

MEETING MINUTES

**BRITISH COLUMBIA DRAFTING TECHNOLOGIES ARTICULATION
COMMITTEE (BCDTAC) ANNUAL MEETING**

June 26th, 2019 – 9:00 am to 3:30 pm

Brighton College – Surrey Campus

Suite 217 - 9801 King George Hwy, Surrey, B.C.

In Attendance

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| Walter Prescott | Thompson River University (TRU) |
| Mindy Marshall | Thompson River University (TRU) |
| Ross Lyle | Camosun College |
| Daryl Massey | Kwantlen Polytechnic University (KPU) |
| Michael Whitmore | Kwantlen Polytechnic University (KPU) |
| Kelly Wightman | Vancouver Community College (VCC) |
| Ron Palma | Vancouver Community College (VCC) |
| Anna Trajkovic | British Columbia Institute of Technology (BCIT) |
| Fiona McQuarrie | BC Council and Administrations Transfer (BCCAT) |
| Amanda Cabrera | Brighton College |
| Edward Cheung | Brighton College |
| Jaky Brar | Brighton College |

Welcome and Introduction

The Meeting was called to order by WP at 9:08 am, followed by attendee participant introductions.

Approval of Agenda

The Agenda was reviewed and approved.

Approval of Previous Meeting Minutes

After the review, the Meeting Minutes from 2018 were approved with an amendment to note that Brighton College uses blended learning in their Green Building Program while all other programs are delivered in classroom lecture/ lab format.

Review of the Inter-Institutional Articulation Process

DM led the discussion on this topic.

Purpose of Articulation:

- Student impact
- Ease and ability to achieve credit for work completed easily
- Credit transfers to different institutions that are provincially mandatory
- Things change such as new technology delivery methods
- As courses change, review and updating existing articulation is part of the process change
 - a. Does this affect existing/new transfer credit?
- Every institution has BCCAT
- If courses are changed, how should we update the information in the articulation system?

Where and how does this process take place?

- When preparing for course changes/ curriculum updates
- It happens between institutions
- An agreement is more likely than less likely
- Provincially mandatory
- Expectation of articulation meeting
- Consider all institutions when changes are being made in programs
- RL will talk to people to have articulation as one of the boxes to check when making changes to courses
- Notify Articulation partners
- WP – we should initiate articulation and be more proactive as change happens, articulate the change
- MM - piece-meal, we have tiny changes. Agreements should be designed to have an easier process to get into the system.
- Changes that are important should be loaded onto the BCCAT site
- Several block agreements were created and should be promoted

- Stable platform agreements were formed
- RL - block transfers are different, but we try to form something that is the same. Having a course that is 80% equivalent to a different institution might be more reasonable as the student will still be successful at your Institution if he or she transfers to your Institution.
- Changes often sit unattended at the registrar's office
- Review of changes is a long process
- The Old agreement stays in place; the new supersedes the old agreement
- BCCAT Site – students can view the updated changes
- Students can input all their courses to see what they get credit for
- Often, they pick an Educational Institution based on Transfer Credits
- Review every couple of years
- Need an instigator to say “this gets approved”
- It will take some effort
- If it's not a check box on changing courses than TCC is not going to get done
- There might be a few changes, what is the draft process
- The goal is really to come to a place where it can be “good for a while”
- We must speak to our articulation partners outside of annual BCDTAC meeting
- If course number changes, make sure the information is updated in the overall system
- The changes we make need to be made known to each other
- RL - in addition to articulation, talking to each other helps share good ideas

Institutional Reports – See Appendix A (attached)

BCIT: AT - Architectural and Structural CADD and Graphics Technician have either an Architectural or Structural option. The students have an option of either completing a 1-year certificate program or a 2-year diploma. The 1-year certificate program takes in 42 students every year. All programs such as AutoCAD, Revit, and Sketch Up are taught.

They are currently reviewing the structural option with the idea of expanding the associative certificate of Structural Design where this is a shorter wait list for students, the Architectural program has a 2-year waitlist.

40% of their courses remain unchanged, however the more advanced courses are being changed to meet industry needs.

At the end of the program, students complete a 2-week practicum, where most students are offered jobs. The job placement of the students completing their programs is 100%.

