

Draft Minutes

British Columbia Drafting Technologies Articulation Committee

Annual Meeting

Held Wednesday, June 21st 2017

At **KPU** – Cloverdale Campus

5500 180th St. Surrey, BC

Main Boardroom, Room 1853

In Attendance

Ross Lyle, Chair	Camosun College (CC)
Walter Prescott, Co-Chair	Thompson Rivers University (TRU)
Robert Adamoski	BC Council on Admissions & Transfer (BCCAT)
Daryl Massey	Kwantlen Polytechnic University (KPU)
Richard Dyck	Kwantlen Polytechnic University (KPU)
Christina Heinrick	Kwantlen Polytechnic University (KPU)
Joanne Massey	Kwantlen Polytechnic University (KPU) (<i>part time attendee</i>)
Michael Whitmore	Kwantlen Polytechnic University (KPU) (<i>part time attendee</i>)
Maurice Della-Savia	Vancouver Community College (VCC)
Bruce McGarvie	Vancouver Community College (VCC)

Regrets

Michael Currie	British Columbia Institute Of Technologies (BCIT)
Anna Trajkovic	British Columbia Institute Of Technologies (BCIT)
Wayne Hand	British Columbia Institute Of Technologies (BCIT)
Doug Meier	Okanagan College (OC)
Reg Marte	Okanagan College (OC)
ken Langedyk	Okanagan College (OC)
Wes Macaulay	University Fraser Valley (UFV)
Graham Huckin	Vancouver Community College (VCC)

Welcome and Introductions

Ross Lyle called the meeting to order at 9:10 am.

Attendees introduced themselves.

Approval of Agenda

The planned agenda was approved with the addition of a short Augmented Reality teaching tool presentation by CH.

Approval of Previous Meeting Minutes

The minutes of the 2016 BCDTAC meeting were approved pending two spelling changes.

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Review of BCDTAC Mandate

RL reviewed the BCDTAC mandate and identified the large copy of the Articulation flow chart prepared at last year's meeting. Also included in today's meeting package was a copy of the BCCAT Request Queue (which shows pending articulation requests for KPU drafting courses with TRU, UFC and VCC.) RA described the formal request process where courses are put out for receiving institutions to review. Courses can be considered equivalent when they have an 80% content overlap.

Review of BCDTAC Committee Membership List (See Appendix A)

Since Tricia Thomson has retired from UFV, John Sprung has retired from KPU and Graham Huckin will be retiring from VCC this December, they will be removed from the Committee list. Mindy Marshall and Dale Parkes from TRU and Kelly Wightman from VCC will be added to the list. (Refer to Appendix A for the updated Committee list)

Institutional Reports (See Appendix B)

Written reports from BCIT and Okanagan College were presented. Written and verbal reports were provided by CC and TRU. Verbal reports were provided by CC and TRU (to be followed up with written reports).

- BCIT – Ross presented AT's report on the Architectural and Structural CADD & Graphics Technician program and MC's report on the Architectural and Building Technology program. Committee members wanted more details on the "major change" in the latter's program credits and program map in the past month. *RL to contact Michael Currie for more information.*
- CC – RL reported on the new semesterized EGT program and Mechanical Engineering Technology programs.
- KPU - DM reported on KPU's programs.
- OC – RL presented RM's report on the Mechanical Engineering Technology program.
- TRU – WP reported on TRU's programs.
- VCC – BM reported on VCC's programs with contributions from MDS

Review of Last Year's Transfer Diagram

RL described the diagram as representing the potential pathways between institutions. Dotted lines showed potential pathways while solid lines showed existing or likely formal arrangements. Ross said that last year's committee agreed that some transfers, because of their infrequent nature, would best be handled on a case by case basis. The Transfer diagram developed at last year's meeting was later reviewed for clarity. See Transfer Grid Review section below.

BCCAT Report

After a short refreshment break, RA presented a report on behalf of BCCAT. Rob reviewed the BCCAT Update for Spring 2017, noting that copies of the quarterly document can be downloaded from the BCCAT website. Rob noted several items that he felt were pertinent to the committee.

- Council Awards are given to individuals nominated for their contribution to the Articulation process. BCCAT invites nominations.
- Work is ongoing for an Engineering first year common core. A report is available at bccat.ca/pubs/engineering-final-report-v121.

