# Vancouver Community College
## EDUCATION COUNCIL
### MEETING AGENDA
January 12, 2016, 3:30 – 5:30 pm, Room 5025 BWY-A

<table>
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<tr>
<th>Item</th>
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<th>Time</th>
<th>Speaker</th>
<th>Pre-reading materials</th>
<th>Action</th>
<th>Pages</th>
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<tbody>
<tr>
<td>1.</td>
<td>Call to Order</td>
<td></td>
<td>Todd Rowlatt</td>
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<td>2.</td>
<td>Adopt Agenda</td>
<td>1 min</td>
<td>Todd Rowlatt</td>
<td>January 12, 2016 Agenda</td>
<td>Approval</td>
<td>1-2</td>
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<td>3.</td>
<td>Approve Past Minutes</td>
<td>1 min</td>
<td>Todd Rowlatt</td>
<td>December 8, 2015 Minutes</td>
<td>Approval</td>
<td>3-12</td>
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<td>4.</td>
<td>Enquiries &amp; Correspondence</td>
<td></td>
<td>None</td>
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<td>5.</td>
<td>Business Arising</td>
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<td></td>
<td>a) Integrated Planning Update</td>
<td>15 min</td>
<td>Kathryn McNaughton/ Marlene Kowalski</td>
<td>Verbal Report</td>
<td>Information</td>
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<td>b) Student Academic Awards</td>
<td>15 min</td>
<td>Nancy Nesbitt</td>
<td>Presentation Document</td>
<td>Information</td>
<td>13-45</td>
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<td>c) LINC Update</td>
<td>5 min</td>
<td>David Wells</td>
<td>Verbal Report</td>
<td>Information</td>
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<td>6.</td>
<td>Committee Reports</td>
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<td></td>
<td>a) Education Policy Committee</td>
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<td></td>
<td>i) D.1.3 Copyright</td>
<td>5 min</td>
<td>Mike Tunnah</td>
<td>Information Note, Policy, Procedures</td>
<td>Information</td>
<td>46-50</td>
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<td></td>
<td>ii) D.1.5 Use of Library Resources</td>
<td>5 min</td>
<td>Mike Tunnah</td>
<td>Information Note, Policy, Procedures</td>
<td>Information</td>
<td>51-57</td>
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<td>b) Curriculum Standing Committee</td>
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<td>i) Visually Impaired courses: VOVI 0711, 0712, 0721, 0722</td>
<td>10 min</td>
<td>Rita Dilek</td>
<td>Decision Note, Proposal, Documents</td>
<td>Decision</td>
<td>58-80</td>
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<td></td>
<td>ii) CHEM 1121 and CHEM 1223</td>
<td>5 min</td>
<td>Judith Wallace</td>
<td>Decision Note, Proposal, Documents</td>
<td>Decision</td>
<td>81-103</td>
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<td>iii) Health Care Assistant ESL Program</td>
<td>10 min</td>
<td>Judy Christie</td>
<td>Decision Note, Proposal, Documents</td>
<td>Decision</td>
<td>104-179</td>
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<td>v) New program: CAD Technician Citation</td>
<td>15 min</td>
<td>Bruce McGarvie</td>
<td>Decision Note, Proposal, Documents</td>
<td>Decision</td>
<td>408-449</td>
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<td>vi) New program: Pre-Health Sciences Certificate</td>
<td>10 min</td>
<td>Debbie Sargent</td>
<td>Decision Note, Proposal, Documents</td>
<td>Decision</td>
<td>450-526</td>
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<td>c)</td>
<td>Appeals Oversight Committee</td>
<td></td>
<td>Debbie Sargent</td>
<td>No report</td>
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<td>d)</td>
<td>Program Review and Renewal Ad Hoc Committee</td>
<td>5 min</td>
<td>Jo-Ellen Zakoor</td>
<td>Verbal Report</td>
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<td>7.</td>
<td>Chair Report</td>
<td>5 min</td>
<td>Todd Rowlatt</td>
<td>Information</td>
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<td>8.</td>
<td>EDCO Member Reports</td>
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<td>9.</td>
<td>Pending Items</td>
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<tr>
<td>a)</td>
<td>Deans and Directors Updates</td>
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<td>b)</td>
<td>Annual Planning Calendar</td>
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<td>c)</td>
<td>Annual Report</td>
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<td>d)</td>
<td>Contract Training Update</td>
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<td>10.</td>
<td>Next meeting</td>
<td></td>
<td>Todd Rowlatt</td>
<td>February 9, 2016, 3:30-5:30, Room 5025, BWY A</td>
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<td>11.</td>
<td>Adjournment</td>
<td></td>
<td>Todd Rowlatt</td>
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## Vancouver Community College
### EDUCATION COUNCIL

### MEETING MINUTES - DRAFT
December 8, 2015, 3:30-5:30 pm, Room 1228 BWY-B

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<tr>
<th>Item</th>
<th>Topic</th>
<th>Discussion</th>
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<tbody>
<tr>
<td>1.</td>
<td>Call to Order</td>
<td>The meeting was called to order at 3:34 p.m.</td>
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</table>
| 2.   | Adopt Agenda | **Motion:** Moved by Jan Weiten and seconded that the agenda be adopted.  
Item 6biv Health Care Assistant ESL removed from the agenda.  
Add Item 6bv Curriculum Committee Chair Report.  
All in favour of revised agenda. **Motion carried.** |
| 3.   | Approve Past Minutes | **Motion:** Moved by Jan Weiten and seconded that the minutes of November 10, 2015 be adopted.  
A few minor edits were discussed. Minutes will be amended.  
Committee also suggested we add wording, “...if students took grade 12 or at least three years at an English-speaking post-secondary institution...”  
Jan Weiten had a comment regarding item 6aii C.3.3 Suspension and/or Discontinuance of Programs. Committee agreed that there is a general consensus among staff and administration, and we will add a line to that effect to the November minutes.  
All in favour of revised minutes. **Motion carried.** |
| 4.   | Enquiries & Correspondence | None |
| 5.   | Business Arising  
   a) VP Academic Report | Kathryn McNaughton presented her report. The leadership team spent four hours looking at the academic side, and will meet again to discuss the operational side. These were interesting and productive meetings. |
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<td>Regarding Curriculum Development Funds, there was not enough to meet all requests, but the main foundation for their decisions was whether there was enough funding to complete the projects that were underway.</td>
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<td>D2 meetings are going really well. They are giving people the opportunity for information-sharing and training.</td>
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<td>We have two vendors for the curriculum development project. Todd Rowlatt mentioned that meetings are being held, and that most vendors have a three to six month roll-out period.</td>
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<td>We have also had meetings with Pearson to discuss the e-textbooks. It’s an opportunity for students to acquire textbooks for a lower price in schools where textbooks are expensive. Also, they can have the correct editions for the first day of class. Surveys and discussions are underway.</td>
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<td>Kathryn highlighted recent academic events such as the successful convocation and academic achievement awards.</td>
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<td>Kathryn also answered Jan Weiten’s question about transition funds from a previous meeting. We are working with AVED to get approval to transfer any remaining funds to the next academic year. We are unsure of when we will get approval, but the process is in motion.</td>
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<td>Jan Weiten asked about the SWOT analysis departments are being asked to complete. Kathryn replied that it is a part of the 3-year planning process, and allows a chance to think about what we can do as an initiative to fill those gaps, what are things we need to think about both internally and externally that might be challenges and things that we might need to be aware of.</td>
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<td>b)</td>
<td>Cancellation of Aboriginal Culinary Arts Certificate Program</td>
<td>Dennis Innes described the background of the program. The program was initiated around the time of the 2010 Olympics in Vancouver, and there was additional funding for it. It started as a Professional Cook program, with some Aboriginal content. There were a total of three cohorts. Enrolment decreased, and the decision was made to suspend intakes in 2012. The plan was to redevelop the program to make it sustainable. The Culinary Arts program is refreshing their curriculum, and is discussing how to involve Aboriginal perspectives and techniques.</td>
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<td>Todd Rowlatt asked if it would be fair to say that there was not a lot of time invested in the redevelopment of the Aboriginal Culinary Arts Program, and Dennis said yes.</td>
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<td>Mike Tunnah asked if the curriculum redevelopment for Culinary Arts has progressed enough to know whether there will be an elective in Aboriginal techniques or if it will be integrated into the overall program. Dennis replied that a decision hasn’t been made yet.</td>
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<td>Nona Coles asked if we can build a course into the culinary arts program? Dennis says it is part of the conversation.</td>
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<td>Charly Jadranin mentioned that we have an agreement with NEC about some courses. Has there been any discussion with NEC about the Culinary Arts Program? Dennis will check with Kory to see if she’s done any marketing. David Wells mentioned that Aboriginal students haven’t had as much interest in the Culinary Arts Program as they have in other programs.</td>
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<td>Elle Ting mentioned that if we are interested in marketing this program, the Lummi Nation has one that is about 6-8 weeks long, so we may be interested in checking out their website.</td>
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<td>Leah Nusgart commented that if Aboriginal cooking is an elective, it may fall through the cracks. She feels that with VCC’s commitment to encouraging Aboriginal students to take these courses, it would be important to keep this elective. Todd Rowlatt mentioned that all decisions regarding the program will eventually come through EDCO, and at that time, such matters will be considered.</td>
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<td><strong>Motion:</strong> Moved by Debbie Sargent and seconded that the Education Council recommend to the Board of Governors the cancellation of the Aboriginal Culinary Arts Certificate Program. All in favour. <strong>Motion carried.</strong></td>
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</table>
|      |                | c) Fashion Arts Diploma  
Michael Yue and Andrea Korens outlined the proposal.  
Todd Rowlatt asked how this qualifies as a new program. Andrea says that over the 30 year history, there was an issue with workload, and the program was not conducive to student’s lives. The program has been revised in consideration of those issues, and there will be extensive
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<td>changes to the program and course outcomes that will incorporate flexibility for students. Leah Nusgart mentioned that it might be a good idea to have ethics classes, and in particular, Aboriginal matters. Andrea says it is one of their aims, as is outreach to the community and schools. Kathryn McNaughton asked if we have any articulation agreements with other schools, such as Kwantlen? Andrea says that we are going to look into it. Michael Yue commented regarding the financial side of this endeavor. It is extremely expensive to try to renew a major program such as this. He is very pleased that CS is going to be eligible for curriculum development funding. <strong>Motion:</strong> Moved by Debbie Sargent and seconded that the Education Council recommend that the Board of Governors approve continued development of the Fashion Art Diploma. All in favour. <strong>Motion carried.</strong></td>
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<td>d)</td>
<td>Renal Dialysis Program Proposal</td>
<td>Michael Yue and Rebecca Bennett outlined the proposal, which is the only program of this type in British Columbia. This program will be similar in structure to the Medical Device Reprocessing Technician program, but only about half as long. Currently, Renal Dialysis is offered as a certificate program. Due to change in credit requirements for credentials, the program is being redeveloped into a Citation. <strong>Motion:</strong> Moved by Jo-Ellen and seconded that the Education Council recommend that the Board of Governors approved continued development of the Renal Dialysis Program Proposal. All in favour. <strong>Motion carried.</strong></td>
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<td>6.</td>
<td>Committee Reports</td>
<td>Mike Tunnah noted that the key point of these policies and procedures is that a lot of our students come from non-traditional academic backgrounds, so this policy will allow another means of assessment. He mentioned that in our recent Policy Committee meeting we discussed</td>
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<td>Red River College, and suggested that EDCO have a look at the website to see how they go about informing students how PLAR is used.</td>
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<td>David Branter is unclear as to the intent. What do students sign up for? Do they sign up for course they intend to PLAR for? What are the steps to the process? Mike directed him to item 2a of the Procedures.</td>
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<td>Jan Weiten asked for clarification on #4 of the Procedures, regarding withdrawing. She suggested that if it does need to be in there, it can be a separate point.</td>
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<td>Debbie Sargent asked how students will know how much they would need to pay. Where will they provide transparency to students how much they would need to pay.</td>
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<td>Jan Weiten asked about page 51 #8 where PLAR is not successful. She is not sure why it would be in the policy/procedure as they would get a grade anyway.</td>
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<td>Charly Jadranin made a comment regarding overseas applicants, such as BSN and LPN. Todd mentioned that PLAR only applies to courses, not admission to programs.</td>
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<td>Nona Coles asked how having PLAR affects faculty and cost-efficiency on the program. Debbie says it would not have any real effect.</td>
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<td>It was noted that PLAR requires faculty to assess the students, so workload needs to be a consideration.</td>
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<td>These documents will go back to the Policy Committee for further discussion.</td>
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   ii) **New Transfer Credit Policy**

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<td>Mike Tunnah distributed a handout of the new Transfer Credit Policy, and apologized that an older version of the policy was included in the EDCO package.</td>
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<td>Mike explained what the differences in the two versions are.</td>
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<td>Due to the number of changes between the version, EDCO agreed to review this policy in January to allow sufficient time for review.</td>
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<td>iii)</td>
<td>C.1.1 Grading Progression and Withdrawal Policy</td>
<td>Mike Tunnah presented Policy Committee’s recommendation that we remove the RW grade, and that all withdrawals receive a W on the transcript. Instructors will still have the ability to require a student to withdraw, and their student record would record that, but the transcript would be a W. Policy Committee felt the potential stigma of an RW was unnecessary, and most (but not all) institutions do not use such a designation. What it comes down to is that we can still require a student to withdraw, but on the transcript we use W. Charly Jadranin ask if we are concerned about the removal of RW in the Engineering program, and how that impacts the agreement we have with SFU. Mike will follow up. Jan Weiten inquired about #34. What if a student registers for a course, and stops attending after a few classes? Do we still have some leeway? Mike says that different departments use W in different ways. Taryn Thomson had concerns about the ramifications on refunds. Jan Weiten said that it is tied into AUG funding. We ask students who have valid issues to withdraw, so they will get another try. Charly Jadranin mentioned that in Banner, there is a section for comments so decisions on financial aid won’t be affected. Anyone that has access to BDM can see documents in student's file. Jan Weiten directed a question to David Wells. Will there be any problems with AUG funding? David says no. No motion was made, so EDCO accepted Policy Committee’s recommendation. The Grading, Progression, and Withdrawal Policy will return to EDCO for final approval at a later date.</td>
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<td>b)</td>
<td>Curriculum Standing Committee</td>
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<td>i)</td>
<td>Baking Apprentice</td>
<td>David Branter presented this proposal. <strong>Motion:</strong> Moved by David Branter and seconded that Education Council approve the Baking</td>
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<td>Discussion</td>
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|      |       | Apprentice changes.  
David noted that some sentences have “etc.” in it, and he will require that Fionna Chong complete these sentences.  
All in favour of approving the proposal with changes as noted. **Motion carried.** |
| ii) | Baking Foundation | David Branter presented this proposal.  
**Motion:** Moved by David Branter and seconded that Education Council approve the Baking Foundation changes.  
David noted that some sentences have “etc.” in it, and he will require that Fionna Chong complete these sentences.  
All in favour of approving the proposal with changes as noted. **Motion carried.** |
| iii) | LINC 1 - 6 | David Branter presented course documentation for LINC 1, 2, and 3. They have never come through before, and is intended to bring consistency in course naming.  
David also noted that on page 145, there is wording that needs to be corrected.  
**Motion:** Moved by David Branter and seconded that Education Council approve LINC 1 through 6.  
All in favour of approved the proposal with changes as noted. **Motion carried.** |
| iv) | Changes to Legal Administrative Assistant Program | David Branter and Helen Roberts presented this proposal.  
**Motion:** Moved by David Branter and seconded that Education Council approve the changes to the Legal Administrative Assistant Program.  
All in favour. **Motion carried.** |
| v)  | Curriculum Updates | David Branter presented his report, which outlined approved proposals from August to November 2015 by the Curriculum Committee.  
This report will be included in the December EDCO package for reference. |
<p>| c)  | Appeals Oversight Committee | No report |</p>
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<td>d)</td>
<td>Program Review and Renewal Ad Hoc Committee</td>
<td>Todd Rowlatt discussed his Information Note. He and Jo-Ellen Zakoor will work on drafting some Terms of Reference to go to EDCO. Todd Rowlatt nominated Jo-Ellen Zakoor to be Ad Hoc Committee Chair, and called for other nominations. There were none. Jo-Ellen was appointed as Chair.</td>
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<td>e)</td>
<td>Educational Priorities Ad Hoc Committee</td>
<td>No report</td>
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| 7.   | Education Council Elections | To run the elections, the Chair seat was relinquished to the Dean of the School of Access, David Wells.  
**Election of EDCO Chair:**  
First call for nominations:  
   - Nona Coles nominates Todd Rowlatt. Nomination accepted.  
Second call for nominations:  
   - There were none.  
Third call for nominations:  
   - There were none.  
By acclamation, Todd Rowlatt was announced the Chair of Education Council.  
**Election of EDCO Vice Chair:**  
First call for nominations:  
   - Jan Weiten nominates Jo-Ellen Zakoor. Nomination accepted.  
Second call for nominations:  
   - There were none.  
Third call for nominations:  
   - There were none.  
By acclamation, Jo-Ellen was announced the Vice Chair of Education Council.  
**Election of Officers of the EDCO Executive (2 positions):**  
First call for nominations:
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<td>Jo-Ellen Zakoor nominates Jan Weiten. Nomination accepted.</td>
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<td>Second call for nominations:</td>
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<td>Jan De Leebeeck nominates Leah Nusgart. Nomination accepted.</td>
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<td>Third call for nominations:</td>
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<td>There were none.</td>
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<td>By acclamation, Jan Weiten and Leah Nusgart were announced the Officers of the Executive of Education Council.</td>
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**Election of Appeals Committee Chair:**
First call for nominations:
   Todd Rowlatt nominates Debbie Sargent. Nomination accepted.
Second call for nominations:
   There were none.
Third call for nominations:
   There were none.

