.
 	
Libero Ficocelli @ Grande Prairie Regional College
- Removed first course, however still using JAVA.
- Enrollments are steady, no big changes.
 	
Jim Murtagh @ SAIT
- New Course code:
  • Course CPRG 302 - Web Essentials (new course for 2014-2015): Formally identified as course CPRG 301Web Essentials. This course is common to both the ITSD and ITCS (Information Technology Computer Systems) programs. The amount of changes being made	

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to the outline (>20% from the original created in 2007) required that we create a new course code.
The new outline is designed to better articulate and clarify the outcomes. We have dropped XML as a specific course outcome. We have added Website Security and Mobile Applications as new course outcomes.
- Small course modifications:
  • Course CPNT 220 - Introduction to Networking:
Changes being made are a result of CISCO's changes to their CCNA curriculum. Previously this course covered CCNA Level 1 and 3 exam requirements.   This included an introduction to both switching and routing. The revised course outline now expands on networking fundamentals and routing including IPv6.   Details of switching have been removed. Note: A new course code is not required as the accumulative changes are <20% from the original 2007 course outline.
  • Course DBAD 300 – Introduction to Database Administration:
We use a virtual machine (VM) for the licensed Oracle Enterprise Software. Currently this VM uses a Windows XP operating system. Starting next year, the operating system will be CentOS. We do not do a lot of work at the operating system level in this course, but having the Oracle software on a Unix/Linux flavour is more reflective of where this software is typically installed. In addition, students will be required to use the data dictionary more than they were on a Windows platform which should result in a better understanding of how information about the database is stored, and how to retrieve this information. The course outline has not been changed.
  • Course ITSC 315 - Security for Software Developers:
Based on feedback from the instructors and students in this course's second delivery this past year, we are making a few additional adjustments to the course outline. This includes:
    • making a number of small rewording changes (for grammar or to streamline the objectives).
    • Remove objective 8.5 ("*Explain the block diagram of a common encryption algorithm*").
      ○ *Reason:* This objective covers the mathematical background of a common cypher system. It is too advanced (mathematically) for many of our ITSD students. This issue was discussed with the PhD postdoc who co-taught the course in Winter 2014 and he agrees that this change does not undermine the learning outcome of module 8.
The second module of the course, entitled "Security Principles" has as its focus a topic called "SD3" (Security by	

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Design, Default and Deployment). We will be dropping this outcome. The instructor notes:
 	
    This topic covers the area of threat modelling in software design and development. The problem is that this is a more advanced and esoteric subject than I think we want to expose our students to and because it's quite high-level and theoretical they don't really take to it from what I observed in class last semester.
 	
• Course CMPS 369 – Operating Systems for Software Developers:
    o For next year, Solid State Drives (SSD) will be included within the discussion (module 10) on Secondary and Tertiary Storage.
- Admission Requirements:
Alberta High School Diploma or equivalent with the following:
    o At least 50% in Pure Math 30 or Math 30-1, or at least 60% in Applied Math 30 or Math 30-2, AND,
    o At least 55% in English Language Arts 30-1, or at least 60% in English Language Arts 30-2.
    o All applicants must demonstrate English Language Proficiency prior to admission, including students educated in Canada
        a) Completed three years of full-time instruction in the English language, with a minimum of 12 hours instruction per week; OR
        b) Successfully complete assessment testing
• Early Admission Criteria
- Early admission will be offered to applicants who have achieved or will achieve:
    o The admission requirements, AND,
    o At least 60% in Pure Math 30 or Math 30-1, or at least 70% in Applied Math 30 or Math 30-2, AND,
    o At least 65% in English Language Arts 30-1, or at least 70% in English Language Arts 30-2.
 	