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- A lot of effort by BCCAT has gone into making the EducationPlannerBC.ca the main portal for students to be able to search, find and apply for post-secondary programs in BC. All Committee members - ***Please go to the site and check that your programs are accurately portrayed.***
- K-12 curriculum changes are being implemented. Intended to provide teachers and students with more flexibility in content to promote synthesizing and analyzing skills, there is concern that students may come into post-secondary programs missing appropriate pre-requisites. Check out curriculum.gov.bc.ca for a side-by-side comparison table of old and new Math and Science 10-12 curriculum.
- Rob pointed out a research document on prepared by Camosun College exploring dual credit student transition and post-secondary success. Copies were made available.
- Lastly, Rob presented a dynamic web-based visual diagram that shows the flow of students, over the past 5 years, from one institution to another who are transferring CAD related courses. While showing all transferring relationships, the software is capable of showing and providing details on student transfers between isolated institutions. Rob agreed to provide a hard-copy of the diagram (see Appendix C).

Action Item

Seeing the strong flow between Institutions offering drafting programs and BCIT, for next year's meeting, ***BCIT will be invited to send a representative from their Building Construction Management program.***

Action Item

Transfer Grid Review (Appendix D)

The committee reviewed each institution's pathways, discussed basic course transfers, block transfers as well as transfers requiring laddering/bridge courses.

Additional articulation pathways were identified and added to the diagram. These included:

- VCC's Architectural Technician and BCIT's Architectural CADD and Graphics Technician programs,
- VCC's Architectural Technician and UFV's Architectural Drafting Technician,
- VCC's new CAD and BIM Technician program and TRU's Architectural & Engineering Technology program.
- TRU's Architectural & Engineering Technology program and BCIT's Building Construction Management program.
- KPU's Diploma in Computer Aided Design and Drafting program and BCIT's Building Construction Management program (with bridge/elective courses).
- CC's Engineering Graphics Technician program and VCC's Architectural Technician program.
- CC's Engineering Graphics Technician program and TRU's Architectural & Engineering Technology program.
- CC and KPU agreed to review the existing block transfer agreement for the CC's Engineering Graphics Technician program.

Refer to Appendix D for the updated Articulation flow diagram.

The committee decided to concentrate on the following articulation pathways over the next year:

- VCC's Architectural Technician and UFV's Architectural Drafting Technician,
- VCC's Architectural Technician and TRU's Architectural & Engineering Technology (with bridge/elective courses).
- VCC's new CAD and BIM Technician program and TRU's Architectural & Engineering Technology program (with bridge/elective courses).

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- UFV's Architectural Drafting Technician program and KPU's Diploma in Computer Aided Design and Drafting program, and
- KPU's Diploma in Computer Aided Design and Drafting program and TRU's Architectural & Engineering Technology programs (with bridge/elective courses).
- CC's Engineering Graphics Technician program and KPU's Diploma in Computer Aided Design and Drafting program.

Each institution will review existing Block Transfer agreements to ensure relevance and that they are up-to-date with each program's changes. ***Each institution will send Ross their intentions for articulation process and updates to be worked on through the 2017-2018 academic year.***

Action Item

Sharing Session

3D Printing

- 3D printing is finding more applications. Used for creating parts for building models and for creating mechanical parts. RL said that with a contribution of funds from Babcock Canada, a 9-station 3D Printing Farm is being set up at Camosun. Initial student response and printer reliability has been very good.

Grad Employment Opportunities

- VCC – Steel detailing has dropped off a bit, Civil Engineering steady, architecturally, think that it's picked up. Grad employment at 100%
- KPU – Grads finding work. Smaller companies doing better – where most grads are going. Larger companies less so. Students not always finding work in their chosen area, however skills are transferrable across disciplines.
- TRU – everyone is getting work. If students look for work, they will find it.
- It was noted that larger firms are contracting out to others for drawings.

Program Advisory Committees and Employer expectations

- Transferrable skills. PAC's pleased with students. Are expecting students to be able to do more. Move to get Architects and Engineers to do more drawings.
- BIM software creating more collaborative opportunities between disciplines. Use one building model to cover off energy, structural, mechanical needs.