By acclamation, Debbie Sargent was announced the Chair of the Appeals Committee.

**Election of Curriculum Committee Chair:**
First call for nominations:
   Taryn Thomson nominates David Branter. Nomination accepted.
Second call for nominations:
   There were none.
Third call for nominations:
   There were none.

By acclamation, David Branter was announced the Chair of the Curriculum Committee.

**Election of Education Policy Committee Chair:**
First call for nominations:
   David Branter nominates Mike Tunnah. Nomination accepted.
Second call for nominations:
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<td>There were none. Third call for nominations: There were none. By acclamation, Mike Tunnah was announced the Chair of the Education Policy Committee.</td>
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<td>8.</td>
<td>Chair Report</td>
<td>Todd Rowlatt mentioned that there will be a Board meeting next week. He also expressed how much he has enjoyed working with this EDCO group.</td>
</tr>
<tr>
<td>9.</td>
<td>Student Representative Report</td>
<td>No report</td>
</tr>
<tr>
<td>10.</td>
<td>Pending Items</td>
<td>None</td>
</tr>
<tr>
<td>11.</td>
<td>Next meeting</td>
<td>January 12, 2016, 3:30-5:30 pm, Room 5025 BWY-A</td>
</tr>
<tr>
<td>12.</td>
<td>Adjournment</td>
<td>The meeting adjourned at 5:29 p.m.</td>
</tr>
</tbody>
</table>

ATTENDEES: Todd Rowlatt Jo-Ellen Zakoor Kathryn McNaughton Leah Nusgart Debbie Sargent David Wells Charly Jadranin Nona Coles Rick Cyr Jan Weiten Jan Theny Taryn Thomson Jan De Leebeeck Elle Ting Mike Tunnah Taryn Thomson

REGRETS: Peter Nunoda Paul Yeung Dave McMullen

GUESTS: Michael Yue Andrea Korens Rebecca Bennett Claire Sauvé Karen Shortt Dennis Innes

RECORDING SECRETARY: Ella Ho

Todd Rowlatt, Chair
VCC Education Council
Audiences

1. Employees
2. Alumni
3. Current donors
4. Past donors
5. Suppliers
6. PACs and employers
7. New to VCC – crowdfunding pilot planned for Feb 2016
abeyance

/əˈbəŋəns/
noun: abeyance
a state of temporary disuse or suspension.
“matters were held in abeyance pending further inquiries”

synonyms: in suspension, in a state of suspension, in a state of dormancy, in a state of uncertainty, in remission; pending, suspended, deferred, postponed, put off, put to one side, unresolved, up in the air;
informal: in cold storage, on ice, on the back burner

(VCC Foundation came out of abeyance Sep 2014)
VCCF Mission Statement

1. Separate registered charity.
2. To stimulate financial support for VCC students and programs. Seek donations.
3. Ensure prudent management of funds received and steward existing donors.
4. Encourage community’s goodwill toward the College.
• Raised more $s with less than half the staff
• Average gift is higher
Corporate giving rose and correlation between total donations and total donors is consistent.
FAST FOUNDATION
FUND FACTS

- 150 flow-through accounts
- 99/150 are endowed
- 51/150 annually-funded
- Total investments $13.15M
1-3 Year Business Plan
VCCF fits all KSDs

Foundation work most obviously fits 3, 4 and 5 but equipment gifts and work with alumni, PACs, employers & community also help 1 & 2

KSD #1 Educational Quality
KSD #2 Operational Excellence
KSD #3 Financial Stability & Sustainability
KSD #4 Reputation Management
KSD #5 Business Development
What is the Foundation’s focus?

1. Stewardship and fund management
2. Increase scholarships and bursaries
3. Grant applications
4. Donations / sponsorship support
5. Target less restrictive gifts from new donors (e.g. so we can utilize funds for operations)
Scholarships & Bursaries

1. Spring and Fall Awards
2. Ongoing bursary distribution
3. New awards and bursaries
4. Engaging VCC community in giving (e.g. USEED)
5. One major fundraiser annually (2015 50 Years. 50 Chefs.)
Grant calendar

Variety – The Children’s Charity

WorkSafeBC

Ask us for help! We’ve been successful in 52% of written applications since Sep 2014
Employee Giving

Annual Giving Campaign
Holiday Giving
United Way
(separate charity)
#GivingTuesday
Fundraising events
Donations/sponsorship support

Fiat Mode
Try-a-trade
50 Years. 50 Chefs.
??

Events or activities that fits with our fundraising or sponsorship goals?
What is USEED?

USEED is a crowdfunding platform – other PSIs stats:

- 30 to 60% of gifts come from alumni
- over 50% of donors are new
- ideal for class projects, student orgs, study abroad, affinity programs, club sports
- 93% USEED campaigns beat their goal
- dollars increase 2X the second time a volunteer fundraises online
Fundraising 101 Toolkit

1. Ask letter template
2. Who to ask? worksheet
3. Types of gifts
4. Donation form

Training materials here:
J:\COMMON\VCC Foundation\Fundraising 101 Toolkit
It’s easy to give...

1. Payroll deduction
2. One-time gift [www.vcc.ca/makeagift](http://www.vcc.ca/makeagift)
3. [Catalogue of Gifts](http://www.vcc.ca/makeagift)
4. Call Anita 604.871.7000, ext. 7063 or Nancy 604.871.7067
5. Gifts in kind: training materials, equipment, shares, property, etc.

J:\COMMON\VCC Foundation\Fundraising 101 Toolkit
Vancouver Community College Foundation
Authorization for Donation by Payroll Deduction

Date: ____________________________________________

Employee Name ________________________________________

Employee Number ________________________________________

Effective immediately, I authorize Vancouver Community College to deduct a donation of $_______ (tax deductible) in each pay period. This deduction is to be made for the term indicated below:

☐ One Year

or

☐ Until I advise Payroll to discontinue this deduction

I wish my donation to be applied to the following fund:

__________________________________________________________ (name of fund)
Launched in 2014 our own interface for online giving which fully integrates with Raiser’s Edge

www.vcc.ca/makeagift
Launched in 2015 with Culinary & Music, changing out to Health for early 2016. Raised over $3,000 in pilot phase, will continue to maintain and grow in conjunction with crowdsourcing in 2016-17.
N.B. Gifts in kind

1. What’s the value?
2. Determine usefulness
3. Obtain Dean’s approval
4. Must be delivered to VCC

Canada Revenue Agency

Find lost alumni
WHAT'S HAPPENING: December 2013

Greetings!
Before the crazy holiday season is in full swing, we have alumni updates and news to share... Oh, and go ahead and get ready! VCC Elves may visit your workplace in the coming year...

VCC ELVES AT WORK!→
Convocation

Congratulations to our newest group of alumni! Graduates participated in three fabulous Convocation ceremonies on Thursday, November 21.

Congratulations are also in order for our three accomplished valedictorians. Read about them here.

CHECK OUT PHOTOS FROM THE EVENT>

Alumni Profile

Kudos are in order to VCC Music alums Rykka and Daniel Ruiz who recently won first and third place respectively in the Peak Performance Project!

READ DANIEL'S PROFILE>
2015 events

Feb. 28 Music’s 40th Anniversary
Mar. 4 Try-a-trade / AST Regional Skills
Apr. 22 Info Night
Apr. 23 Career Fair
Apr. 29 REEL Canada
Apr. 30 Delta Trades & Technical Fair
May 7 VCC Retirement event
May 27 Spring Awards
2015 events

June 19 Spring Convocation
August 28 TIP Golf Tournament
September 30 Fiat Mode
October 21 Fall Info Night
November 17 50 Years. 50 Chefs.
November 20 Fall Awards
November 26 Fall Convocation
2015 Highlight

50 Years. 50 Chefs. enabled us to reconnect with donors.

- Canvassed over 150 potential sponsors
- $110K cash secured plus
- a new $50,000 endowment
- Many contacts requested we ask again this fiscal
2016 events

Feb. 18 Donor Recognition
Feb. ? Drafting Alumni Reunion
Mar. ? Hospitality Management Reunion & joint Executive Cohort recruitment activity
Apr. 8 VCC Employee 50th Anniversary – considering including Outstanding Alumni Awards
Apr. 20 Info Night
May ? VCC Retirement event
May 23 (TBC) Spring Awards
2016 events

June 16 Spring Convocation
August ? TIP Golf Tournament
September ? Fiat Mode
October ? Fall Info Night
November ? Career Services Week
November 10? Gala fundraiser #2
November 23 (TBC) Fall Awards
November 17 Fall Convocation
Thank you

“There are two ‘i’s’ in Fundraising – they should stand for inspiration and innovation, not imitation and irritation.”

– Ken Burnett.

“It always seems impossible, until it’s done.” – Nelson Mandela.
January 1, 2016

PREPARED FOR: Education Council

ISSUE: D.1.3 Copyright policy and procedures

BACKGROUND: There have been many recent changes in Copyright legislation that have impacted how we access materials. This policy and its related procedures provide clear direction on the process and each stakeholder’s responsibility when it comes to Copyright compliance.

DISCUSSION: This policy clearly identifies how faculty and students are responsible for becoming informed of all Copyright procedures and guidelines. Education Policy committee discussed how important it is that the college community is in compliance with the Copyright Act so as to avoid any possible negative consequences such as legal action.

RECOMMENDATION:

Education Policy Committee provides D.1.3 Copyright policy and procedures to Education Council for information and recommends it be posted for community feedback.

Prepared by:
Mike Tunnah
Chair, Education Policy Committee
CONTEXT AND PURPOSE
Vancouver Community College (VCC; the College) is in compliance with the provisions of the Copyright Act of Canada and is committed to the fair and ethical use of copyrighted materials at the College.

SCOPE AND LIMITS
This policy applies to all employees and students at VCC.

This policy is subject to all applicable federal and international laws and to licensing agreements.

STATEMENT OF POLICY PRINCIPLES
1. All College employees and students are responsible for using copyright protected works in accordance with the Copyright Act and within the terms of negotiated license agreements.

2. It is the responsibility of each individual to be familiar with the College Copyright Policy, Copyright Act and Fair Dealing Guidelines.

3. The College maintains a Copyright Coordinator position in the Library and appropriate resources to provide copyright information through the Library website and to support the College in copyright compliance.

4. College employees and students may reproduce and use copyright protected works for educational purposes where the Copyright Act, Fair Dealing Guidelines and/or license agreements permit such use.

5. When reproduction or use of materials for instructional purposes is not permitted under the above, permission must be sought through the Copyright Coordinator.
DEFINITIONS
Refer to the related Procedures document for definitions which will enhance the reader’s interpretation of this Policy.

RELATED POLICIES & LEGISLATION
Legislation:
Copyright Act, RSC 1985, c C-42  http://laws-lois.justice.gc.ca/eng/acts/c-42/

Policies:
D.1.4 Curriculum/Instructional Materials Created within the College

RELATED PROCEDURES
Refer to D.1.3 Copyright Procedures.
PROCEDURES

Policy No. D.1.3
Title Copyright
Approving Jurisdiction Board of Governors
Policy Sponsor Vice President, Academic, Students & Research
Last Revised/Replaces January 2010
Effective Date January 4, 2016
Signed by

January 4, 2016

DEFINITIONS
Copyright: The sole right of the copyright owner of a work to produce, copy, perform, publish, adapt, translate or telecommunicate that work and to authorize others to do the same.

Copyright Act of Canada: The Federal legislation that governs all matters related to copyright.

Copyright Cooperative: An organization that represents creators and licenses the use of their work.

Copyright Coordinator: A librarian at the College with expertise on copyright matters, who maintains copyright information, obtains copyright permissions where required, and who provides copyright information, guidance, and workshops.

Fair Dealing: The provision in the Copyright Act that allows limited copying and communicating of a work for the purposes of research, private study, education, criticism, review, news reporting, satire, and parody.

License agreement: A contract which outlines how licensed materials may be used.

PROCEDURES
1. Information regarding the use of copyrighted materials for education purposes is available in the Copyright Guide located on the Library website.

2. It is the responsibility of each individual to be familiar with the College Copyright Policy, Copyright Act and Fair Dealing Guidelines. Employees and students are responsible for consulting the Copyright Guide prior to copying, using and distributing copyrighted materials in face-to-face or online courses.

3. Questions regarding the Copyright Guide should be directed to the Copyright Coordinator or another librarian.
4. College and departmental copyright workshops are offered several times a year by the Copyright Coordinator and individual consultations are offered on a continual basis.

5. When the Copyright Act, fair dealing guidelines and/or licensing agreements do not allow for the instructional use of copyrighted materials, employees should contact the Copyright Coordinator to initiate a copyright permission request with the copyright owner or copyright cooperative.