42 students, 1-year certificate program AutoCAD, Revit, sketch up skill based

Camosun College: RL

AutoCAD Technician Program

1 change to the engineering drawing course, took AutoCAD for 1 hour and SolidWorks for 1 hour

Engineer Technician Program – 2 semesters

1st semester – Foundation

2nd Semester – 7 weeks in class, 7 weeks practicum

Use AutoCAD, SolidWorks, 3D Max, Revit, Adobe Photo Shop, engineered drawings that go on to prototypes and builds

Run program annually,

Was quarterly based now semester base Jan. -may/Jun. practicum July/Aug

KPU: DM

Multiple programs

- 3 intakes during the year, with 70-80 new students per year

- Undergraduate exit credentials at:

1 semester – Citation

2 semesters (with a specialty in either Struc. Arch., or Mech) – Certificate

4 semesters – Diploma

4 semesters with Coop – Diploma with Coop

Course updates – language updates ongoing

VR has been introduced recently as change to workflow

Ability to visualize the components of the building

Similar to see the building components in a real site

It costs a lot to setup the equipment and train facility

Once the students apply the virtual reality, they make their own changes

Gamers – laptops under \$2k

NIC – discontinued 6 years ago

Brighton: EC

8 diploma programs, 4 certificates

1. Construction and Drafting Technician
2. Construction Project Management
3. Construction Operation and Supervision
4. Green building and Sustainable Design
5. Architecture Design Technician
6. AutoCAD Drafting and Design Specialist
7. Structural and Building Technology
8. Civil Infrastructure Design Technician

Major Software: AutoCAD, Revit, 3D Max, Sketch up, Microsoft project, Civil 3D, Autodesk Inventor

Solid Work Certificate program is still waiting for approval

AutoCAD Program

Practicum – 100% placement

We have new Green Building program approval – adopting new changes (Step Code)

KPU articulation in progress – would like to articulate with more institutions

UFV: Not present

TRU: WP

Program review

MM - Articulation

Students are either good or not good at mathematics and statistics

Major software: Sketch up, Photoshop, carrier Half, Revit structure mechanical

Virtual reality is part of the program

Degree program leading to Master of Architecture

Have moved to a new building and laboratory facility

Enrollment rates are good, but attrition a problem still

VCC: KW

3 Certificate Programs

1. Architectural
2. Structural
3. Mechanical

Diploma program – Currently have evening classes and will have day classes starting September

Citations 14 weeks full time, 28 weeks part time

Enrollment is good, 60-70 students

AutoCAD, Revit, tech, Infa works, Civil 3D, 3D Max, Blue Beam marking, Moodle, Blended in classroom

New Collaboration space, set up virtual reality

Mechanical Program

Job Placement – start getting calls in January for new hires

RP – Long geometry and math courses

Use PDF Drop box

Moodle – blooming for construction

Use peer marking system

Paperless – PDF file reader and editor

BCCAT Update

Dr Fiona McQuarrie,

- Special Projects Coordinator at BCCAT and a Professor in the School of Business at UFV
- BCCAT is celebrating their 30th anniversary
- There are approximately 66 Articulation Committee meetings across BC; she and her colleague are aiming to attend as many as possible
- The BC Transfer System is a role model for other jurisdictions and the rest of the world
- Education Planning BC is now being run by a non-profit entity
- New Transfer Innovation Projects: Adult Basic Education Steering Committee, Review of EL (English Language) Proficiency Standards (i.e. IELTS, TOEFL, used in admissions processes) There is some debate as to whether these tests are even a good assessment of a student's academic English level

- The Transfer Innovation Fund is being suspended for 2019/2020
- Researching dual credit (not IB or AP) students to see how they're doing academically
- They are finding that the oral language is not at the written language test.

Review of Current Inter-Institutional Articulation Activity / Transfer Grid

- Review of Current Inter-Institutional articulation activity
- Changes to Course Curriculum affecting articulation

Changes in Courses:

Transfer credit contact because they have BCCAT website or ask registrar at your school.