• Selection Criteria
    o All other qualified applicants will remain in selection, and will be academically ranked according to admission requirements and may be interviewed (phone or in-person). Seats will be offered accordingly.
    o Selection is done on a continuous basis until the program has been filled. The first round of selection will start December 1. Applications will be reviewed on a monthly basis.
- Applicants who apply after the program has been filled will be placed on a waitlist and may be invited to complete the selection process if a seat becomes available.	

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- No new transfer agreements established this past academic year. In addition to the agreements listed below, we have entered into discussions with MacEwan University regarding their Bachelor of Science Software Development. - We have sending and receiving agreements with other post-secondary schools in Alberta (see transfer agreement section). In addition, I invite representatives from University of Lethbridge and NAIT to attend the ITSD industry advisory meeting. - We have agreements, sending and receiving, with other post-secondary schools in BC (see above). SAIT has a dedicated articulation coordinator, Dr. Karen McDaniel, who negotiates sending and receiving provincial, national, and international transfer agreements. - Our current applications for the IT program are higher than last year, and in particular the demand for ITSD is very strong. Due to the increasing and very high demand for the SD major, we have decided to increase enrollment for this major from 64 learners to 96. As of May 28, 2014 we have 94 confirmed applicants (full) of which 10 are international students. In addition, we have 140 students waitlisted (nine are international). All current confirmed students have met the early admission requirements.	
13. BCCAT Computing Education Articulation Committee – Paul Franklin - 13 Articulation meetings currently, 8 of these meetings in Spring 2014. Ongoing conversations between ACAT and BCCAT to create stronger connections and develop relationships amongst faculty between institutions. The most immediate way of beginning this process will be to engage BCCAT articulation committees to share history and work over the years. - BCCEC meets twice a year (October and May) to discuss common issues. Members from Alberta have attended in the past. - Projects and basic articulation – 5 years were spent on a flexible pre-major – looking at the first 2 years of a computing program (Computing Science and Computer Engineering). Finding to be useful for students to transfer, but to look at entire program as a self-review or an external review, as well as international articulation. - Research and teaching universities meeting in one room – however ACAT funding has become an issue. BCCAT finds funding from operating budget; as well BCCAT is a requirement to attend articulation. ACAT is pushing to have funding and resources allocated to help articulation. BCCAT also receives some funding for research within the committee. - International students are running into problems with having a limit	

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on the number of online courses they are allowed to take. Blended-learning is proving to cause some problems with whether a course is considered online or not. - Attendance of the Spring BCCAT is combined with the WCCCE conference (1 and a half day conference on Computer Education topics).	
14. *Confirmation of Articulation Committee membership list - Sharepoint site (Computing Science) contains shared documents for committee members to access. This can be used to set up and run meetings. Changes can be made to the meeting minutes by members, contact list is available and access to council minutes as well.	
15. *Alberta Education Update Not discussed.	
16. *ACAT Council/Secretariat and Innovation and Advanced Education Updates - Learner Pathways and Student Mobility in Alberta document – council work was in limbo while council changes and recruitment took place. Robin Fisher has been named the new chair of the committee, previous VPA at MRU. - Learner Pathways subcommittee – working on how learning outcomes can help in facilitating the development of transfer arrangements. Long term goal of producing a document which can act as a tool or guidance for institutions. - Articulation subcommittee – looking at the model that Alberta has, and how can the articulations grow and continue to be supported. The subcommittee has also put forward the recommendation to expand for new committees such as the PLAR (connect all PLAR coordinators across institutions). - SharePoint site has been created for each articulation committee. This site includes template documents such as agenda, institutional reports etc. All members have access to this site and will be able to make changes to meeting minutes. - For the council's 40th anniversary an event will be held to celebrate, as well as a new logo being created along with the website re-design. Student mobility data to gather to help with this development.	