6. Records for all copyright clearances, permissions and licenses are retained by the Copyright Coordinator.

RELATED POLICY
Refer to Copyright Policy D.1.3.
BACKGROUND: This comprehensive policy and procedures outlines the conditions under which people can access the library resources available at Vancouver Community College.

DISCUSSION: Details such as borrowing, suspension of library privileges, access for alumni and community borrowers and use of equipment are covered in this very easy to read policy and procedures. Policy committee is still working on language around children in the library and the continuation of library and computer access for students in between semesters. Currently these students lose access so we’ve been in touch with IT to see if students who finished a course but are continuing can retain access to these services.

RECOMMENDATION: Education Policy Committee provides D.1.5 Use of Library Resources policy to Education Council for information and recommends it be posted for community feedback.

Prepared by:
Mike Tunnah
Chair, Education Policy Committee
CONTEXT AND PURPOSE
This policy and related procedures govern the use of services and materials provided by the Library at Vancouver Community College (VCC; the College). In support of the education, research and activities of students and employees at the College, VCC Library provides access to: information resources and technology; study, group and research space; computers and printing; and A/V equipment.

The College and Institute Act, Section 23(1) states “an education council must advise the board and the board must seek advice from the education council, on the development of educational policy for the following matters ... (g) policies concerning library and resource centres.”

SCOPE AND LIMITS
Applies to all current students and employees, and any other persons entering the Library or using its resources.

STATEMENT OF POLICY PRINCIPLES
1. The primary goal of VCC Library is to support education and research at the College, as well as College operations. The Library strives to maximize access to information and services for current students and employees.
2. VCC Library provides a welcoming learning environment that is safe and accessible for all.
3. Any person may use the print materials within the Library, and may consult with Library staff for assistance in using this material.
4. Library card holders are responsible for the Library material they borrow and may be subject to penalties and sanctions if material is overdue, damaged or not returned.
5. VCC Library complies with all legal requirements and licensing agreements when providing access to Library resources.
6. The Library will establish agreements (such as interlibrary loan or reciprocal borrowing agreements) with other libraries when possible in order to expand access to resources available to our current students and employees.
7. To protect the privacy of library users and their right to access information without prejudice, the Library does not release information about Library users or materials used to any other
person, institution, agency or association except for reporting fines regarding Library materials to the Registrar’s Office, or when required to do so by a court of law.

DEFINITIONS
Refer to the related Procedures document for definitions which will enhance the reader’s interpretation of this Policy.

RELATED POLICIES & LEGISLATION
Legislation:
BC College and Institute Act, Section 23(1)(g)
Canadian Copyright Act
BC Freedom of Information and Protection of Privacy Act

Policies:
A.3.6 Standards of Employee Conduct and Conflict of Interest
B.5.2 Appropriate and Responsible Use of Education and Information Technology
D.1.2 Selection of Instructional and Library Materials
D.1.3 Copyright
D.4.3 Student Code of Conduct (Non-Educational Matters)
D.4.5 Student Educational Conduct
D.6.1 Off Campus College Related Use of College Equipment

RELATED PROCEDURES
Refer to Policy D.1.5 Use of Library Resources Procedures.
DEFINITIONS

Alumni: Former students who qualify for alumni status may receive a free community borrower card.

Community Borrowers: Members of the public may purchase a library card for a yearly fee. Retired VCC employees and other categories of special borrowers may receive a free community borrower card.

Interlibrary Loan (ILL): The cooperative exchange of items among libraries, in response to specific user requests.

Library Resources: All Library material that can be borrowed by a Library user (including books, journals, DVDs or technology), online resources (such as databases, e-books and streaming video), computers, listening and viewing equipment, services, group study rooms and facilities.

Library Privileges: The rights and responsibilities of Library users, including how many items can be borrowed, loan periods, fine rates and use of all services. These will differ by category of user (e.g. students and employees have different loan periods for a book).

Reciprocal Borrowing: Agreements between academic institutions allow students and employees to borrow material from other academic institutions. VCC has reciprocal borrowing agreements with most BC post-secondary institutions. Borrowing restrictions and fees may apply.

PROCEDURES

1. Any person may enter the Library to use the print materials within the Library (such as the books, magazines and newspapers) and may consult with Library staff for assistance in filling an information need.

2. Limits on the use of some Library resources by the general public may be imposed due to licensing agreements or availability, and are outlined on the Library website.

3. There are four (4) categories of people who can borrow material from VCC Library:
a. Current students of VCC;
b. Current employees of VCC;
c. Current students and employees at other publicly funded BC post-secondary institutions, or any other institution where there is a reciprocal borrowing agreement; and
d. Alumni and community borrowers.

4. A valid VCC library card must be presented each time resources or equipment is borrowed. The VCC ID card is the library card for current students and employees. Cards are provided for other BC post-secondary students/employees, alumni and community borrowers.

USING LIBRARY RESOURCES

5. The Library privileges for the different categories of borrowers are outlined on the Library website. This includes the following:
   a. Maximum number of items that can be checked out to a borrower at any given time;
   b. Length of loan periods for different types of resources;
   c. Number of renewals per item;
   d. Number of requests allowed;
   e. Overdue fine rate and maximum fine per item;
   f. Booking of equipment, audio-visual material or study rooms;
   g. Access to Library computers and any material subject to a license agreement;
   h. Access to interlibrary loan services; and
   i. Any additional restrictions to borrowing materials or use of Library resources.

6. Borrowing privileges of students begin when they pay the fees to the College for their program and/or course.

7. Borrowing privileges for students expire one (1) month after the end date of their course or program.

8. Borrowers must return or renew materials by the due date. If materials are damaged, lost or returned late, borrowers must pay overdue, replacement or damage fees.

9. For lost or damaged items, borrowers are charged:
   a. The cost of replacing the item;
   b. Any overdue fines; and
   c. A service fee.

10. Current employees are not charged overdue fines but must pay to replace any item damaged or not returned within six (6) months.

SUSPENSION OF LIBRARY PRIVILEGES

11. Library privileges may be suspended if a user violates the College’s policies concerning conduct and respectful behavior.

12. Library privileges are blocked if a borrower owes $10 or more in fines. This will prevent borrowing of additional material until the amount of fines owed is under $10.

13. If a student owes $20 or more in fines, blocks are placed on the student accounts in the Registrar’s Office. Final grades and transcripts will not be issued to students until billed materials have been returned or paid for; students will not be able to register for other courses. The block is removed when the amount owed is under $20.

COMMUNICATION WITH USERS

14. Library notices and communications are usually sent by email.
15. The non-receipt of library notices does not relieve the user from responsibility for fines or other sanctions.

USE OF COMPUTERS
16. Library computers are available for current students and employees at all Library locations.
17. Computers may be made available to other users based on availability and criteria listed on the Library website.
18. All users who access and use the Library computers are required to use them appropriately and responsibly as defined in Policy B.5.2 Appropriate and Responsible Use of Educational and Information Technology.

USE OF LIBRARY FACILITIES
19. The Library will maintain guidelines on its website regarding the appropriate use of Library facilities and equipment to ensure the use of shared space is fair, equitable and respectful for all users.
20. Recognizing that the Library is used for quiet study as well as collaborative work, the Library will identify acceptable noise levels for different areas of the Library.
21. Children may not be left alone or unsupervised in the Library. Library staff cannot be responsible for the safety of unattended children.

PRIVACY
22. The Library does not release information about Library users or material used to any other person, institution, agency or association except for reporting charges regarding Library materials to the Registrar’s Office, or when required to do so by a court of law.
23. VCC will inform the user if a court order has been served and that it intends to comply.

SAFETY
24. In cooperation with appropriate College departments, the Library seeks to provide a safe and secure environment for everyone.
25. Personal items left unattended in the Library are taken to the Security Office and may be claimed there.
26. Library users are encouraged to alert Library staff if they feel uncomfortable or unsafe in the Library.

INTERLIBRARY LOAN
27. Through interlibrary loans, the Library will endeavor to borrow Library material not owned by VCC in support of VCC coursework, research or College operations, and to lend material to other institutions.
   a. High demand items may not be eligible for ILL (e.g. Reserves).
   b. Licensing agreements may also limit what is eligible for ILL (e.g. Articles from certain databases).
   c. VCC only interlends ILL material from Canadian libraries.
28. ILL is only available to current students and employees with valid Library privileges.
29. Material borrowed through ILL is subject to the loan policies and fees set by the lending library, which may differ from those of VCC Library.
30. ILL material may be renewed, depending on the policy of the lending library and is subject to recall by the lending library.
31. VCC Library will not attempt to borrow through ILL the following types of material:
a. Material already held at VCC Library;
b. Articles available in VCC Library’s online databases or e-journals; and
c. Materials limited by copyright or licensing agreements.

32. Due to budgetary limitations, the number of interlibrary loan requests processed for any one user may be restricted. The user will be informed by email.

RELATED POLICY
Refer to D.1.5 Use of Library Resources Policy.
PREPARED FOR: Education Council

ISSUE: New Visually Impaired courses and corrections to course documentation information

BACKGROUND: This proposal, presented by Rita Dilek, proposes four new courses: Braille 1 level 1 (VOVI 0711), Braille 1 level 2 (VOVI 0712), Braille 2 level 1 (VOVI 0721), Braille 2 level 2 (VOVI 0722) to replace the current Braille courses VOVI 0710 and 0720. This is essentially a restructuring of the current curriculum (course content). The rationale behind the proposal is to create courses with more manageable amounts of content. Students were often taking the current Braille 1 and 2 courses (VOVI 0710 and 0720) multiple times to achieve adequate skill and comprehension levels. The desired end result of the proposal is to have students achieving success with fewer repeats.

The corrections to course documentation consist of correcting the number of course contact hours from 78 to 96 for Basic Keyboarding (VOVI 0730), Basic Power Point (VOVI 0810) and Introduction to Database Management (VOVI 0820). This is a minor change and Curriculum Committee approved it.

DISCUSSION: The committee raised the possibility (regarding the new courses), if students were to be charged fees for these courses, that creating four courses instead of two could cause a financial burden. However, it was pointed out that taking four courses one or two times each would not be more expensive than taking two courses three or four times each.

RECOMMENDATION: Curriculum Committee recommends Education Council approve the four new Visually Impaired courses: Braille 1 level 1 (VOVI 0711), Braille 1 level 2 (VOVI 0712), Braille 2 level 1 (VOVI 0721), Braille 2 level 2 (VOVI 0722).

Prepared by: David Branter
Chair, Curriculum Committee
Use this form to outline revisions to existing curriculum or to describe the development of new curriculum. Complete one form for each submission to Curriculum Committee.

**PROGRAM/COURSE NAME(S):** Braille 1 Level 1 (VOVI 0711), Braille 1 Level 2 (VOVI 0712), Braille 2 Level 1 (VOVI 0721), Braille 2 Level 2 (VOVI 0722)

**ANTICIPATED START DATE:** January 2016

<table>
<thead>
<tr>
<th>Curriculum Developer: Rita Dilek</th>
<th>Title: Department Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>School/Centre: School of Access</td>
<td>Department: Visually Impaired</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:rdilek@vcc.ca">rdilek@vcc.ca</a></td>
<td>Phone/Ext.: 7339</td>
</tr>
</tbody>
</table>

A) DEVELOPMENT TYPE (select all that apply)

- **NEW PROGRAM**  
  Program has never been offered before at VCC or program has undergone significant and extensive changes to its PCG and/or course outlines, where these changes impact the nature or overall direction of a program.

- **NEW COURSE(S)**  
  Course has never been offered before at VCC either as a standalone course or as part of a new or existing program; or is a replacement course.  
  This course replaces: VOVI0710 and VOVI0720

- **CHANGE TO A PROGRAM AND/OR COURSE** (select all that apply)
  - Program/Credential
  - Prior Learning Assessment and Recognition (PLAR)
  - Program Admission Requirements
  - Program Learning Outcomes (Indicate outcome number(s): __________)
  - Grading system (at variance with policy C.1.1 Course/Program Grading)
  - Program duration/maximum allowable time for completion
  - Program GPA requirements
  - Program/Course Credit Hours
  - Course Evaluation Plan (at variance with policy C.1.1 Course/Program Grading)
  - Course sequencing (that impacts the year the course is offered in)
  - Other: ________________________________

- **MINOR REVISION TO A PROGRAM AND/OR COURSE** (select all that apply)
  - Program/Course Description
  - Program Purpose
  - Recommended Student Characteristics
  - Course Sequencing (that does not impact year the course is offered in)
  - Course Name/Number
  - Course Pre-requisite(s)/Co-requisite(s)
  - Course Learning Outcomes
  - Course Evaluation Plan (within policy C.1.1 Course/Program Grading)
  - Instructional Delivery Mode
### B) ATTACHED DOCUMENTATION

- Program Content Guide
- Course Outline(s)

All new, revised or replacement courses **must be approved in advance** with the Registrar's Office.

Course name and number: ____________________________

Course name and number: ____________________________

Course name and number: ____________________________

*(Add additional lines if required)*

### C) RATIONALE

1. For revisions to existing courses or programs, provide an explanation of the change(s) being requested and reason(s) for making the change. For new courses, provide a rationale for developing the course.

   VI Department has offered Braille 1 VOGI 0710 and Braille 2 VOGI 0720 for some years. Most students take these courses many times to learn the materials. So our department would like to offer each of these courses in two manageable parts to improve successful completion.

<table>
<thead>
<tr>
<th>2. Are there any expected costs as a result of this proposal?</th>
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<td></td>
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</table>
D) **CONSULTATION CHECKLIST** (select all that apply) See Appendix A for consultations guidelines.

<table>
<thead>
<tr>
<th>INTERNAL CONSULTATIONS</th>
<th>FEEDBACK (include date received)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCHOOLS</strong></td>
<td></td>
</tr>
<tr>
<td>X Faculty/Department</td>
<td>Divide courses into two manageable parts since students often repeat several times to learn the material. Dec. 2014</td>
</tr>
<tr>
<td>X Department Support Staff</td>
<td>Divide courses into two manageable parts since students often repeat several times to learn the material. Dec. 2014</td>
</tr>
<tr>
<td>Other Department(s)</td>
<td></td>
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<tr>
<td><strong>EDUCATIONAL AND STUDENT SERVICES</strong></td>
<td></td>
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<tr>
<td>Aboriginal Education and Community Engagement (AECE)</td>
<td></td>
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<tr>
<td>Assessment Centre</td>
<td></td>
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<tr>
<td>X Centre for Instructional Development</td>
<td>Agree with dept suggestion. Sept. and Nov. 2015</td>
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<tr>
<td>Counselling &amp; Disability Services (CDS)</td>
<td></td>
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<tr>
<td>Financial Aid</td>
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<td>Learning Centre</td>
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<td>Library</td>
<td></td>
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<tr>
<td>Registrar’s Office / Advising / Recruitment</td>
<td></td>
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<tr>
<td>Related additional Student Services</td>
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<tr>
<td>VCC International and Immigrant Education</td>
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<tr>
<td><strong>FINANCIAL AND OPERATING</strong></td>
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<tr>
<td>Communications and Marketing</td>
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<td>Facilities</td>
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<tr>
<td>Finance</td>
<td></td>
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<tr>
<td>Information Technology (IT)</td>
<td></td>
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<tr>
<td>Institutional Research (IR)</td>
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<tr>
<td>Safety and Security</td>
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<tr>
<td><strong>EXTERNAL CONSULTATIONS</strong></td>
<td><strong>FEEDBACK (include date received)</strong></td>
</tr>
<tr>
<td>PAC/CEG</td>
<td></td>
</tr>
<tr>
<td>Affiliation, Articulation and/or Accreditation bodies</td>
<td></td>
</tr>
<tr>
<td>PSIPs</td>
<td></td>
</tr>
</tbody>
</table>
E. Implementation Information

THE FOLLOWING MUST BE COMPLETED FOR NEW PROGRAMS AND NEW COURSES

COMPLETED BY REGISTRAR’S OFFICE:

1. Course Identifier:

   Subject Code:  
   Course #:  
   Credits:  
   Effective Term:  

2. College Code: ________________  Level: ________________
   Division Code: ________________  Major: ________________

COMPLETED BY FINANCE:

3. Which of the following fee structure applies?

   □ UT  □ Applied  □ ABE  □ Differential  □ Cost Recovery  □ IE  □ Contract

4. Finance Org Code: ________________

5. Tuition for all courses:  Domestic: ________________  International: ________________

6. College Initiative fee to be charged?  □ Yes  □ No

7. Student Society fees?  □ Yes  □ No

COMPLETED BY INSTITUTIONAL RESEARCH:

8. FTE Divisor: ________________

9. Classification Code: ________________

10. Taxonomy: ________________
E) FINAL REVIEW AND SIGN OFF

Approval verifies that each signatory has carried out the responsibilities assigned under the Curriculum Development and Approval Policy.