Action for this year: Brighton College is in articulating process with KPU

Action Plan:

- examine format of our Institutional Reports to focus on course and program changes
- KPU has met with West Vancouver High School teachers
- Grade 9 – Journaling – what am I, where did I go?
- Admissions excellency

Proposed New Institutional Update Form

1. Program & Options
2. Course structure
 - Delivery
 - Coop & practicum
 - Undergrad or vocational
 - Credential outcomes
 - accreditation
3. Software Used
4. Articulation related activity complete with relevant dates. / Course or Program Changes
 - a) Completed

- b) In Process
- c) Anticipated

5. New and Cool

DM to draft changes and circulate for comment

Sharing Session / Current Affairs

- **International Students**

KPU – limits and requirements, a lot of international students are from China and India, Politics, Laws and Regulations play a part in student intake

AT – 30% of funding comes from WorkSafe BC

KW – Most of the international students are in Hospitality and Spa, there are 3 international students out of the 18 students per class in drafting

MM – Don't really have many international students.

RL - Where can international students find work?

DM – International Agents will fill out applications to recruit students for colleges, sometimes the students have no clue to what program they are in. So now an orientation video is sent to international students and domestic students. Program Chair can see if the video has been watched or not.

WP: Asks which colleges allow the students to register themselves into the courses – Camosun, KPU. DM now asks to see the admissions list before classes begin to make sure the students are registered in the right course for their program.

1st Semester – 20 seats are filled with the full-time students.

Cohort program must register all 4 courses at the one time.

MW – chair – co-chair.

MM: parents will call to register their kids in classes or try to communicate directly with Instructors

Future of CAD Technology:

DM - Technology keeps changing, how do you see the workplace changing?

BIM, VR, AR, etc.

Reflect on programs, hybrid manufacturing

RL - prepare students for CAD technology

MM – use Revit MEP for HVAC and Plumbing

DM - Roof drawing in Revit; it is very difficult to achieve high level modeling details in Revit so ACAD remains relevant

MM – Students need more knowledge to achieve high level building details

DM - material components are also important

RP - review structural steel details and use Bluebeam

KW – BIM programs are getting more popular

MW – more demand for good BIM managers

KW - there is still a lot to do to get the BIM programs integrated

DM - we are expected to teach more, industry is asking for more, how do we pack in more information, and how do our students retain all the information we lecture

MW - is not sold on video; they are only using the information to complete a task

WP - first time students show some level of understanding; textbooks are out of date

AT- Foundation plan, they will be applying

MW – sketch a house, have the assimilating the information that you have delivered.

AC - Online lectures need to have regular checkpoints to ensure students have watched and understood.

DM - YouTube and apps change the way people learn, why are they going there, how they are accustomed to learning, visually dynamic and engaging, one tool with multiple benefits, how do the outcomes change. Technology will be a great aid to teaching students, while they are on the bus or otherwise sitting somewhere. Some students will hear or read the information for the class prior to attending lectures

MM - students look up the information but don't retain it, and they are not selective with their resources

DM - Will tell his students expectations of a test or project. For example: you need to be prepared to show me all the components if a complete drawing set.

MW - assimilate easier

DM - Flat roof, how the roof was engineered and also mechanical details. Industry demands more high level modeling

EC - future of CAD programs, Civil 3D link real industry standard code MMCD to create drawing details and hope that Revit can link building code in the future. Incorporate the actual codes into the programs.

DM - every municipality is different so we can't effectively integrate specific codes and By-laws in every discipline

KW – Civil 3D link MMCD for roads and highway jobs

MM – codes are very vague

DM - so many different aspects to the code

WP- now you can use different ways to meet the building codes (outcome as compared to prescription)

Nominations for New Chair / Co-Chair

Walter is stepping down; Daryl is the new Chair by acclamation

Selection of date and location of next meeting

Date: June 24, 2020, Location: VCC Downtown Campus.

Action Items:

1. Daryl will circulate proposed new Institutional Update form
2. All institutions committed to make at least one move forward in articulation progress each year

Meeting adjourned at 3:04 pm.