Remaining Current

- Challenge for students and instructors is that the software goes out of date. Students need to understand that they will need to upgrade their skills every two years or so. (What they learn today will be out of date when they graduate!) CH recommended that students be shown the short movie "Shift Happens".

Student Debt

- The observation was shared that students graduate with huge debt loads.

Changes in 5 years

- Retiring boomers should mean that there are opportunities for graduates.
- There will be more of a focus on renewables and sustainability
- Teaching students to be better collaborators
- Expectations of student's skills will increase. Essential outcomes include:

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- Adaptable
- Flexible
- Problem solving
- Critical thinking

Teaching in 5 years

- More online delivery methods using tools such as Moodle. Use of cloud services such as Google Drive, iCloud and Access 360 (Autodesk)
- Shift away from paper-based assignments to digital formats. Students will need to be familiar with both formats. Instructors felt that marking paper assignments still easier than digital formats.
- Discussion about the use of exams. Noted that most drawing courses are more heavily weighted to final projects than final exams.
- More blended classrooms, combining face-to-face and on-line resources.
- More use of flipping the classroom (learn in advance – apply in class).

Augmented Reality demonstration

- CH demonstrated an augmented reality application that allows to see a virtual 3D representation of a 2D drawing using a camera equipped computer. The fully moveable virtual model can be viewed from any direction, allowing students to better understand the 2D paper representation of the part or assembly. Christina will send details on how to obtain and use the [Aumentaty](#) software.

Selection of new BCDTAC Chair

After 5 years in the role of BCDTAC Chair and pending retirement, Ross Lyle is stepping down. By Acclamation Walter Prescott (TRU) was selected as BCDTAC Chair and Daryl Massey (KPU) as BCDTAC Co-Chair.

Next Meeting

Next Year's meeting has been set for June 20th, 2018 at TRU with the suggestion that it be held at UFV for greater accessibility by committee members. **Walter will confirm with Wes Macaulay.** The meeting adjourned at about 3:00 pm.

Action Item

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APPENDECIES

Appendix A – Updated BCDTAC Invited Members List

Appendix B – Institutional Reports

- BCIT – Architectural and Structural CADD & Graphics Technician program
- BCIT – Architectural and Building Technology Diploma program
- CC – Engineering Graphics Technician program
- CC – Mechanical Engineering Technology program
- KPU - CADD Citation - CADD Core, CADD Certificate – Architectural, Structural or Mechanical and CADD Diploma – Advanced CADD programs
- OC – Mechanical Engineering Technology
- TRU – Architectural and Engineering Technology program
- VCC – CAD Drafting Citation, Architectural Technician Certificate, Civil/Structural Technician Certificate, Steel Detailing Certificate and CAD & BIM Technician Diploma programs

Appendix C – BCCAT Update for Spring 2017

Appendix D – BCCAT Diagram showing course transfer flow between BC institutions

Appendix E – Updated Articulation Flow Diagram

Appendix A – Updated BCDTAC Invited Members List

Name	School	Email List
Ruth Erskine	Representing BCCAT	rerskine@bccat.ca
Robert Adamoski	BC Council on Admissions & Transfer	radamoski@bccat.ca
Anna Trajkovic	British Columbia Institute of Technology	Anna_Trajkovic@bcit.ca
Michael Currie	British Columbia Institute of Technology	Michael_Currie@bcit.ca
Wayne Hand	British Columbia Institute of Technology	Wayne_Hand@bcit.ca
Ross Lyle	Camosun College	lyle@camosun.ca
Christina Heinrick	Kwantlen Polytechnic University	christina.heinrick@kwantlen.ca
Daryl Massey	Kwantlen Polytechnic University	Daryl.Massey@kwantlen.ca
Joanne Massey	Kwantlen Polytechnic University	Joanne.Massey@kwantlen.ca
Richard Dyck	Kwantlen Polytechnic University	richard.dyck@kpu.ca
Michael Whitmore	Kwantlen Polytechnic University	michael.whitmore@ymail.com
Doug Meier	Okanagan College	DMeier@okanagan.bc.ca
Reg Marte	Okanagan College	RMarte@okanagan.bc.ca
ken Langedyk	Okanagan College	klangedyk@okanagan.bc.ca
Tom Guenther	Okanagan College	tguenther@okanagan.bc.ca
Walter Prescott	Thompson Rivers University	wprescott@tru.ca
Mindy Marshall	Thompson Rivers University	mmarshall@tru.ca
Dale Parkes	Thompson Rivers University	dparkes@tru.ca
Wes Macaulay	University Fraser Valley	Wes.Macaulay@ufv.ca
Bruce McGarvie	Vancouver Community College	bmcgarvie@vcc.ca
Maurice Della-Savia	Vancouver Community College	mdellasavia@vcc.ca