1. **As Department Leader I certify that:**
   a. Faculty in the department (and School, if appropriate) have been consulted and approve of the proposed changes; and
   b. All needed consultation has taken place with internal and external stakeholders, including industry and/or community partners.
   c. The curriculum meets institutional standards and the educational needs of students.

___Rita Dilek______________ __signed via email__________ _December 8, 2015_______
Name Sign off Date

2. **As Dean/Director I certify that:**
   a. Documentation meets the standards of the College, and all policies and procedures have been adhered to; and
   b. Resources required to offer and support the course/program have been assessed. If additional resources are needed, steps to secure the needed resources have been initiated.

___David Wells__________ __signed via email__________ _December 7, 2015___
Name Sign off Date
Curriculum Development Approval Form

*** FOR EDUCATION COUNCIL OFFICE USE ***

<table>
<thead>
<tr>
<th>CURRICULUM COMMITTEE</th>
<th>Date: December 15, 2015</th>
</tr>
</thead>
</table>

**Minor Revision**
- ☐ Approved as presented, proceed with implementation
- ☐ Approved with additional minor revisions
  - ☐ Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: _________
  - ☐ Reclassified as a *significant change*

**New Course or Significant Change to a Program/Course**
- X Recommend to EDCO as presented, proceed to EDCO
- ☐ Recommend to EDCO with additional minor revisions
  - ☐ Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: ______________
  - ☐ Recommend significant changes, return to Department Leader

**New Program**
- ☐ Recommend to EDCO as presented, proceed to EDCO
- ☐ Recommend to EDCO with additional minor revisions
  - ☐ Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: ______________
  - ☐ Recommend significant changes, return to Department Leader

<table>
<thead>
<tr>
<th>EDUCATION COUNCIL</th>
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**Minor Revision**
- ☐ Received as Information
- ☐ Request review of documentation from Curriculum Committee
- ☐ Reclassified as *major*, return to Curriculum Committee

**New Course or Significant Change to a Program/Course**
- ☐ Approved as presented, proceed with implementation
- ☐ Approved with additional minor changes
  - ☐ Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: _________
  - ☐ Recommend significant changes, return to Department Leader

**New Program**
- ☐ Recommend to Board as presented, proceed to Board
- ☐ Recommend to Board with additional changes
  - ☐ Revisions approved by Curriculum Committee Chair, proceed to Board  Date: ______________
  - ☐ Recommend significant changes, return to Dean

<table>
<thead>
<tr>
<th>BOARD OF GOVERNORS</th>
<th>Date: _________________________</th>
</tr>
</thead>
</table>

**New Credential/Program**
- ☐ Approved, proceed to implementation
- ☐ Not approved (provide reason) __________________________
Course Name: Braille 1 - Level 1

Department Head/Coordinator: Rita Dilek  
Effective Date: March 2015

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<tr>
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<tbody>
<tr>
<td>VVOI 0711</td>
<td>0</td>
</tr>
</tbody>
</table>

Course Pre-requisites (if applicable):

Fundamental literacy skills (reading & writing) at the Grade 4 Level or equivalent.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

- [ ] No  - [ ] Yes (details below):

Course Description:

This course teaches students with a fundamental literacy level of Grade 4 and above how to read and write words containing the letters A through M of the alphabet using uncontracted braille code. Numbers are introduced with the goal of providing functional literacy skills in braille.
Course Learning Outcomes:

Upon successful completion of this course, students will be able to

1. Identify long and short words.
2. Read aloud words containing the letters A through M.
3. Be able to write and spell simple words using the letters A through M.
4. Read some words and numerals in noncontextual environments (e.g. phone numbers and simple braille signage).
5. Braille one page of uncontracted double-spaced text using the Perkins brailer, with no more than 3 errors.

Program Learning Outcomes:

N/A
**Evaluation/Grading System**  
(Click on drop down box arrows to see list of options)

<table>
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<td>Final Exam</td>
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</tbody>
</table>

Total 100

**Learning Environment/Type**  
(Select all that are used within the course)

<table>
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<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>S - Self-paced</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 96

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Tactual readiness
- Introduction of jumbo braille
- Introduction of alphabet symbols A through M
- Introduction of numeric indicator
- Introduction of punctuation
- Dot positioning
- Braille in non-text environments
- Perkins brailler

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<tbody>
<tr>
<td>CC: Dec. 15, 2015</td>
<td></td>
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</tbody>
</table>
**Course Name:** Braille 1 - Level 2

**Department Head/Coordinator:** Rita Dilek  
**Effective Date:** March 2015

<table>
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<tr>
<th>School or Centre:</th>
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<tbody>
<tr>
<td>VOVI 0712</td>
<td>0</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**
Successful completion of Braille 1 Level 1 and fundamental literacy skills (reading & writing) at the Grade 4 Level or equivalent.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- [x] No  
- [ ] Yes (details below):

Ability to read simple words using the letters A through M of the alphabet, as well as numbers from 1 through 10.

**Course Description:**
This course teaches students with a fundamental literacy level of Grade 4 and above how to read and write words containing all the letters of the alphabet using uncontracted braille code. Punctuation and formatting symbols are introduced with the goal of providing functional literacy skills in braille.
Instructional Strategies:

---

Course Learning Outcomes:

Upon successful completion of this course, students will be able to

1. Read aloud one page of double-spaced uncontracted braille code at a pace of 10 words a minute or more, and 70% accuracy answering basic comprehension questions.
2. Read numerals and symbols in noncontextual environments (e.g. labels on packages, cans).
3. Braille at least one page of uncontracted double-spaced text using the Perkins brailler, with no more than 3 errors.

---

Program Learning Outcomes:

N/A
**Evaluation/Grading System**  
(Click on drop down box arrows to see list of options)

<table>
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<tr>
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**Components and Weighting of the Assessment/Evaluation Plan:**  
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**Total** 100

**Learning Environment/Type**  
(Select all that are used within the course)

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<tr>
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<td>96</td>
<td></td>
</tr>
</tbody>
</table>

**Enter Total Hours** 96

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Introduction of alphabet symbols M through Z
• Special signs: capitals and double capitals
• Punctuation signs
• Dollar signs, simple math symbols, fractions, and percentage
• Formatting symbols
• Braille in non-text environments

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<tr>
<td>CC: Dec. 15, 2015</td>
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</table>
**Course Name:** Braille 2 - Level 1

**Department Head/Coordinator:** Rita Dilek  
**Effective Date:** March 2015

<table>
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<th>School or Centre:</th>
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<tbody>
<tr>
<td>VOV1 0721</td>
<td>0</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

Successful completion of Braille 1 or the ability to read and write one page of text into uncontracted braille.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**

No  Yes (details below):

**Course Description:**

This course teaches students with a fundamental literacy level of Grade 4 and above how to read and write using contracted braille code: alphabetic whole words, short form words from pages 1-66 of Volume 4 of Celebrating Braille—A Canadian Approach.
Instructional Strategies:

**Course Learning Outcomes:**

Upon successful completion of this course, students will be able to

1. Read aloud two pages of single-spaced contracted braille code at a pace of 10 words a minute or more, and 70% accuracy answering basic comprehension questions.
2. Accurately translate uncontracted braille into contracted braille.
3. Braille 3 single spaced pages in contracted braille using the Perkins brailler, with no more than 3 errors per page.

**Program Learning Outcomes:**

N/A
### Learning Environment/Type

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**Enter Total Hours:** 96

### Components and Weighting of the Assessment/Evaluation Plan

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**Total 100**

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

---

**Evaluation/Grading System**

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Course Name: Braille 2 - Level 2

Department Head/Coordinator: Rita Dilek  
Effective Date: March 2015

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Course Number: VOVI 0722  
Number of Credits: 0

Course Pre-requisites (if applicable):
Successful completion of Braille 2 Level 1 or the ability to read and write uncontracted braille as well as alphabetic word sign, short form words, and some basic contractions.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No
Yes (details below):

Course Description:
This course teaches students with a fundamental literacy level of Grade 4 and above how to read and write using contracted braille code: lower signs, symbols, website, email and computer-based braille codes using pages 1-54 of Volume 5 of Celebrating Braille--A Canadian Approach.
Note to instructors: An instructional strategy is an approach that an instructor uses to achieve the learning outcomes (e.g., lecture, case study, video, group work).

Instructional Strategies:

Course Learning Outcomes:

Upon successful completion of this course, students will be able to

1. Read aloud one page of single-spaced double-sided (interpoint) contracted braille code at a pace of 20 words a minute or more, and 80% accuracy answering basic comprehension questions.
2. Accurately translate uncontracted braille into contracted braille.
3. Braille 3-4 pages of single-spaced contracted braille text using the Perkins brailler, with no more than 3 errors per page.
4. Braille information such as names, addresses, phone numbers and email addresses of contacts.
5. Braille a series of descriptions and addresses of websites useful to the visually impaired.

Program Learning Outcomes:

N/A
### Learning Environment/Type

Instruction Type | Hours Per Instruction Type | Comments
--- | --- | ---
S - Self-paced | 96 | 

Enter Total Hours | 96 | 

### Evaluation/Grading System

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<td>Final Exam</td>
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</tbody>
</table>

Total 100

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### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Lower signs
- Short-form words
- Initial letter contractions
- Final letter contractions
- Email and web addresses
- Develop reading speed and comprehension skills

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PREPARED FOR: Education Council

ISSUE: New course content for UT chemistry courses

BACKGROUND:
This proposal, presented by Diem Ly Van, deals with new course content for Chemistry 1 (CHEM 1121) and Chemistry 2 (CHEM 1223). The Course Descriptions have been altered and Course Learning Outcomes and Course Topics have been added to and removed from both courses. The details are in the proposal documents included in the meeting package.

These changes have been made to ensure the courses maintain provincial articulation. To a great extent the changes are in response to changes made to first year chemistry courses at UBC.

DISCUSSION:
Diem Ly Van explained to the committee that a statement regarding the requirement for students to pass both the lab and lecture portions of the course had been left off the course outlines. The committee decided, after some discussion regarding how the Lab portion was assessed, this statement should go in the Course Description.

RECOMMENDATION:
Curriculum Committee recommends Education Council approve the changes to course content for Chemistry 1 (CHEM 1121) and Chemistry 2 (CHEM 1223).

Prepared by:
David Branter
Chair, Curriculum Committee
We use this form to outline revisions to existing curriculum or to describe the development of new curriculum. Complete one form for each submission to Curriculum Committee.

PROGRAM/COURSE NAME(S):  Chemistry 1121 (Chemistry 1)

ANTICIPATED START DATE: September 2016

Curriculum Developer: Judith Wallace  Title: Instructor
School/Centre: School of Access       Department: College Foundations (Chemistry UT)
E-mail: juwallace@vcc.ca       Phone/Ext.: x2084

A) DEVELOPMENT TYPE (select all that apply)

☐ NEW PROGRAM  Program has never been offered before at VCC or program has undergone significant and extensive changes to its PCG and/or course outlines, where these changes impact the nature or overall direction of a program.

☐ NEW COURSE(S)  Course has never been offered before at VCC either as a standalone course or as part of a new or existing program; or is a replacement course.
This course replaces: ____________________________

X CHANGE TO A PROGRAM AND/OR COURSE (select all that apply)

☐ Program/Credential
☐ Prior Learning Assessment and Recognition (PLAR)
☐ Program Admission Requirements
☐ Program Learning Outcomes (Indicate outcome number(s): (NA)
☐ Grading system (at variance with policy C.1.1 Course/Program Grading)
☐ Program duration/maximum allowable time for completion
☐ Program GPA requirements
☐ Program/Course Credit Hours
☐ Course Evaluation Plan (at variance with policy C.1.1 Course/Program Grading)
☐ Course sequencing (that impacts the year the course is offered in)
XOther: Course topics

XMINOR REVISION TO A PROGRAM AND/OR COURSE (select all that apply)

☐ Program/Course Description
☐ Program Purpose
☐ Recommended Student Characteristics
☐ Course Sequencing (that does not impact year the course is offered in)
☐ Course Name/Number
☐ Course Pre-requisite(s)/Co-requisite(s)
☐ Course Learning Outcomes
☐ Course Evaluation Plan (within policy C.1.1 Course/Program Grading)
☐ Instructional Delivery Mode
☐ Language (e.g., Typos, Spelling Errors, etc.)
XOther: Course Topics (see above)
B) ATTACHED DOCUMENTATION

☐ Program Content Guide

XCourse Outline(s)

All new, revised or replacement courses must be approved in advance with the Registrar’s Office.

Course name and number: Chemistry 1 Chemistry 1121

Course name and number: ________________________________

Course name and number: ________________________________

(Add additional lines if required)

C) RATIONALE

1. For revisions to existing courses or programs, provide an explanation of the change(s) being requested and reason(s) for making the change.
   For new courses, provide a rationale for developing the course.

Our University Transfer Chemistry course is an important offering within our college. It is a prerequisite to the VCC dental hygiene program and a component in our new Engineering certificate. In addition, the course is designed to articulate provincially.

Recently UBC has made significant changes to its curriculum of both first and second year level chemistry courses. These changes became effective as of January 2015. By re-designing the course we are prepared to ensure that it can remain articulated provincially and we can continue to offer it.

We have been in communication with both UBC and SFU and their representative have indicated in writing that they are satisfied with the changes we will be making to the courses. Once the official course outlines are prepared we will be formally rearticulating these courses with both UBC and SFU.

Summary of the Revisions to Chemistry 1 (CHEM 1121)

1: Course Description:
Add – the course introduces quantum mechanics, organic chemistry, polymers, biopolymers and the importance of chemistry to society.
Add- Both the lab and lecture portions need to be passed in order to pass the course.

2: Course Learning Outcomes:
Add – describe the basics of introductory quantum mechanics and explain the chemical origin of light.
Add – apply theories of structure and bonding to polymers, biopolymers, and the understanding of chemistry and disease.
Add- write and draw chemical structures and formulae for typical organic and simple inorganic compounds. Provide their IUPAC names.