BCDTAC – Institution Updates for June 2019 Meeting

(Please fill in and email to daryl.massey@kpu.ca or give to the minute-taker at the meeting)

Institution Name: Thompson Rivers University

Name of Program: Architectural and Engineering Technology

Department Chair/Head: Walter Prescott and Dale Parkes

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| Program and Options offered: | <ul style="list-style-type: none"> • The Architectural and Engineering Technology (ARET) program incorporates a prescribed course format and does not offer options or course discipline streams. |
| Number of semesters and/or contact hours: | <ul style="list-style-type: none"> • Six – thirteen week semesters. The program contact time totals to 2085 hours over three years and breaks down to 1275 hours of lecture, 332 hours of seminar, 379 hours of lab, and 99 hours of exams. |
| Entrance Requirements: | <ul style="list-style-type: none"> • BC Grade 12 or equivalent • Foundations of MATH 12 or Pre-Calculus 11 or equivalent with 67 percent or higher • BC Physics 11 or Physics 0500 or equivalent (see note below) • English 12 with a 73 percent on the combined English 12 and Government Exam or English 12 First Peoples with 73 percent or higher <p>Note: Students need a strong background in physics and math. Those applicants whose math and physics requirements are more than five years old and other applicants whose math and physics skills are weak should consider "refresher" courses in these subjects prior to applying for the ARET program.</p> <p>Note: It is expected that students will arrive with basic computer literacy skills such as file management, basic word processing, etc.</p> |
| Total number of students in the program: | <ul style="list-style-type: none"> • Stable intake of 40 students with no waitlist for Fall 2019 which we attribute to the lack of the Bachelor of Building Science. International admissions is at about 6 students for 2019. • Total program enrollment for 2019/20 will be 80 students |
| Software used: | <ul style="list-style-type: none"> • Core (taught in the labs): <ul style="list-style-type: none"> ○ AutoDesk (latest version): AutoCAD, Revit, Civil3D • Optional (introduced in labs): <ul style="list-style-type: none"> ○ Microsoft Office suite ○ Sketchup ○ Photoshop • New for 2019/2020: <ul style="list-style-type: none"> ○ Carrier HAP – Building load calculation software • Future: <ul style="list-style-type: none"> ○ NavisWorks ○ Revit Structures ○ Revit MEP |

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| Changes since last year: | <ul style="list-style-type: none"> • No major changes in the ARET course content. • The department has completed the internal university program review as well as an accreditation site visit. • The Bachelor of Building Science (BBS) degree has been put on hold indefinitely. • A Bachelor of General Studies is now being offered as an alternate. • The ARET Program has been relocated to the Trades and Technology Building until the new STEM building has been completed in 5-10 years. • This move has provided the ARET Program an additional computer lab, larger 3D printing facility, and larger classrooms. |
| Greatest accomplishment of 2018/2019: | <ul style="list-style-type: none"> • Completing the internal university review and accreditation review. • Updated learning outcomes for the program. • Co-op program will start summer 2020. |
| Future plans for upcoming year: | <ul style="list-style-type: none"> • Waiting for funding approval for the development of fourth year courses to be incorporated in the Bachelor of General Studies degree to provide a major in Building Science. These new courses will be delivered by the ARET program faculty. With the added lab and larger classrooms, enrollment growth is expected to increase to 60 students within the next 5 years. |
| Additional Comments: | <ul style="list-style-type: none"> • In 2019 promotions have been stepped up to incorporate all school districts in British Columbia with initial contact being made in select Washington State school districts. The promotions material has been completely reworked. |

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| Plans for upcoming year: | <ul style="list-style-type: none">• Expand online course offerings and “for-credit” CPS courses• Expand on options available to students through flexible credentialing, in particular, those who are planning a degree pathway |
| Additional Comments: | <ul style="list-style-type: none">• |

BCDTAC – Institution Updates for June 2019 Meeting

(Please fill in and email to daryl.massey@kpu.ca or give to the minute-taker at the meeting)

Institution Name: Vancouver Community

College _____

Name of Program(s): Architectural Technician

Certificate _____

Department Chair/Head: Bruce McGarvie

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| Program and Options offered: | <ul style="list-style-type: none">• Upon successful completion may continue to Diploma for Accreditation |
| Number of semesters and/or contact hours: | <ul style="list-style-type: none">• 3 semesters• 10 months comprised of 1200 hours |
| Entrance Requirements: | <ul style="list-style-type: none">• • Grade 12 graduation or equivalent is required. • Apprenticeship and Workplace Math 11 • Applicants whose first language is other than English, who have not completed English 098/099 and are presenting foreign documents equivalent to Grade 12, must successfully complete and English language assessment that includes a Canadian Language Benchmark of Listening 8, Speaking 7, Reading 8 and Writing 7 or better. Applicants who have met all the above requirements and have completed Drafting 11 and 12 in high school can apply for direct entry into Level 2 of the program. |
| Total number of students in the program: | <ul style="list-style-type: none">• 18 |
| Software used: | <ul style="list-style-type: none">• AutoCAD• Revit• Inventor• Sketchup |
| Changes since last year: | <ul style="list-style-type: none">• Commercial portion, 3rd semester, Revit is used for all projects• Incorporated more Moodle |
| Greatest accomplishment of 2017 \ 2018: | <ul style="list-style-type: none">• Added 2nd Revit project, now using inventor instead of 3D AutoCAD• Added Moodle into 1/3 of the program |