Appendix B – Institutional Reports

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.ca or give to the minute-taker at the meeting)

Institution Name: BCIT

Name of Program(s): Architectural and Structural CADD & Graphics Technician

Department Chair/Head: Anna Trajkovic, MSc, BSc, PID

<p>Program and Options offered:</p>	<ul style="list-style-type: none"> • ASCT program offers two options: <ul style="list-style-type: none"> • Architectural CADD & Graphics • Structural CADD & Graphics
<p>Number of semesters and/or contact hours:</p>	<ul style="list-style-type: none"> • Program has one intake, in September. It runs for 40 weeks, for a total of 1200 hours, at a rate of 30 hrs/wk.
<p>Entrance Requirements:</p>	<ul style="list-style-type: none"> • <u>English:</u> <ul style="list-style-type: none"> • English 12 (50%) or • Communications 12 (67%) or • 3.0 credits of post-secondary English, humanities or social sciences (67%) or • BCIT English Trades Pre-entry Test • <u>Math:</u> <ul style="list-style-type: none"> • Principles of Mathematics 11 (50%) or • Applications of Mathematics 11 (50%) or • Apprenticeship and Workplace Mathematics 11 (50%) or • Foundations of Mathematics 11 (50%) or • Pre-Calculus 11 (50%) or • BCIT Math Trades Pre-entry Test
<p>Total number of students in the program:</p>	<ul style="list-style-type: none"> • 40
<p>Software used:</p>	<ul style="list-style-type: none"> • AutoCAD, Revit, Tekla Structures, Civil 3D
<p>Changes since last year:</p>	<ul style="list-style-type: none"> • Incorporated file exchange capacity between different software packages, thus creating the most efficient and accurate project delivery process.
<p>Greatest accomplishment of 2016/2017:</p>	<ul style="list-style-type: none"> • We incorporated 3D printing from SketchUp in conjunction with the Media Centre at the BCIT library. This formed part of team presentations posted online. • VR visualization from SketchUp and Revit was added to the program using Google Cardboard and HTC Vive. • Student teams participated in an internal design competition at BCIT.

	<ul style="list-style-type: none">• An Architectural Drafting Exhibition was held to showcase student work to industry and BCIT faculty.
Future plans for upcoming year:	<ul style="list-style-type: none">• Expanding on BIM content delivery for added efficiency when planning, designing, and managing building and infrastructure projects.
Additional Comments:	<ul style="list-style-type: none">•

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.ca or give to the minute-taker at the meeting)

Institution Name: BCIT

Name of Program(s): Architectural and Building Technology (Diploma)

Department Chair/Head: Michael Currie

Program and Options offered:	<ul style="list-style-type: none">• 3 options (Architectural, Economics/construction Operations and Building Science)
Number of semesters and/or contact hours:	<ul style="list-style-type: none">• 2 semesters (15 weeks and 20 weeks) with average of 30 contact hours per week
Entrance Requirements:	<ul style="list-style-type: none">• Minimum C+ in English 12, Math 12 and Physics 12 (B or 72% actual requirement)
Total number of students in the program:	<ul style="list-style-type: none">• 136 student in 1st year and 120 student in 2nd year
Software used:	<ul style="list-style-type: none">• AutoCAD, Revit, MS excel, MS project, Timberline, 3D studio Max
Changes since last year:	<ul style="list-style-type: none">• Went through Major Change last month, with a reduction of total credits and revised program map for program
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none">• Major Change
Future plans for upcoming year:	<ul style="list-style-type: none">• Significant number of retirements in next couple years, succession planning
Additional Comments:	<ul style="list-style-type: none">•

BCDTAC – Institutional Updates for June 2017 Meeting
(Please fill in and give to the minute-taker at the meeting)

Institution Name: Camosun College

Name of Program(s): Engineering Graphics Technician (EGT)