Remove – Explain the properties and reactivities of main group elements to illustrate energy and physical state transformations.

3: Course Topics:
Add – Basics of Quantum Mechanics
Add – Chemical Origin of Colour (Spectroscopy)
Add – Nomenclature of Organic Functional Groups and Simple Inorganic Species
Add – Applications of Structure and Bonding (Polymers, Biopolymers, Chemistry and Disease/Drugs)
Add – Chemistry and Society (Sustainability, Chemophobia, What Chemists Do)

4: Learning Outcomes:
We have confirmed the Learning outcomes match those in the PCGs.
If this course is taken as a requirement or an elective in the following first year, University Transfer Certificate programs, the learning outcomes are found in the Program Content Guides available at the Counselling and Advising Service areas.

University Transfer Arts Certificate
University Transfer Pathway to Health Sciences Certificate
University Transfer Science Certificate
University Transfer Engineering Certificate
University Transfer Computing Science and Software Systems Certificate

2. Are there any expected costs as a result of this proposal?

The lab component will need a re-design to fit these different topics. Because of the breathe of the changes substantial PD and AD time have been allocated for faculty to individually prepare themselves to teach the new course. CD time has been secured for lab re-design, development of instructional materials and to ensure re-articulation.
D) CONSULTATION CHECKLIST (select all that apply) See Appendix A for consultations guidelines.

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<td>DQAB</td>
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</table>
## E. Implementation Information

**THE FOLLOWING MUST BE COMPLETED FOR NEW PROGRAMS AND NEW COURSES**

### COMPLETED BY REGISTRAR’S OFFICE:

1. Course Identifier:

<table>
<thead>
<tr>
<th>Subject Code:</th>
<th>Course #:</th>
<th>Credits:</th>
<th>Effective Term:</th>
</tr>
</thead>
</table>

2. College Code: ___________________ Level: ________________
   
   Division Code: ___________________ Major: ________________

### COMPLETED BY FINANCE:

3. Which of the following fee structure applies?

   - [ ] UT  
   - [ ] Applied  
   - [ ] ABE  
   - [ ] Differential  
   - [ ] Cost Recovery  
   - [ ] IE  
   - [ ] Contract

4. Finance Org Code: ___________________

5. Tuition for all courses: Domestic: ___________________ International: ___________________

6. College Initiative fee to be charged?  
   - [ ] Yes  
   - [ ] No

7. Student Society fees?  
   - [ ] Yes  
   - [ ] No

### COMPLETED BY INSTITUTIONAL RESEARCH:

8. FTE Divisor: ___________________

9. Classification Code: _______________

10. Taxonomy: ___________________
E) **FINAL REVIEW AND SIGN OFF**

Approval verifies that each signatory has carried out the responsibilities assigned under the Curriculum Development and Approval Policy.

1. **As Department Leader I certify that:**
   a. Faculty in the department (and School, if appropriate) have been consulted and approve of the proposed changes; and
   b. All needed consultation has taken place with internal and external stakeholders, including industry and/or community partners.
   c. The curriculum meets institutional standards and the educational needs of students.

   __________________________  __________________________  __________________________
   Name                        Sign off                     Date

2. **As Dean/Director I certify that:**
   a. Documentation meets the standards of the College, and all policies and procedures have been adhered to; and
   b. Resources required to offer and support the course/program have been assessed. If additional resources are needed, steps to secure the needed resources have been initiated.

   __________________________  __________________________  __________________________
   Name                        Sign off                     Date
# Curriculum Development Approval Form

*** FOR EDUCATION COUNCIL OFFICE USE ***

## CURRICULUM COMMITTEE  Date: _________________________

### Minor Revision
- [ ] Approved as presented, proceed with implementation
- [ ] Approved with additional minor revisions
  - [ ] Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: ________
  - [ ] Reclassified as a *significant change*

### New Course or Significant Change to a Program/Course
- [ ] Recommend to EDCO as presented, proceed to EDCO
- [ ] Recommend to EDCO with additional minor revisions
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: ________________
  - [ ] Recommend significant changes, return to Department Leader

### New Program
- [ ] Recommend to EDCO as presented, proceed to EDCO
- [ ] Recommend to EDCO with additional minor revisions
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: ________________
  - [ ] Recommend significant changes, return to Department Leader

## EDUCATION COUNCIL  Date: _________________________

### Minor Revision
- [ ] Received as Information
- [ ] Request review of documentation from Curriculum Committee
- [ ] Reclassified as *major*, return to Curriculum Committee

### New Course or Significant Change to a Program/Course
- [ ] Approved as presented, proceed with implementation
- [ ] Approved with additional minor changes
  - [ ] Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: ________
  - [ ] Recommend significant changes, return to Department Leader

### New Program
- [ ] Recommend to Board as presented, proceed to Board
- [ ] Recommend to Board with additional changes
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to Board  Date: ________________
  - [ ] Recommend significant changes, return to Dean

## BOARD OF GOVERNORS  Date: _________________________

### New Credential/Program
- [ ] Approved, proceed to implementation
- [ ] Not approved (provide reason)  ____________________________________________________________

[VCC-CDAF-20150908]
**Course Name:** Chemistry 1

**Course Number:** CHEM 1121  
**Number of Credits:** 4.0  
**Effective Date:** September 2016

**Course Description:**
This course emphasizes the basic principles of structural chemistry, with application to the chemistry of the elements. The course introduces quantum mechanics, organic chemistry, polymers, biopolymers and the importance of chemistry to society. The laboratory illustrates the behavior of chemical systems and some of the basic techniques associated with quantitative chemical experimentation. Chemistry 1 is designed for students seeking a degree or diploma in a field of science, technology, or health, among others. Both the lab and lecture portions need to be passed in order to pass the course. It is also suitable as an elective course for General Interest or Arts students.

**Course Pre-requisites (if applicable):**
Chemistry 12 (or CHEM 0983/0993) with a C+ or equivalent, Precalculus 12 with a C+; or MATH 1020 with a C; or MATH 0993 both with a minimum of a C+; or VCC Math Precalculus Test (MPT) with a 72%.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
☑ No  ☐ Yes (details below):
Instructional Strategies:
The course will be a combination of lectures, discussion, research, and presentation in a classroom and laboratory setting.

Course Learning Outcomes:
At the end of the course the student will be able to
- describe the electron structure of atoms and the relationship between atomic structure and the periodic table.
- describe the basics of introductory quantum mechanics and explain the chemical origin of light.
- use the periodic table to make predictions regarding the properties of elements and the nature of the forces present in simple chemical compounds.
- describe the nature of ionic and covalent chemical bonds, the relationship between chemical bonding and molecular properties and predict the properties of simple covalent molecules.
- write and draw chemical structures and formulae for typical organic and simple inorganic compounds. Provide their IUPAC name.
- apply theories of structure and bonding to polymers, biopolymers and the understanding of chemistry and disease.
- communicate the importance of chemistry to society.
- safely and efficiently perform various chemistry experiments and identify and describe knowledge of common experimental techniques.
- communicate scientific information and solve basic chemistry problems through conceptual and mathematical understanding of chemical theory.
- analyze the connections between chemistry and the other scientific disciplines through critical thinking and conceptualization.

Program Learning Outcomes:
If this course is taken as a requirement or an elective in the following First Year University Transfer Certificate programs, the learning outcomes are found in the Program Content Guides available at the Counselling and Advising Service areas.

University Transfer Arts Certificate
University Transfer Pathway to Health Sciences Certificate
University Transfer Science Certificate
University Transfer Engineering Certificate
University Transfer Computing Science and Software Systems Certificate
Evaluation/Grading System

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<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
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<td>Other</td>
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<td>Class presentation</td>
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<td>Assignments</td>
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<td>Midterm Exam</td>
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<td>2 exams (15% and 20%)</td>
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<td>Final Exam</td>
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<td>Lab Work</td>
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<td>10 labs</td>
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<td><strong>Total</strong></td>
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Learning Environment/Type

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<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
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</table>

Resource Material(s):
Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:
Chemistry Review (matter and measure; atoms, molecules and ions; mass relationships in chemical reactions; reactions in aqueous solution; gases)
Periodicity and Atomic Structure
Basics of Quantum Mechanics
Chemical Origin of Colour (Spectroscopy)
Ionic Bonds
Covalent Bonds and Molecular Structure
Liquids, Solids and Phase Changes
Nomenclature of Organic Functional Groups and Simple Inorganic Species
Applications of Structure and Bonding (Polymers, Biopolymers, Chemistry and Disease/Drugs)
Chemistry and Society (Sustainability, Chemophobia, What Chemists Do)

VCC Education and Education Support Policies
There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:
http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY
Approved by Curriculum Committee: Dec. 15, 2015
Approved by Education Council: 
Curriculum Development Approval Form

Use this form to outline revisions to existing curriculum or to describe the development of new curriculum. Complete one form for each submission to Curriculum Committee.

PROGRAM/COURSE NAME(S): Chemistry 1223 (Chemistry 2)

ANTICIPATED START DATE: September 2016

Curriculum Developer: Judith Wallace  Title: Instructor

School/Centre: School of Access   Department: College Foundations (Chemistry UT)

E-mail: juwallace@vcc.ca   Phone/Ext.: x2084

A) DEVELOPMENT TYPE (select all that apply)

☐ NEW PROGRAM    Program has never been offered before at VCC or program has undergone significant and extensive changes to its PCG and/or course outlines, where these changes impact the nature or overall direction of a program.

☐ NEW COURSE(S)    Course has never been offered before at VCC either as a standalone course or as part of a new or existing program; or is a replacement course.
This course replaces: ______________________________________________

X CHANGE TO A PROGRAM AND/OR COURSE (select all that apply)

☐ Program/Credential
☐ Prior Learning Assessment and Recognition (PLAR)
☐ Program Admission Requirements
X Program Learning Outcomes (Indicate outcome number(s): (NA)
☐ Grading system (at variance with policy C.1.1 Course/Program Grading)
☐ Program duration/maximum allowable time for completion
☐ Program GPA requirements
☐ Program/Course Credit Hours
☐ Course Evaluation Plan (at variance with policy C.1.1 Course/Program Grading)
☐ Course sequencing (that impacts the year the course is offered in)
X Other: Course topics

X MINOR REVISION TO A PROGRAM AND/OR COURSE (select all that apply)

X Program/Course Description
☐ Program Purpose
☐ Recommended Student Characteristics
☐ Course Sequencing (that does not impact year the course is offered in)
☐ Course Name/Number
☐ Course Pre-requisite(s)/Co-requisite(s)
X Course Learning Outcomes
☐ Course Evaluation Plan (within policy C.1.1 Course/Program Grading)
☐ Instructional Delivery Mode
☐ Language (e.g., Typos, Spelling Errors, etc.)
X Other: Course Topics (see above)
B) ATTACHED DOCUMENTATION

☐ Program Content Guide

XCourse Outline(s)

All new, revised or replacement courses must be approved in advance with the Registrar’s Office.

Course name and number: Chemistry 2 Chemistry 1223

Course name and number: ________________________________________

Course name and number: ________________________________________

(Add additional lines if required)

C) RATIONALE

1. For revisions to existing courses or programs, provide an explanation of the change(s) being requested and reason(s) for making the change.
   For new courses, provide a rationale for developing the course.

Our University Transfer Chemistry course is an important offering within our college. It is a prerequisite to the VCC dental hygiene program and a component in our new Engineering certificate. In addition, the course is designed to articulate provincially.

Recently UBC has made significant changes to its curriculum of both first and second year level chemistry courses. These changes became effective as of January 2015. By re-designing the course we are prepared to ensure that it can remain articulated provincially and we can continue to offer it.

We have been in communication with both UBC and SFU and their representative have indicated in writing that they are satisfied with the changes we will be making to the courses. Once the official course outlines are prepared we will be formally rearticulating these courses with both UBC and SFU.

Summary of the Revisions to Chemistry 2 (CHEM 1223)

1: Course Description:
Add – CHEM 1121/1223
Add – chemical kinetics.
Remove - chemical equilibrium.
Add – Both the lab and lecture portions need to be passed in order to pass the course.

2: Course Learning Outcomes:
Add- solve problems in chemical thermodynamics and chemical kinetics involving the physical properties of matter in the solid, liquid and gaseous state.
Add – describe the structure and reactivity of organic molecules.
Remove – Write and draw chemical structures and formulae for typical organic compounds.
Curriculum Development Approval Form

Provide their IUPAC names.

**3: Course Topics:**
- Add – Chemical Kinetics
- Add – Organic Chemistry – Bonding, Structure and Reactivity
- Remove – electrochemistry
- Remove – applications of aqueous equilibrium
- Remove – Organic Chemistry (introduction to organic compounds including nomenclature, physical properties, representations of structure, and conformational analysis; structure, nomenclature, stability and an introduction to reactivity; reactions of organic compounds; isomers and stereochemistry)

**4: Learning Outcomes:**

*We have confirmed that the learning outcomes match those in the PCGs.*

If this course is taken as a requirement or an elective in the following first year, University Transfer Certificate programs, the learning outcomes are found in the Program Content Guides available at the Counselling and Advising Service areas.

- University Transfer Arts Certificate
- University Transfer Pathway to Health Sciences Certificate
- University Transfer Science Certificate
- University Transfer Engineering Certificate
- University Transfer Computing Science and Software Systems Certificate

---

**2. Are there any expected costs as a result of this proposal?**

The lab component will need a re-design to fit these different topics. Because of the breathe of the changes substantial PD and AD time have been allocated for faculty to individually prepare themselves to teach the new course. CD time has been secured for lab re-design, development of instructional materials and to ensure re-articulation.
D) **CONSULTATION CHECKLIST** (select all that apply) See Appendix A for consultations guidelines.

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E. Implementation Information

THE FOLLOWING MUST BE COMPLETED FOR NEW PROGRAMS AND NEW COURSES

COMPLETED BY REGISTRAR’S OFFICE:

1. Course Identifier:

   Subject Code: | Course #: | Credits: | Effective Term: 

2. College Code: _______________ Level: _______________
   Division Code: _______________ Major: _______________

COMPLETED BY FINANCE:

3. Which of the following fee structure applies?
   □ UT  □ Applied  □ ABE  □ Differential  □ Cost Recovery  □ IE  □ Contract

4. Finance Org Code: _______________

5. Tuition for all courses: Domestic: _______________ International: _______________

6. College Initiative fee to be charged?  □ Yes  □ No

7. Student Society fees?  □ Yes  □ No

COMPLETED BY INSTITUTIONAL RESEARCH:

8. FTE Divisor: _______________

9. Classification Code: _______________

10. Taxonomy: _______________
E) FINAL REVIEW AND SIGN OFF

Approval verifies that each signatory has carried out the responsibilities assigned under the Curriculum Development and Approval Policy.

1. **As Department Leader I certify that:**
   a. Faculty in the department (and School, if appropriate) have been consulted and approve of the proposed changes; and
   b. All needed consultation has taken place with internal and external stakeholders, including industry and/or community partners.
   c. The curriculum meets institutional standards and the educational needs of students.

   ___________________________________  ___________________________  _____________________
   Name                                    Sign off                      Date

2. **As Dean/Director I certify that:**
   a. Documentation meets the standards of the College, and all policies and procedures have been adhered to; and
   b. Resources required to offer and support the course/program have been assessed. If additional resources are needed, steps to secure the needed resources have been initiated.