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| Plans for upcoming year: | <ul style="list-style-type: none">• Increase the use of Moodle• Considering to use Formit instead of Sketchup |
| Additional Comments: | <ul style="list-style-type: none">• None |

BCDTAC – Institution Updates for June 2019 Meeting

(Please fill in and email to daryl.massey@kpu.ca or give to the minute-taker at the meeting)

Institution Name: Brighton College

Name of Program(s): AutoCAD Drafting and Design Specialist

Department Chair/Head: Edward Cheung

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| Program and Options offered: | AutoCAD Drafting and Design Specialist 35 Week Diploma, 4 Week Practicum Included |
| Number of semesters and/or contact hours: | 35 Week Diploma, 4 Week Practicum Included 620 Study hours 150 Practicum Hours |
| Entrance Requirements: | <ul style="list-style-type: none"> ✓ High school diploma (or equivalent) or mature student status ✓ Domestic: Grade 10 English or pass College English assessment International student: IELTS 6.0 proof (or equivalent) or pass College English assessment |
| Total number of students in the program: | 22 |
| Software used: | <ul style="list-style-type: none"> • AutoCAD • Civil 3D • Inventor • Revit • 3D Studio Max |
| Changes since last year: | <ul style="list-style-type: none"> • Revit – We have incorporated more Mechanical building services (plumbing and HVAC modeling techniques) and basic Steel structure modeling into the course. • Civil 3D – We have incorporated more road design techniques (k-value for vertical curve and Corridor Drive capability) into the course. |
| Greatest accomplishment of 2017 \ 2018: | <ul style="list-style-type: none"> • Excellent practicum placement • High employment rate • CTAB accreditation (Civil Infrastructure Design Technician program) • New SolidWorks Certificate • Draft Articulation Agreement with KPU |

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| Plans for upcoming year: | <ul style="list-style-type: none">• Developing a new Degree Program – Bachelor of Science in Construction Management |
| Additional Comments: | <ul style="list-style-type: none">• |

BCDTAC – Institution Updates for June 2019 Meeting

(Please fill in and email to daryl.massey@kpu.ca or give to the minute-taker at the meeting)

Institution Name: *University of the Fraser Valley*

Name of Program(s): *Architectural Drafting*

Department Chair/Head: *Randy Kelley*

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| Program and Options offered: | <ul style="list-style-type: none">• <i>Certificate</i> |
| Number of semesters and/or contact hours: | <ul style="list-style-type: none">• <i>Intensive (no semesters), 1400 hours</i> |
| Entrance Requirements: | <ul style="list-style-type: none">• <i>Foundations or Principles of Math 11, or Precalc 11 with C+ grade; English 12 with C grade</i> |
| Total number of students in the program: | <ul style="list-style-type: none">• <i>Maximum 20</i> |
| Software used: | <ul style="list-style-type: none">• <i>MS Office; SketchUp, AutoCAD, Revit</i> |
| Changes since last year: | <ul style="list-style-type: none">• <i>Minor content updates and continued creating of digital content. Looking at conversion to online content delivery of course materials</i> |
| Greatest accomplishment of 2017 \ 2018: | <ul style="list-style-type: none">• <i>Student from course won provincial SkillsCanada event and won bronze at the national competition in Halifax.</i> |
| Plans for upcoming year: | <ul style="list-style-type: none">• <i>Continued edits to the course as I complete the PIDP based on what I'm learning in the program. We have not yet implemented changes based on our external review.</i> |
| Additional Comments: | <ul style="list-style-type: none">• <i>The UFV Architectural Drafting program continues to be a popular choice for UFV students and has a 3-year wait list.</i> |