Department Chair/Head: Ross Lyle

Program and Options offered:	<ul style="list-style-type: none"> Engineering Graphics Technician program (<i>Currently under review</i>)
Number of semesters and/or contact hours:	<ul style="list-style-type: none"> The program has undergone a restructuring from a quarter-based program to a semester based program. The new proposed format is a 14-week January- April academic term, a 7-week May-June academic term followed by an optional 6-week July-August work term. Contact hours average about 28 hrs/wk
Entrance Requirements:	<ul style="list-style-type: none"> “C” in English 12 (or equivalent), “C” in Pre-Calculus 11 or Principles of Math 11 (or equivalent).
Total number of students in the program:	<ul style="list-style-type: none"> We are planning for 20 and expect to have about 15 available for the work term.
Software used:	<ul style="list-style-type: none"> Microsoft Suite (Excel, Word, Power Point, Access) Adobe (Illustrator, Photoshop, Premier) Autodesk (AutoCAD, Inventor, 3dsmax, Revit) SolidWorks
Changes since last year:	<ul style="list-style-type: none"> The program has been modified to suite a semester format. The updated program adopts the Technology Drafting course and allows students to choose between a Manufacturing Processes and a Building Systems course. In addition a Workplace Preparation course is now part of the program.
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none"> The program has been modified and is being presented to EdCo (21-June-2017) with the goal of re-starting in January of 2018.
Future plans for upcoming year:	<ul style="list-style-type: none"> The plan is for the new semester-based program to run in January, 2018 and to run annually thereafter.
Additional Comments:	

BCDTAC – Institutional Updates for June 2017 Meeting
(Please fill in and give to the minute-taker at the meeting)

Institution Name: Camosun College

Name of Program(s): Mechanical Engineering Technology

Department Chair/Head: Ross Lyle

Programs and Options offered:	<ul style="list-style-type: none"> • Mechanical Engineering Technology • <i>Mechanical Engineering Technology Access program – for those without the required prerequisites.</i> • <i>Engineering Bridge program – for those with good grades who would like to continue on to an Engineering degree program through UVic, UBC or UBCO</i>
Number of semesters and/or contact hours:	<ul style="list-style-type: none"> • The Mechanical Engineering Technology program, as of September 2016, is offered over 5 x 14 week semesters. Course load averages 28 hours/week.
Entrance Requirements:	<ul style="list-style-type: none"> • Grade of "C" in English 12, or EFP 12, or TPC 12 • Grade of "C+" in Principles of Math 12, or Pre-calculus 12 • Grade of "C" in Physics 12 • Grade of "C" in Chemistry 11
Total number of students in the program:	<ul style="list-style-type: none"> • Expected first year enrollment will be about 70 in fall of 2017. We are expecting about 10 International students. Approximately 60 students are moving into the 2nd year of the program this September.
Software used:	<ul style="list-style-type: none"> • Microsoft Suite (Excel, Word, Power Point) • Autodesk (Inventor) • SolidWorks
Changes since last year:	<ul style="list-style-type: none"> • We have now fully switched from a quarter-based program to a semester-based format • We have had a significant financial contribution from Babcock Canada. With those funds we have added a manual mill, manual lathe, CNC lathe, CNC mill, six 3D printers and upgraded thermodynamics, heat transfer and materials lab equipment. We also have equipment for a 20 station high-end Computer Lab with dual monitors and workstations. We have also purchased some VR headsets. • Moved away from AutoCAD to 3D modelling. (PAC has asked us to revisit that).
Greatest accomplishments of 2015/2016:	<ul style="list-style-type: none"> • The complete conversion to a semester-based format and the move to 4-month Co-op terms. • Completing the program equipment updates under the Babcock Canada contribution.
Future plans for upcoming year:	<ul style="list-style-type: none"> • Our machine shop is starting to feel crowded. We are planning to move our shop to a vacated bay in the Jack-White building. • Creating a 3D Printing Farm by combining our 3D printing resources with Electronics resources.
Additional Comments:	<ul style="list-style-type: none"> • Moving to provide our technology students more hands-on experiences.