   ___________________________________  ___________________________  _____________________
   Name                                    Sign off                      Date
**Curriculum Development Approval Form**  
*** FOR EDUCATION COUNCIL OFFICE USE ***

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<th><strong>CURRICULUM COMMITTEE</strong></th>
<th><strong>Date:</strong> _________________________</th>
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</table>
| **Minor Revision**       | □ Approved as presented, proceed with implementation  
□ Approved with additional minor revisions  
□ Revisions approved by Curriculum Committee Chair, proceed with implementation  
□ Reclassified as a *significant change*  |
| **New Course or Significant Change to a Program/Course** | □ Recommend to EDCO as presented, proceed to EDCO  
□ Recommend to EDCO with additional minor revisions  
□ Revisions approved by Curriculum Committee Chair, proceed to EDCO  
□ Recommend significant changes, return to Department Leader  |
| **New Program**          | □ Recommend to EDCO as presented, proceed to EDCO  
□ Recommend to EDCO with additional minor revisions  
□ Revisions approved by Curriculum Committee Chair, proceed to EDCO  
□ Recommend significant changes, return to Department Leader  |

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<th><strong>Date:</strong> _________________________</th>
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</table>
| **Minor Revision**       | □ Received as Information  
□ Request review of documentation from Curriculum Committee  
□ Reclassified as *major*, return to Curriculum Committee  |
| **New Course or Significant Change to a Program/Course** | □ Approved as presented, proceed with implementation  
□ Approved with additional minor changes  
□ Revisions approved by Curriculum Committee Chair, proceed with implementation  
□ Recommend significant changes, return to Department Leader  |
| **New Program**          | □ Recommend to Board as presented, proceed to Board  
□ Recommend to Board with additional changes  
□ Revisions approved by Curriculum Committee Chair, proceed to Board  
□ Recommend significant changes, return to Dean  |

<table>
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<th><strong>BOARD OF GOVERNORS</strong></th>
<th><strong>Date:</strong> _________________________</th>
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</table>
| **New Credential/Program** | □ Approved, proceed to implementation  
□ Not approved (provide reason)  |

[VCC-CDAF-20150908]
**Course Name:** Chemistry 2  
**Course Number:** CHEM 1223  
**Number of Credits:** 4.0  
**Effective Date:** September 2016

**Course Description:**
The second course of the CHEM 1121/1223 two-course sequence emphasizes the basic principles of chemical kinetics, chemical thermodynamics and organic chemistry. The laboratory in Chemistry 2 allows students to practice techniques learned in Chemistry 1. Students are expected to increase skills in making observations, recording data accurately, interpreting data and generating hypotheses. Both the lab and lecture portions need to be passed in order to pass the course. Chemistry 2 is designed for students seeking a degree or diploma in a field of science, technology, or health, among others. It is suitable as an elective course for General Interest or Arts students.

<table>
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<th>Course History:</th>
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**Course Pre-requisites (if applicable):**
Chemistry 1 (CHEM 1121)

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**
- [x] No  - [ ] Yes (details below):
Instructional Strategies:
The course will be a combination of lectures, discussion, research, and presentation in a classroom and laboratory setting.

Course Learning Outcomes:
At the end of the course the student will be able to
- solve problems in chemical thermodynamics and chemical kinetics involving the physical properties of matter in the solid, liquid and gaseous states.
- describe the structure and reactivity of organic molecules.
- make use of careful measurement techniques and correct handling of data to solve typical problems of General Chemistry.
- work effectively with others in a laboratory situation through team-based learning.

Program Learning Outcomes:
If this course is taken as a requirement or an elective in the following First Year University Transfer Certificate programs, the learning outcomes are found in the Program Content Guides available at the Counselling and Advising Service areas.

University Transfer Arts Certificate
University Transfer Pathway to Health Sciences Certificate
University Transfer Science Certificate
University Transfer Engineering Certificate
University Transfer Computing Science and Software Systems Certificate
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>D</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
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<tbody>
<tr>
<td>Other</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Assignments</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>30</td>
<td>2 midterms (both 15%)</td>
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<tr>
<td>Final Exam</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Lab Work</td>
<td>35</td>
<td>10 labs</td>
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Total 100

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>120</td>
<td>classroom/lab</td>
</tr>
</tbody>
</table>

Total 120

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
General Chemistry (Review energy, acid-base concepts, the equilibrium state)
Thermodynamics: Entropy, Free Energy, and Equilibrium
Chemical Kinetics
Organic Chemistry: Bonding, Structure, and Reactivity

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

Approved by Curriculum Committee: Dec. 15, 2015
Approved by Education Council:
29 November 2015/5 January 2016

PREPARED FOR: Education Council

ISSUE: Changes to Course and Program Learning Outcome language for the Health Care Assistant/ESL program

BACKGROUND:
This proposal, presented by Judy Christie deals with changes to PCG and Course outline language made to align with new Provincial guidelines or requirements. The presentation of this proposal was intended for the December 2015 Education Council meeting. A significant omission from the proposal, dealing with attendance requirements was detected shortly before the EdCo meeting so the proposal was removed from the 8 December 2015 EdCo agenda and the complete proposal returned to Curriculum Committee in 15 December 2015.

DISCUSSION:
The committee asked for clarification on the nature of the changes. Judy Christie replied that “acute care” has been added to the list of possible work venues for graduates. Also, changes to vocabulary have been made to Learning Outcomes such as the word “resident” changing to “client”. Clarification and completeness in some Admission Requirements were also needed. One interesting and difficult topic raised was the interface between the 6 month currency of the CLBPT Admission Requirement and waiting lists for the program that have been as long as three years. Judy Christie stated students accepted with the appropriate CLBPT result have entered the program after waiting longer than six months.

At the December meeting the committee heard and discussed only the attendance requirement. Judy Christie explained the requirement appears in the PCG and to applicable courses. There was discussion about whether or not the statement on attendance should be in all of the course outlines and it was determined that if it is not applicable to a specific course there is no point putting it in.

RECOMMENDATION:
Curriculum Committee recommends Education Council approve the changes to Course and Program Learning Outcome language for the Health Care Assistant/ESL program.

Prepared by:
David Branter
Chair, Curriculum Committee
Curriculum Development Approval Form

Use this form to outline revisions to existing curriculum or to describe the development of new curriculum. Complete one form for each submission to Curriculum Committee.

PROGRAM/COURSE NAME(S): Health Care Assistant/ ESL Certificate – English Language Skills 1, 2 and 3

ANTICIPATED START DATE: September 1, 2016

Curriculum Developer; Judy Christie/ Carrie Leggatt  Title: Department Leaders
School/Centre: School of Health Sciences/School of Access  Department: Continuing Care/English as an Additional Language
E-mail: jchristie@vcc.ca; cleggatt@vcc.ca  Phone/Ext.: Judy: 5129; Carrie 8952

A) DEVELOPMENT TYPE (select all that apply)

☐ NEW PROGRAM  Program has never been offered before at VCC or program has undergone significant and extensive changes to its PCG and/or course outlines, where these changes impact the nature or overall direction of a program.

☐ NEW COURSE(S)  Course has never been offered before at VCC either as a standalone course or as part of a new or existing program; or is a replacement course.
This course replaces: ____________________________

☐ CHANGE TO A PROGRAM AND/OR COURSE  (select all that apply)
☐ Program/Credential
☐ Prior Learning Assessment and Recognition (PLAR)
☐ Program Admission Requirements
☐ Program Learning Outcomes (Indicate outcome number(s): ________)
☐ Grading system (at variance with policy C.1.1 Course/Program Grading)
☐ Program duration/maximum allowable time for completion
☐ Program GPA requirements
☐ Program/Course Credit Hours
☐ Course Evaluation Plan (at variance with policy C.1.1 Course/Program Grading)
☐ Course sequencing (that impacts the year the course is offered in)
☐ Other: ____________________________

X MINOR REVISION TO A PROGRAM AND/OR COURSE  (select all that apply)
X Program/Course Description
X Program Purpose
☐ Recommended Student Characteristics
☐ Course Sequencing (that does not impact year the course is offered in)
☐ Course Name/Number
☐ Course Pre-requisite(s)/Co-requisite(s)
X Course Learning Outcomes
☐ Course Evaluation Plan (within policy C.1.1 Course/Program Grading)
☐ Instructional Delivery Mode
Curriculum Development Approval Form

☐ Language (e.g., Typos, Spelling Errors, etc.)
☐ Other: _______________________

B) ATTACHED DOCUMENTATION

☐ Program Content Guide

☐ Course Outline(s)
   All new, revised or replacement courses must be approved in advance with the Registrar’s Office.

   Course name and number: English Language Skills 1: ELSK 1

   Course name and number: English Language Skills 2: ELSK 2

   Course name and number: English Language Skills 3: ELSK 3

   (Add additional lines if required)

C) RATIONALE

1. For revisions to existing courses or programs, provide an explanation of the change(s) being requested and reason(s) for making the change.
   For new courses, provide a rationale for developing the course.

There is a new provincial Health Care Assistant curriculum that is to be implemented in September 2016. The new curriculum has an updated Program Purpose that stated that graduates are prepared to work in a variety of settings, including acute care. The revised program has minor revisions to the program goal (to include practice settings of acute care) and revised language as per this provincial curriculum (for example “resident” has been changed to “client”). The course descriptions and course learning outcomes have been revised to reflect this language.

2. Are there any expected costs as a result of this proposal?

   No
Curriculum Development Approval Form

D) CONSULTATION CHECKLIST (select all that apply) See Appendix A for consultations guidelines.

<table>
<thead>
<tr>
<th>INTERNAL CONSULTATIONS</th>
<th>FEEDBACK (include date received)</th>
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<tbody>
<tr>
<td>Faculty/Department</td>
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<td>Department Support Staff</td>
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<td>Other Department(s)</td>
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<table>
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<tr>
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<td>Assessment Centre</td>
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<td>Centre for Instructional Development</td>
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<td>Counselling &amp; Disability Services (CDS)</td>
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<td>Financial Aid</td>
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<tr>
<td>Library</td>
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<td>Registrar’s Office / Advising / Recruitment</td>
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<td>Related additional Student Services</td>
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<td>VCC International and Immigrant Education</td>
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<tr>
<td>Institutional Research (IR)</td>
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<td>Safety and Security</td>
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<table>
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<tr>
<td>PAC/CEG</td>
<td>To be informed</td>
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<tr>
<td>Affiliation, Articulation and/or Accreditation bodies</td>
<td>Oct. 21, 22, 2015</td>
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<td>PSIPS</td>
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<td>DQAB</td>
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</table>
Curriculum Development Approval Form

E. Implementation Information

THE FOLLOWING MUST BE COMPLETED FOR NEW PROGRAMS AND NEW COURSES

[COMPLETED BY REGISTRAR'S OFFICE:]

1. Course Identifier:

<table>
<thead>
<tr>
<th>Subject Code:</th>
<th>Course #:</th>
<th>Credits:</th>
<th>Effective Term:</th>
</tr>
</thead>
</table>

2. College Code: ______________ Level: ______________
   Division Code: ______________ Major: ______________

[COMPLETED BY FINANCE:]

3. Which of the following fee structure applies?
   □ UT    □ Applied    □ ABE    □ Differential    □ Cost Recovery    □ IE    □ Contract

4. Finance Org Code: __________________

5. Tuition for all courses. Domestic: ______________ International: ______________

6. College Initiative fee to be charged? □ Yes    □ No

7. Student Society fees? □ Yes    □ No

[COMPLETED BY INSTITUTIONAL RESEARCH:]

8. FTE Divisor: __________________

9. Classification Code: __________________

10. Taxonomy: __________________
Curriculum Development Approval Form

E) FINAL REVIEW AND SIGN OFF

Approval verifies that each signatory has carried out the responsibilities assigned under the Curriculum Development and Approval Policy.

1. As Department Leader I certify that:
   a. Faculty in the department (and School, if appropriate) have been consulted and approve of the proposed changes; and
   b. All needed consultation has taken place with internal and external stakeholders, including industry and/or community partners.
   c. The curriculum meets institutional standards and the educational needs of students.

   Carrie Leggatt  Nov. 10, 2015
   Name  Sign off  Date

2. As Dean/Director I certify that:
   a. Documentation meets the standards of the College, and all policies and procedures have been adhered to; and
   b. Resources required to offer and support the course/program have been assessed. If additional resources are needed, steps to secure the needed resources have been initiated.

   Daniel M.  Nov. 10, 2015
   Name  Sign off  Date
Curriculum Development Approval Form

*** FOR EDUCATION COUNCIL OFFICE USE ***

**CURRICULUM COMMITTEE**

Minor Revision
- [ ] Approved as presented, proceed with implementation
- [ ] Approved with additional minor revisions
- [ ] Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: __________
- [ ] Reclassified as a significant change

New Course or Significant Change to a Program/Course
- [ ] Recommend to EDCO as presented, proceed to EDCO
- [ ] Recommend to EDCO with additional minor revisions
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: __________
  - [ ] Recommend significant changes, return to Department Leader

New Program
- [ ] Recommend to EDCO as presented, proceed to EDCO
- [ ] Recommend to EDCO with additional minor revisions
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to EDCO  Date: __________
  - [ ] Recommend significant changes, return to Department Leader

**EDUCATION COUNCIL**

Minor Revision
- [ ] Received as information
- [ ] Request review of documentation from Curriculum Committee
- [ ] Reclassified as major, return to Curriculum Committee

New Course or Significant Change to a Program/Course
- [ ] Approved as presented, proceed with implementation
- [ ] Approved with additional minor changes
  - [ ] Revisions approved by Curriculum Committee Chair, proceed with implementation  Date: __________
  - [ ] Recommend significant changes, return to Department Leader

New Program
- [ ] Recommend to Board as presented, proceed to Board
- [ ] Recommend to Board with additional changes
  - [ ] Revisions approved by Curriculum Committee Chair, proceed to Board  Date: __________
  - [ ] Recommend significant changes, return to Dean

**BOARD OF GOVERNORS**

New Credential/Program
- [ ] Approved, proceed to implementation
- [ ] Not approved (provide reason) ________________________________________________
Health Care Assistant/ESL Certificate

Program Content Guide

Effective Date: September 1, 2016
Goal
The Health Care Assistant/English as a Second Language (HCA/ESL) Program is designed to provide students with opportunities to develop the knowledge, skills and attitudes necessary to function effectively as front-line care-givers and respected members of the healthcare team. Under the direction and supervision of a health professional, graduates provide person-centred care aimed at promoting and maintaining the physical, emotional, cognitive, and social well-being of clients.

Upon completion of the program, graduates are prepared to work in a variety of health care settings, including home support, assisted living, residential/complex care, special care units, other home and community care settings, and acute care.

Admission Requirements

- All BC Health Care Assistant program applicants are required to demonstrate English language proficiency as set by the BC Care Aide and Community Health Worker Registry. VCC will adhere to the entry requirements set out by the Registry at: http://www.cachwr.bc.ca/getattachment/Educators/English-Language-Competency_HCA-Program-Entry.pdf.aspx. Please note the VCC HCA/ESL program requires higher Canadian Language Benchmark Placement Test (CLBPT) scores for admission than are listed in the Registry document. The CLBPT must have been completed within the last six months with a Listening 6, Speaking 6, Reading 6 and Writing 5.
- Standard First Aid (Red Cross or St. John Ambulance) including CPR level C or Health Care Provider CPR.
- BC Food Safe Certificate Level 1.