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- Development of a mobile app and ALIS overhaul is underway. Redevelopment and redesign of the TARS tool is also being discussed – replacing with a new tool. - Looking at options of connecting with BC, Saskatchewan and Manitoba. - Starting to put out a monthly spotlight publication – highlighting the work that ACAT is engaged in, broadcasting unique programs, and unique transfer arrangements. - Dual Credit Strategy – ACAT engaging on sharing information on such strategies, and initiate new arrangements. - New Student Mobility Reports – ACAT is no longer using reports sent to institutes to track this information.	
17.	*ACAT Question(s) for Articulation Committee Feedback—2014: *How does your program area see, guide, or support student mobility within Alberta? How does your program align with a similar program area in BC to support student mobility within Alberta/BC and Canada?* **NAIT** - Request from management to complete documentation on transfer agreements and dual credit strategies. Information is posted by program on website. NAIT has program specific opportunities in BC. **University of Lethbridge** - Already have 3 articulation agreements within BC. Case-by-case basis for student mobility. **Augustana** - Easier to deal with student mobility on a case-by-case basis. Registrar deals with transfers and will evaluate the course outlines. **Grant MacEwan** - Some students will go through the entire articulation process, while others are only dealing with course outlines. Not seeing too many students coming from BC. **University of Alberta** - No specialized strategies to ease the transfers. Students are looked on a case-by-case basis. **Mount Royal University** - Receiving positive feedback with sending students on a transfer to other institutes. Finding that international students with overseas studies have insufficient information in course syllabus. Students are looked at on a case-by-case basis. **University of Calgary** - Numbers are not high enough from a particular institution to have specialized agreements. **Kings University**	

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- Finding that agreements are working well, and mobility between institutions is helping with students who have somewhere specific in mind. More students are finding opportunities for movement. **Medicine Hat College** - Dealing with individual applications, finding mostly international not within Alberta. Also looking at Advanced Credit where deserved. **Athabasca University** - Mostly working with students transferring out of institute. Finding that it is more work than worth to create transfer agreements with BC. Using collaborative agreements, and success with 3 plus 1. Students have little difficulty transferring to University of Victoria on a course-by-course basis. Finding more difficulty transferring students within Alberta than BC. Having problems with International students – transfer credits are not generally given until students can prove themselves. **SAIT** - International Office deals with student transferability with International students. Finding that transfer agreements are important for sending students to other institutes. SAIT has a department and specific staff that deals with transfer options and all agreements.	
18.	*Articulation Committee Question(s) for ACAT - Possibility of development of province-wide 'Open Studies' to help complete Degree or After Degree for students wanting to build their skills. - Can more information be added to the Alberta Education website to better explain the transfer process. Should better explain the requirements, basic information and improved messaging on transferability. - Are there province-wide agreements for limitations on certificate programs? Is there a common recognition for what a certificate means? Some institutes have specific requirements for a certificate, however overlap is unclear.	
19.	*Identification of Next Meeting Date and Location and Potential New Agenda Items Location: Mount Royal Date: May 15th, 2015 – 11:30am-4:30pm New agenda items: Movement towards online courses/blended courses	

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	SharePoint alerts can be set up with your calendar.	
20.	*Adjournment and Plans for Confirming and Sharing Minutes and Institutional Updates on ACAT SharePoint Site - Document library on SharePoint will contain institutional updates and meeting minutes. This information can be accessed, revised and corrected by all members.	
21.	Additional Agenda Items/Other Business Concerns with students purchasing online services to request information and completion of program exercises etc. What are institutes doing about this, what more can be done? - One site found (rentacoder.com) finding freelancers who will complete course materials for low prices. Some instructors are taking it upon themselves to check these websites for familiar assignments etc. Institutes can contact websites asking content to be removed. - How to pursue repercussions – should students be suspended? Instructors are allowed to perform oral reports. Students need to be able to demonstrate knowledge through an 'on-the-spot' exam (no internet access), no marks need to be involved. Marking students by having them demonstrate their skills. - Instructors can use "MOSS" (software to identify similar segments of code) to search through the highest rated findings. - Cost/benefit for dealing with these kinds of problems. Instructors can use a signed contract with the student on each assignment handed in for original work.	