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.ca or give to the minute-taker at the meeting)

Institution Name: KPU Kwantlen Polytechnic University

Name of Program(s): CADD Technologies

Department Chair/Head: Daryl Massey

Program and Options offered:	CADD Citation - CADD Core CADD Certificate – Architectural, Structural or Mechanical CADD Diploma – Advanced CADD
Number of semesters and/or contact hours:	Citation is 1 semester – approx. 312 contact hours Certificate is 2 semesters – approx. 624 contact hours Diploma is 4 semesters – approx. 1014 contact hours in CADD, plus approx. 234 in other Academic courses
Entrance Requirements:	Math 11 with C+ English 12 with C
Total number of students in the program:	140 Total 3 x 20: CADD Core 3 x 20: Architectural, Structural, Mechanical 1 x 20 – 2 nd Year Diploma 16 to 18 student High School Partnership students completing Core (Sept thru Aug)
Software used:	Latest release of: AutoCAD, Revit Architecture, Tekla, SolidWorks Photoshop, SketchUp Pro, Wordpress, Civil 3D, HOT2000, MS Office suite
Changes since last year:	<ul style="list-style-type: none">• Completed Program Change to include the option of more flexible credentialing. This option will allow the creation of “Special Topics” courses and more options in the Academic Course requirements in the Diploma.• Introduced a Reserves Policy to better manage high demand Specialty and Diploma courses• Department move to the Faculty of Science and Horticulture
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none">• Completed our Program Review and development of Action Plan to identify a Strategic Plan for the next 5 years• Continued high level of Grad employment placement – close to 100% for grads seeking employment• Creation of an Aboriginal Student CADD Access program with community partners and NEC

Future plans for upcoming year:	<ul style="list-style-type: none">• Investigation of Co-op option for Diploma Students• Development of online courses and increase in Blended course offerings• Development of CE and CPS course offerings at new campus at 3 Civic Plaza
Additional Comments:	<ul style="list-style-type: none">•

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.ca or give to the minute-taker at the meeting)

Institution Name: ___Okanagan College_____

Name of Program(s): __Mechanical Engineering Technology_____

Department Chair/Head: ___Reg Marte_____

Program and Options offered:	<ul style="list-style-type: none">• Mechanical Engineering Technology• Civil Engineering Technology (Ken Langedyk Chair)
Number of semesters and/or contact hours:	<ul style="list-style-type: none">• 4 semester, average 31 contact hours per semester
Entrance Requirements:	<ul style="list-style-type: none">• PreCalc 12, English 12, Physics 11 or 12
Total number of students in the program:	<ul style="list-style-type: none">• 65
Software used:	<ul style="list-style-type: none">• AutoCAD 2017, CREO
Changes since last year:	<ul style="list-style-type: none">• None
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none">• Approval of program change in engineering graphics. Currently two of four engineering graphics courses used AutoCAD software and the other two used CREO solid modeling. Starting in the fall of 2017 the new students will take one AutoCAD course an three solid modeling courses with SOLIDWORKS
Future plans for upcoming year:	<ul style="list-style-type: none">• TAC accreditation, and will let CTAC accreditation lapse.
Additional Comments:	<ul style="list-style-type: none">•

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.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: Mindy Marshall and Dale Parkes

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 or Mature Student Status • 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 2017 which we attribute to the lack of the Bachelor of Building Science. International admissions has doubled for 2017 to 8 students. • Total program enrollment for 2017/18 will be 100 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 2017/2018: <ul style="list-style-type: none"> ○ Carrier HAP – Building load calculation software ○ ICE – Building estimating • Future: <ul style="list-style-type: none"> ○ NavisWorks ○ Revit Structures ○ Revit MEP

Changes since last year:	<ul style="list-style-type: none"> • No major changes in the ARET course content. • The department is working on and internal university program review as well as and accreditation review.
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none"> • Reworked and resubmitted the Bachelor of Building Science (BBS) degree proposal for review and approval.
Future plans for upcoming year:	<ul style="list-style-type: none"> • Hiring a Mechanical and a Civil Engineer in preparation for the BBS degree and ARET program growth from 100 to 140 student enrolment.
Additional Comments:	<ul style="list-style-type: none"> • In 2017 and 2018 promotions will be stepped up to incorporate all school districts in British Columbia and Washington State. • Over the next year the ARET program will be developing and completing articulation agreements to help with the growth of the program to a stable 140 student enrollment. • In 2018 the ARET program will be moving to new offices and classrooms. The move is being made to provide an alignment with the new proposed engineering degree program.