Upon Acceptance:

- A Criminal Record Check (CRC) is required in accordance with the Criminal Records Review Act through the BC Ministry of Justice.
- Submission of a negative tuberculosis (TB) skin test. If the TB skin test is positive, proof of a negative TB chest x-ray is required.
- A completed immunization history (forms and more detail obtained per Registrar’s Office)
- Immunizations in the following are strongly recommended, and may be required for practice placement in the program:
  - Diphtheria/Tetanus
  - Pertussis
  - Polio
  - Measles, Mumps, and Rubella
  - Varicella (Chicken Pox)
  - Hepatitis B
  - Influenza (Flu vaccine) – required annually
- Regulations stipulate that a properly fitted respiratory mask must be used when providing care to patients with suspected, known, or probable cases of acute respiratory infections. The respiratory mask must be a N95 respirator that is individually fitted by a trained and certified
person. This individual mask fitting should be done just prior to beginning your program and is good for one year and must be performed annually. The original certificate must be presented to your program during the first week of classes. Please view online list of approved fit test service providers. Fit Test Service Providers

Prior Learning Assessment & Recognition (PLAR)

Not available at this time.

Program Duration

The Health Care Assistant/ ESL Program is forty weeks in length.

Program Learning Outcomes

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.

Instructional Activities, Design and Delivery Mode

The program is divided into three levels. Each level consists of theory, laboratory practice, and/or clinical experience. The theory component is delivered through discussion groups, student presentations, lectures, online activities, demonstrations and guest speakers. Students apply the theory component in the laboratory and clinical settings. Continuous language support for learners with an additional language is provided throughout the program as they acquire the skills of a Health Care Assistant.
Level One (16 weeks) is taught primarily in the classroom, laboratory, and intermediate care clinical, and provides a basic framework for the caregiving practice. The concept of caring is the focus. Students are introduced to the continuing care setting in this level.

Level Two (15 weeks) builds on the basic knowledge and skills developed in Level One. Focus is on special areas of care such as the person with dementia and home management. Clinical practice in a special care unit is provided.

Level Three (9 weeks) consists of clinical experience in a complex care facility and a practicum in a community setting.

Evaluation of Student Learning

Theory courses are evaluated by written exams, assignments, and/or completion of a journal. Laboratory and clinical performance is assessed by instructor observations of students in work experience situations. All courses are evaluated consistent with the College Grading System.

Students must achieve at least a C+ (64%) in every course in order to proceed to the next level, or to graduate from the program.

Attendance of all classes and laboratory experiences is required in order to truly understand and master the theoretical and practical components behind the Health Care Assistant role. Per the BC Care Aide and Community Health Worker Registry students may not miss more than 15% of scheduled classroom, laboratory and/or clinical experiences. Where students exceed this maximum, the College may withdraw the student from the program. Additionally the BC Care Aide and Community Health Worker Registry require students to demonstrate 100% attendance of the program’s community practicum experience.

Recommended Characteristics of Students

- Ability to work under direction and to act with initiative as a member of the health care team.
- A genuine concern for the well-being of others.
- Patience and perseverance.
- Flexibility, trustworthiness, and dependability.
- Maturity.
- Ability to communicate effectively in both written and spoken English.
- High standard of personal hygiene and grooming.
- Ability to use a problem-solving approach.
- Physical stamina.
- No sensitivity or allergy to latex.
- Ability to work in environments where standards may be different from one’s own.
## Courses

<table>
<thead>
<tr>
<th>Term</th>
<th>Course #</th>
<th>Course Name and Description</th>
<th>Credits</th>
</tr>
</thead>
</table>
| 1    | ELSK 0701  | **English Language Skills 1**  
This course provides ongoing English language support for learners of an additional language as they acquire the skills of a Health Care Assistant. To ensure learner success, this course focuses on development of study skills, reading skills, writing skills and strategies for vocabulary acquisition to enable learners to understand and discuss course concepts, materials, and procedures accurately. This course develops interpersonal professional communication skills in class and in clinical with an emphasis on clear and appropriate speaking and listening. It also includes developing an awareness of workplace expectations, culture and appropriate language. Reading, writing and interactive communication (listening and speaking) skills are taught concurrently and in conjunction with topics in the Health Care Assistant Level 1 curriculum. Upon completion of English Language Skills 1, learners have the communication skills required to provide personal care for clients in a complex care setting and to interact with clients and health team members. | 5.0     |
| 1    | HRCA 1103  | **Lifestyle & Choices**  
This course introduces students to a holistic concept of health and the components of a health-enhancing lifestyle. Students will be invited to reflect on their own experience of health, recognizing challenges and resources that can impact lifestyle choices. Students will be introduced to a model that can be applied in other courses to understand the multi-faceted aspects of health and healing. | 1.0     |
| 1    | HRCA 1105  | **Interpersonal Communications**  
This course focuses on the development of self-awareness, increased understanding of others and development of effective interpersonal communication skills that can be used in a variety of care-giving contexts. Students will be encouraged to become more aware of the impact of their own communication choices and patterns. They will have opportunity to develop and use communication techniques that demonstrate personal awareness, respect and active listening skills. | 2.0     |
| 1    | HRCA 1120  | **Introduction to Practice**  
This course provides an introduction to the role of the Health Care Assistant within the British Columbia health care system. Students will be introduced to the health care team and the roles and functions of Health Care Assistants within the team. Students will also have opportunities to develop self-reflective skills required for competent practice and will be introduced to effective job-finding approaches. | 1.0     |
| 1    | HRCA 1122  | **Personal Care & Assistance 1**  
This practical course offers students the opportunity to acquire personal care and assistance skills within the parameters of the Health Care Assistant role. The course is comprised of class and supervised laboratory experiences which assist the student to integrate theory from other courses to develop care-giver skills that maintain and promote the comfort, safety and independence | 2.0     |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRCA 1131</td>
<td>Health and Healing</td>
<td>This course provides students with the opportunity to develop a theoretical framework for practice. Students will be introduced to the philosophical values and theoretical understandings that provide a foundation for competent practice as a Health Care Assistant. The course focuses on concepts of caring and person-centred care; basic human needs and human development; family, culture and diversity as they relate to health and healing. Students will also be introduced to a problem-solving model that will be critical to their practice.</td>
<td>3.0</td>
</tr>
<tr>
<td>HRCA 1135</td>
<td>Clinical 1</td>
<td>This supervised practical experience provides students with an opportunity to apply knowledge and skills learned in the other level one courses in the Health Care Assistant/ESL program with individuals in a multi-level or complex care setting. Opportunity will be provided for students to gain expertise and confidence with the role of the Health Care Assistant within a residential care facility. During this course students’ skills and application of knowledge will be assessed.</td>
<td>2.0</td>
</tr>
<tr>
<td>ELSK 0702</td>
<td>English Language Skills 2</td>
<td>This course builds upon the communication skills of a Health Care Assistant developed in English Language Skills 1. Strategies to develop learners' acquisition of a professional vocabulary, reading skills, writing skills and oral presentation skills are emphasized. The learner's interpersonal communication skills are enhanced while providing care for clients in a Special Care setting. Reading, writing, and interactive communication (listening &amp; speaking) skills are taught concurrently and in conjunction with topics in the Health Care Assistant curriculum. Upon completion of English Language Skills 2, learners have the communication skills required to provide personal care for clients in a Special Care setting, and to interact with clients and health team members.</td>
<td>4.0</td>
</tr>
<tr>
<td>HRCA 1224</td>
<td>Cognitive or Mental Challenges</td>
<td>This course builds on content from other courses to assist students to explore concepts and care-giving approaches that will allow them to work effectively with individuals experiencing cognitive or mental challenges. The emphasis in this course is on supporting clients with dementia, recognizing responsive behaviours and identifying person-centred intervention strategies.</td>
<td>2.0</td>
</tr>
<tr>
<td>HRCA 1226</td>
<td>Common Health Challenges</td>
<td>This course introduces students to the normal structure and function of the human body and normal bodily changes associated with aging. Students will explore common challenges to health and healing in relation to each body system. Students will also be encouraged to explore person-centred practice as it relates to the common challenges to health and, in particular, to end-of-life care.</td>
<td>4.0</td>
</tr>
<tr>
<td>HRCA 1227</td>
<td>Clinical 2</td>
<td>This supervised practical experience provides students with an opportunity to apply knowledge and skills from all other courses in the program and work with individuals experiencing cognitive challenges in a multi-level or complex care setting</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
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<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>HRCA 1232</td>
<td>Personal Care &amp; Assistance 2</td>
<td>This practical course offers students the opportunity to acquire additional personal care and assistance skills within the parameters of the Health Care Assistant role. The course is comprised of class and supervised laboratory experiences which assist the student to integrate theory from other courses to further develop care-giver skills that maintain and promote the comfort, safety and independence of individuals in acute care and diverse contexts.</td>
</tr>
<tr>
<td>3</td>
<td>ELSK 0703</td>
<td>English Language Skills 3</td>
<td>This course continues to develop the English language skills of learners of an additional language in the Health Care Assistant/ESL Program and builds on the skills learned in English Language Skills 2. It focuses especially on the listening and speaking skills required in order to communicate effectively as a Health Care Assistant in an extended care setting, and on the Job Search Skills required to enter the workforce as a Health Care Assistant. Reading, writing, and vocabulary skills will continue to be developed, especially as they apply to the workplace. Reading, writing, and interactive communication (listening &amp; speaking) skills are taught concurrently and in conjunction with situations and topics in Health Care Assistant Clinical 3. Upon completion of English Language Skills 3, learners have the communication skills required to provide personal care for clients in an extended care setting and to interact with clients and members of the health team.</td>
</tr>
<tr>
<td>3</td>
<td>HRCA 1329</td>
<td>Clinical 3</td>
<td>This supervised practical experience provides students with further opportunity to apply knowledge and skills learned in the other courses in the Health Care Assistant/ESL program with individuals in a multi-level or complex care setting. Opportunity will be provided for students to increase their expertise in organizational ability and confidence with the role of the Health Care Assistant within a residential facility. During this course students' skills and application of knowledge will be assessed.</td>
</tr>
<tr>
<td>3</td>
<td>HRCA 1328</td>
<td>Community Practicum</td>
<td>This practical course provides students with an opportunity to apply knowledge and skills from all other courses with individuals and families in a community setting. Opportunity will be provided for students to become more familiar with the role of the Health Care Assistant within a Home Support Agency, Assisted Living Facility, and/or a Group Home, and to gain abilities that will prepare graduates for employment in these settings. It is important that students understand the philosophy of community care settings and its emphasis on client choice and independence.</td>
</tr>
</tbody>
</table>

Total Program Credits: 40.0
Transcript of Achievement

An evaluation of the learning outcomes of each student is prepared by the instructor. This evaluation is by a combination of assignments, presentations, projects, theory exams and/or practical exams.

All evaluations at completion of semesters are reported to the Student Records Department. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

Letter Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
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<tbody>
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<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
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<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
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<td>3.00</td>
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<tr>
<td>B-</td>
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<tr>
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</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
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<td>Failing grade</td>
<td>0.00</td>
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<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
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<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
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</tr>
<tr>
<td>R</td>
<td>Audit. No credit</td>
<td>N/A</td>
</tr>
<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as “F” if not fulfilled</td>
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<td>IP</td>
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<td>@</td>
<td>Non-payment of fees</td>
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<td>TC</td>
<td>Transfer credit</td>
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Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.

2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.

3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
VCC Education and Education Support Policies

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This document is not to be copied or transmitted in any form without the consent of VCC ©
Course Name: Lifestyle and Choices

Course Number: HRCA 1103  
Number of Credits: 1.0  
Effective Date: Sep 1, 2016

Course Description:
This course introduces students to a holistic concept of health and the components of a health-enhancing lifestyle. Students will be invited to reflect on their own experience of health, recognizing challenges and resources that can impact lifestyle choices. Students will be introduced to a model that can be applied in other courses to understand the multi-faceted aspects of health and healing.

School or Centre: Health Sciences

Year of Study: 1st Year Post-secondary

Course History: Revised Course

Course Pre-requisites (if applicable):
Admission to the Health Care Assistant/ESL program

Course Co-requisites (if applicable):
ELSK 0701; HRCA 1105; HRCA 1120; HRCA 1122; HRCA 1131

PLAR (Prior Learning Assessment & Recognition)  
☑️ No ☐ Yes (details below):
Instructional Strategies:

- Lecture
- Variety of group activities
- Online activities

Course Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Discuss the interrelationship of physical, social, cognitive, emotional and spiritual dimensions and the Determinants of Health.

2. Display an understanding of how lifestyle choices and behaviours contribute to physical, psychological, social, cognitive and spiritual health.

3. Display an understanding of the complexity of the change process in relation to health promotion.

Program Learning Outcomes:

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

3. Provide care and assistance for clients experiencing complex health challenges.

4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.

5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.

6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.

7. Provide personal care and assistance in a safe, competent and organized manner.

8. Recognize and respond to own self-development, learning and health enhancement needs.

9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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</thead>
<tbody>
<tr>
<td>Letter Grades</td>
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<td>c+ = 64%</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>30</td>
<td>Written assignment</td>
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<tr>
<td>Assignments</td>
<td>35</td>
<td>Written assignment</td>
</tr>
<tr>
<td>Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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</table>

**Total 100**

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
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</table>

**Total 30**

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
### Course Topics:

1. Understanding Health
2. Components of Health
3. Lifestyle Change

---

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<table>
<thead>
<tr>
<th>Approved by Curriculum Committee:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 15, 2015</td>
<td></td>
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</table>

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Course Name: Interpersonal Communications

Course Number: HRCA 1105
Number of Credits: 2.0
Effective Date: Sep 1, 2016

Course History:
Revised Course

School or Centre: Health Sciences

Year of Study: 1st Year Post-secondary

Course Description:
This course focuses on the development of self-awareness, increased understanding of others and development of effective interpersonal communication skills that can be used in a variety of care-giving contexts. Students will be encouraged to become more aware of the impact of their own communication choices and patterns. They will have opportunity to develop and use communication techniques that demonstrate personal awareness, respect and active listening skills.

Course Pre-requisites (if applicable):
Admission to the Health Care Assistant/ESL program

Course Co-requisites (if applicable):
ELSK 0701; HCA 1103; HCA 1120; HCA 1122; HCA 1131;

PLAR (Prior Learning Assessment & Recognition)

☐ No ☐ Yes (details below):
Instructional Strategies:
Lecture
Variety of group activities
Online activities

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Identify the characteristics and qualities of effective interpersonal communications.

2. Discuss the interrelationship between self-awareness, self-esteem, and perception as these relate to communication choices and patterns.

3. Demonstrate effective, caring interpersonal communications with clients, colleagues and others:

4. Apply self-reflection, and self-appraisal processes in order to increase own effectiveness in interpersonal contexts.

Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

3. Provide care and assistance for clients experiencing complex health challenges.

4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.

5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.

6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.