BCDTAC – Institution Updates for June 2017 Meeting

(Please fill in and email to lyle@camosun.ca or give to the minute-taker at the meeting)

Institution Name: Vancouver Community College

Name of Program(s): CAD & BIM Technologies (formerly Drafting)

Department Chair/Head: Bruce McGarvie

Program and Options offered:	<ul style="list-style-type: none"> • CAD Drafting Citation • Architectural Technician Certificate • Civil/Structural Technician Certificate • Steel Detailing Technician Certificate • CAD & BIM Technician Diploma
Number of semesters and/or contact hours:	<p>350 hours for Citation</p> <p>1000 hours for Certificate</p> <p>Additional 750 hours to Diploma (1750 total over 2 years)</p> <p>(based on 25 hours per week)</p>
Entrance Requirements:	<ul style="list-style-type: none"> • Grade 12 graduation • English 11 • Apprenticeship and workplace math 11
Total number of students in the program:	54 Certificate, 18 Citation plus 18 Diploma students
Software used:	<ul style="list-style-type: none"> • AutoCAD • Revit • Civil 3D • Tekla • SketchUp • Inventor
Changes since last year:	<ul style="list-style-type: none"> • First run of the 3 new Drafting Certificate programs • First run of the new CAD Drafting Citation program. • New Diploma Program through governance, will start Sept 2017 • First Alumni Reception • All PC lab's now leased, automatic upgrade every 4 years. • New Department Program Assistant
Greatest accomplishment of 2016/2017:	<ul style="list-style-type: none"> • Designing and guiding the new programs through governance. • Successful run of new programs
Future plans for upcoming year:	<p>First run of new Diploma Program – develop BIM course and Capstone.</p> <p>Add new programs with industry partnerships</p>
Additional Comments:	<p>Several new Term Instructors added to roster.</p> <p>Imminent retirement of Graham Huckin in the Steel Detailing program.</p> <p>Big shoes to fill for new regular full time instructor for in the fall/early winter.</p>

BCCAT Update

Spring 2017



TRANSFER & ARTICULATION-RELATED ACTIVITIES

BCCAT.ca/Articulation Section

The articulation section of the BCCAT website has undergone a refresh, and each committee webpage has been allocated a program area with more flexibility for graphics, publications, and links. It allows for listing meetings, contact information for Chairs, and System Liaison Persons with access to resources, such as the Articulation Companion at the bottom of the main landing page. Feedback is welcome – contact Ruth at rrerskine@bccat.ca

The Joint Annual Meeting (JAM) 2017

The 2017 JAM will be held at the Westin Wall Centre Vancouver Airport Hotel in Richmond on Friday, November 17. Further information will be posted at bccat.ca/articulation/jam

This event is by invitation to chairs, system liaison persons and institutional contacts.

Council Awards 2016

The 2016 award winners are as follows:

Alisa Webb, Associate Dean of Students, University of the Fraser Valley;

Hilary Rourke, Adult Basic Education In Studies at the University of British Columbia; and

John Dennison, Professor Emeritus, Administrative, Adult & Higher Education

at the University of British Columbia and former BCCAT Council Co-Chair (posthumously).

Nominations for this year's awards are open!

bccat.ca/system/awards



TCES/TCS

BCCAT will launch the Transfer Credit System (TCS) this spring replacing the TCES. Testing and evaluation is currently taking place with volunteer institutions.

Secondary to Post-Secondary Transitions

MOE Learning Transformation Project team members met with the PSE 'Think Tank' November 21 and with BCRA on Dec 5, 2016. The next Think Tank meeting is on April 24. On January 24, the Ministry announced curriculum implementation for grades 10-12 has been moved forward to fall 2018. Numeracy and Literacy tests are being developed.

The Pan Canadian Consortium on Admissions and Transfer (PCCAT)

The 2017 PCCAT conference will be held June 8th-9th at the Toronto Marriott Downtown Eaton Centre Hotel, Toronto. The theme is '150 Ways to Transfer: A Celebration of Pathway Initiatives and Research'. For more details, visit: pccatweb.org/pccat-2017



TRANSFER INNOVATIONS PROJECTS

Engineering First Year Common Core.

This review of current Engineering transfer options and feasibility of implementing first-year core competencies is available on the Engineering Articulation Committee webpage:

bccat.ca/pubs/engineering-final-report-v121

Tourism/Hospitality Common Core

This proposal updates and aligns core learning outcomes with the current requirements of industry and employers. It is due to be completed in June, 2017.

Community & School Support (CASS) Matrix

CASS courses are currently not found on the BC Transfer Guide. The project will update the BC Transfer Guide information and identify courses across the CASS institutions that would be eligible for course to course transfer and equivalency.

RECENT PUBLICATIONS

Impact of Secondary Education Reform on PSE

Published in November 2016, this review of secondary education reforms in different jurisdictions identifies the possible effects of K-12 changes on specific aspects of the post-secondary system in BC. bccat.ca/pubs/K12Changes.pdf

Applicant Data in Centralized Application Agencies and the Implications for BC

This study reviews how applicant data is captured and reported by centralized application systems in Canadian and international jurisdictions. It evaluates the processes employed for addressing the applicant data challenges and the implications for the BC central admission service. bccat.ca/pubs/ApplicantData_Nov2016.pdf

Dual Admissions Agreements

This report provides insight into case studies of existing dual admissions agreements in British Columbia on student motivations, experiences and outcomes.

bccat.ca/pubs/dualadmissions.pdf

What is Academic Credit?

This report reviews literature of academic credit and identifies practices of credit evaluation at BC post-secondary institutions. bccat.ca/pubs/academiccredit.pdf

Experiential Education

The study explores various definitions and identifies successful practices and challenges in BC and elsewhere.

bccat.ca/pubs/expeducation.pdf



ONGOING PROJECTS OF INTEREST

Field School Coordination Feasibility

This study is investigating options for coordination of field school opportunities across the BC Transfer System. Research will take place this spring with the final paper due in September, 2017.

Inter-Disciplinary Course & Program Transfer

This project will identify issues related to how interdisciplinary courses and programs are categorized and listed in the BC Transfer Guide. Research will be conducted over the spring and summer with the report expected in November, 2017.

Indigenous Persistence

This exploratory project investigates practices undertaken to support the persistence of indigenous students at several BC post-secondary institutions, and also surveys data needs pertaining to the persistence and mobility of indigenous students.



2016 BCCAT Transfer Award Winners, Hilary Rourke, Mrs. Dennison on behalf of her husband, John & Alisa Webb

Expanding Gender Declaration in Post-Secondary Information Systems

In partnership with the BC Registrars, this project reviews how other jurisdictions are expanding options for student gender declaration at admission and throughout their engagement with the institution. A report is expected in 2017.

Dual Credit Student Success

This project overviews the South Island Partnership – a longstanding dual credit partnership on Vancouver Island and includes a quantitative assessment of the program's impact and the success of dual credit students. A report will be released in summer of 2017.

Flexible Pre-Major Research

This project will assess the efficacy of flexible pre-majors in public post-secondary institutions and will review development, realization, and communication of FPMs within an institution. The report is due to be published in the fall.

International Credit Transfer Processes

This project will analyze the processing of international credit transfer requests in Canadian post-secondary institutions and make recommendations for collaboration.

MARKETING & COMMUNICATIONS

BCCAT "ENGAGE" Updates

In order to adhere to the anti-spam legislation, BCCAT Engage news updates are only currently sent to those contacts who subscribe and confirm their consent to receive emails. To subscribe: bccat.ca/about/communications/engage

Ad Campaign

Transit ad campaigns are now underway for BCTransferGuide.ca and EducationPlannerBC.ca highlighting the specific, distinctive features of each resource. The current campaigns will be displayed for two years on bus routes across the province, SkyTrain, and Canada Line routes. Advertising is separate for the two sites due to governance changes related to the new EducationPlannerBC.ca site.

Education and Career Fairs

Each year BCCAT staff attend education fairs in Abbotsford, Kelowna, Nanaimo, and Vancouver and visit secondary schools upon request profiling both EducationPlannerBC and the BC Transfer Guide.

Next Issue: Sept/Oct, 2017

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Appendix D – BCCAT Diagram showing course transfer flow between BC institutions

BCDTAC Articulation Diagram

Prepared June 21, 2016
 Updated June 21, 2017