7. Provide personal care and assistance in a safe, competent and organized manner.

8. Recognize and respond to own self-development, learning and health enhancement needs.

9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
**Components and Weighting of the Assessment/Evaluation Plan:**

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<tr>
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<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>30</td>
<td>Multiple choice exam</td>
</tr>
<tr>
<td>Final Exam</td>
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<td>Multiple choice exam</td>
</tr>
<tr>
<td>Assignments</td>
<td>35</td>
<td>Written assignment</td>
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<tr>
<td>Assignments</td>
<td></td>
<td>satisfactory written reflective journal (as per rubric)</td>
</tr>
<tr>
<td>Participation</td>
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<td>Mandatory attendance as per department requirements</td>
</tr>
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**Total** 100

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**Learning Environment/Type**

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<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 60

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**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Introduction to Interpersonal Communication.
2. Knowledge of Self.
4. Responding to Others.
5. Conflict Management and Resolution.

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</tr>
</thead>
<tbody>
<tr>
<td>Dec. 15, 2015</td>
<td></td>
</tr>
</tbody>
</table>
# COURSE OUTLINE

**Course Name:** Introduction to Practice

**Course Number:** HRCA 1120  
**Number of Credits:** 1.0  
**Effective Date:** Sep 1, 2016

**Course Description:**
This course provides an introduction to the role of the Health Care Assistant within the British Columbia health care system. Students will be introduced to the health care team and the roles and functions of Health Care Assistants within the team. Students will also have opportunities to develop self-reflective skills required for competent practice and will be introduced to effective job-finding approaches.

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Year of Study:</th>
</tr>
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<tbody>
<tr>
<td>Health Sciences</td>
<td>1st Year Post-secondary</td>
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<table>
<thead>
<tr>
<th>Course History:</th>
<th>Name of Replacing Course (if applicable):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revised Course</td>
<td></td>
</tr>
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</table>

**Course Pre-requisites (if applicable):**
Admission to the Health Care Assistant/ESL program

**Course Co-requisites (if applicable):**
ELSK 0701; HRCA 1103; HRCA 1105; HRCA 1122; HRCA 1131

**PLAR (Prior Learning Assessment & Recognition)**
- Yes (details below):
- No
Instructional Strategies:
Lecture
Variety of group activities
Online activities

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Display an understanding of the roles and responsibilities of Health Care Assistants within the health care system in British Columbia.
2. Contribute to the effective functioning of the health care team.
3. Function in a responsible, accountable fashion recognizing legal and ethical parameters of the Health Care Assistant role.
4. Apply self-reflection and self-appraisal processes in order to recognize and respond to own self-development needs as a care provider:
5. Confidently conduct a job-search process:

Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:
1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
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<td>Written assignment</td>
</tr>
<tr>
<td>Assignments</td>
<td>35</td>
<td>Written assignment</td>
</tr>
<tr>
<td>Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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Total: 100%

Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Total: 30

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Workplace Settings and Contexts.

2. Team work in Healthcare Settings.

3. Legal and Ethical Issues.

4. Professional Approaches to Practice.

5. Self-reflective Practice.


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FOR COMMITTEE USE ONLY

| Approved by Curriculum Committee: | Dec. 15, 2015 | Approved by Education Council: |   |
Course Name: Personal Care and Assistance 1

Course Number: HRCA 1122

Number of Credits: 2.0

Effective Date: Sep 1, 2016

Course Description:
This practical course offers students the opportunity to acquire personal care and assistance skills within the parameters of the Health Care Assistant role. The course is comprised of class and supervised laboratory experiences which assist the student to integrate theory from other courses to develop care-giver skills that maintain and promote the comfort, safety and independence of individuals in community and facility contexts.

School or Centre: Health Sciences

Year of Study: 1st Year Post-secondary

Course History: Revised Course

Course Pre-requisites (if applicable):
Admission to the Health Care Assistant/ESL program

Course Co-requisites (if applicable):
ELSK 0701; HRCA 1103; HRCA 1105; HRCA 1120; HRCA 1131

PLAR (Prior Learning Assessment & Recognition) ☑ No ☐ Yes (details below):
Instructional Strategies:

Lecture
Variety of Group Activities
Demonstrations of skills
Lab activities
Online activities

Course Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Perform personal care skills in an organized manner ensuring the comfort and appropriate independence of the client.
2. Apply an informed problem-solving process to the provision of care and assistance.
3. Provide personal care and assistance within the parameters of the Health Care Assistant.
4. Provide care and assistance in ways that maintain safety for self and others in a variety of contexts.

Program Learning Outcomes:

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
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6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
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### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
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<td>c+ = 64% + satisfactory integration excercise</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>35</td>
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<td>Final Exam</td>
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<td>Multiple choice exam</td>
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<tr>
<td>Assignments</td>
<td>30</td>
<td>Written assignment</td>
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<tr>
<td>Lab Work</td>
<td></td>
<td>Must demonstrate mastery of skills to a satisfactory level in an integration exercise in nursing lab (rubric).</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>Mandatory attendance as per department requirements</td>
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| Total                  | 100        |

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
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<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>40</td>
<td></td>
</tr>
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</table>

| Total                  | 60                       |

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Problem-solving when carrying out care-giving procedures.
3. Promoting comfort and rest.
4. Promoting personal hygiene.
5. Moving, positioning and transferring a client.
7. Promoting exercise and activity.
8. Promoting healthy nutrition and fluid intake.

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<td>Dec. 15, 2015</td>
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<td>Course Name:</td>
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<tr>
<td>Effective Date:</td>
<td>Sep 1, 2016</td>
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**Course Description:**

This course provides students with the opportunity to develop a theoretical framework for practice. Students will be introduced to the philosophical values and theoretical understandings that provide a foundation for competent practice as a Health Care Assistant. The course focuses on concepts of caring and person-centred care; basic human needs and human development; family, culture and diversity as they relate to health and healing. Students will also be introduced to a problem-solving model that will be critical to their practice.

<table>
<thead>
<tr>
<th>School or Centre:</th>
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<tr>
<td>Year of Study:</td>
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**Course History:**

Revised Course

**Course Pre-requisites (if applicable):**

Admission to the Health Care Assistant/ESL program

**Course Co-requisites (if applicable):**

ELSK 0701; HRCA 1103; HRCA 1105; HRCA 1120; HRCA 1122

**PLAR (Prior Learning Assessment & Recognition):**

☑ No ☐ Yes (details below):
**Instructional Strategies:**
- Lecture
- Variety of group activities
- Online activities

---

**Course Learning Outcomes:**
Upon successful completion of this course, students will be able to:

1. Display an understanding of person-centred care that recognizes and respects the uniqueness of each individual.

2. Discuss basic human needs and common characteristics of human development as these concepts relate to person-centred care.

3. Use an informed problem-solving approach to provide care and service.

4. Contribute to the safety and protection of self and others within a variety of work environments.

5. Display an understanding of the role of family, culture, diversity and life experience in aging, health and healing.

---

**Program Learning Outcomes:**
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

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<td>c+ = 64% + satisfactory journal assignment</td>
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Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
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<tbody>
<tr>
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<td>Multiple choice exam</td>
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<tr>
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Total 100

Learning Environment/Type

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<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>90</td>
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</tr>
</tbody>
</table>

Total 90

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

2. Basic Human Needs.
3. Human Development.
4. Multiculturalism and Diversity.
5. Critical Thinking and Problem-Solving.
6. Protection and Safety in Health and Healing.

VCC Education and Education Support Policies

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FOR COMMITTEE USE ONLY

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<thead>
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<th>Approved by Education Council:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 15, 2015</td>
<td></td>
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</tbody>
</table>
Course Name: Clinical 1

Course Number: HRCA 1135
Number of Credits: 2.0
Effective Date: Sept 1, 2016

Course Description:
This supervised practical experience provides students with an opportunity to apply knowledge and skills learned in the other level one courses in the Health Care Assistant/ESL program with individuals in a multi-level or complex care setting. Opportunity will be provided for students to gain expertise and confidence with the role of the Health Care Assistant within a residential care facility. During this course students’ skills and application of knowledge will be assessed.

School or Centre: Health Sciences
Year of Study: 1st Year Post-secondary

Course History:
Revised Course

Course Pre-requisites (if applicable):
Completion of the following courses in the Health Care Assistant/ESL program: HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131,

Course Co-requisites (if applicable):
ELSK 0701

PLAR (Prior Learning Assessment & Recognition)
☒ No ☐ Yes (details below):
Course Learning Outcomes:

Upon successful completion of this course, students will be able to:
1. Provide person-centred care and assistance at a beginning level, that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach at a beginning level, to provide care and assistance for two dependent clients. The care provided promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance at a beginning level, for clients experiencing complex health challenges.
4. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
5. Communicate clearly, accurately and in sensitive ways with clients and families.
6. Provide personal care and assistance at a beginning level, in a safe, competent and organized manner.
7. Recognize and respond to own self-development, learning and health enhancement needs.
8. Perform the care-giver role in a reflective, responsible, accountable and professional manner.

Program Learning Outcomes:

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:
1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
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<tr>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Examination</td>
<td>100</td>
<td>Practical evaluation of performance as satisfactory or unsatisfactory as per Learning Outcomes plus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>satisfactory completion of skills check-list</td>
</tr>
<tr>
<td>Participation</td>
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<td>Mandatory attendance as per BC Care Aide Registry requirements</td>
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Total 100

## Learning Environment/Type

<table>
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<tbody>
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</tbody>
</table>

Total 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

1. Performance of skills
2. Medical asepsis
3. Body mechanics
4. Safety
5. Organization
6. Communication
7. Responsibility
8. Professional behavior

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FOR COMMITTEE USE ONLY

Approved by Curriculum Committee: Dec. 15, 2015

Approved by Education Council:  

## Course Outline

### Course Name: Cognitive or Mental Challenges

| Course Number: | HRCA 1224 | Number of Credits: | 2.0 | Effective Date: | Sep 1, 2016 |

### Course Description:

This course builds on content from other courses to assist students to explore concepts and care-giving approaches that will allow them to work effectively with individuals experiencing cognitive or mental challenges. The emphasis in this course is on supporting clients with dementia, recognizing responsive behaviours and identifying person-centred intervention strategies.

### Course Pre-requisites (if applicable):

Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135

### Course Co-requisites (if applicable):

ELSK 0702; HRCA 1226; HRCA 1232

### PLAR (Prior Learning Assessment & Recognition)

☑ No ☐ Yes (details below):
Instructional Strategies:
Lecture
Variety of group activities
Online activities

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Describe ways to organize, administer and evaluate person-centred care and assistance for clients experiencing cognitive health challenges (dementia).

2. Describe ways to organize, administer and evaluate person-centred care and assistance for clients experiencing mental health challenges (other than dementia).

3. Demonstrate an understanding of effective approaches to disruptive or abusive behaviours.

Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

3. Provide care and assistance for clients experiencing complex health challenges.

4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.

5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.

6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.

7. Provide personal care and assistance in a safe, competent and organized manner.

8. Recognize and respond to own self-development, learning and health enhancement needs.

9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Evaluation/Grading System

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<tr>
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<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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</thead>
<tbody>
<tr>
<td>Letter Grades</td>
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<td>c+ =64%</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>30</td>
<td>written assignment</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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<tr>
<td>Final Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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Total 100

### Learning Environment/Type

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<th>Hours Per Instruction Type</th>
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<tr>
<td>L - Classroom</td>
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Total 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
<table>
<thead>
<tr>
<th>Course Topics:</th>
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<tbody>
<tr>
<td>2. Abuse.</td>
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</tbody>
</table>
## Course Name:
Common Health Challenges

### Course Number:
HRCA 1226  
**Number of Credits:** 4.0  
**Effective Date:** Sep 1, 2016

### Course Description:
This course introduces students to the normal structure and function of the human body and normal bodily changes associated with aging. Students will explore common challenges to health and healing in relation to each body system. Students will also be encouraged to explore person-centred practice as it relates to the common challenges to health and, in particular, to end-of-life care.

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Year of Study:</th>
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<tbody>
<tr>
<td>Health Sciences</td>
<td>1st Year Post-secondary</td>
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</table>

### Course History:
Revised Course

### Course Pre-requisites (if applicable):
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135

### Course Co-requisites (if applicable):
ELSK 0702; HRCA 1224; HRCA 1232

### PLAR (Prior Learning Assessment & Recognition)

- [ ] No
- [ ] Yes (details below):
**Instructional Strategies:**
Lecture
Variety of group activities
Online activities

**Course Learning Outcomes:**
Upon successful completion of this course, students will be able to:

1. Display an understanding of the structure and function of the human body and normal changes associated with aging.

2. Display a sound understanding of common challenges to health and healing.

3. Discuss nutrition as it relates to healing.

4. Describe ways to organize, administer and evaluate person-centred care and service for clients experiencing common health challenges.

5. Demonstrate an understanding of the components of person-centred end-of-life care for clients and families.

**Program Learning Outcomes:**
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

3. Provide care and assistance for clients experiencing complex health challenges.

4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.

5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.

6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.

7. Provide personal care and assistance in a safe, competent and organized manner.

8. Recognize and respond to own self-development, learning and health enhancement needs.

9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Evaluation/Grading System

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</tr>
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<tbody>
<tr>
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<td>c+ =64%</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
<th>Percentage</th>
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<td>Quizzes/Tests</td>
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<tr>
<td>Final Exam</td>
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<td>Meal Planning assignment</td>
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<td>Assignments</td>
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<td>Group Presentation</td>
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| Total                     | 100        |

### Learning Environment/Type

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<tr>
<th>Instruction Type</th>
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<tbody>
<tr>
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<td>120</td>
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</table>

| Total            | 120                       |

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Medical Terminology.

2. Structure and function of the human body.

3. Challenges to health and healing.


5. End-of-Life Care.

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</thead>
</table>
### Course Name:
Clinical 2

| Course Number: | HRCA 1227 | Number of Credits: 2.0 | Effective Date: Sept 1, 2016 |

**Course Description:**
This supervised practical experience provides students with an opportunity to apply knowledge and skills from all other courses in the program and work with individuals experiencing cognitive challenges in a multi-level or complex care setting.

### School or Centre:
Health Sciences

### Year of Study:
1st Year Post-secondary

### Course History:
Revised Course

### Course Pre-requisites (if applicable):
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135, HRCA 1224, HRCA 1226, HRCA 1232

### Course Co-requisites (if applicable):
ELSK 0702

### PLAR (Prior Learning Assessment & Recognition)
☑ No ☐ Yes (details below):
**Instructional Strategies:**
Clinical instruction, supervision and evaluation.
Online activities

---

**Course Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance for two clients experiencing cognitive and/or mental health challenges. The care provided promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance at a beginning level for two clients experiencing cognitive and/or mental health challenges.
4. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
5. Communicate clearly and in sensitive ways with clients experiencing cognitive and/or mental health challenges.
6. Provide personal care and assistance in a safe, competent and organized manner.
7. Recognize and respond to own self-development, learning and health enhancement needs.
8. Perform the care-giver role in a reflective, responsible, accountable and professional manner.

---

**Program Learning Outcomes:**

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
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<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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<td>Satisfactory</td>
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**Components and Weighting of the Assessment/Evaluation Plan:**

<table>
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<tr>
<th>Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Clinical Examination</td>
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<td>-</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td></td>
</tr>
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</table>

**Evaluation Plan**

(Provide a brief explanation for each component especially if value exceeds 35%):

- Practical evaluation of performance as satisfactory or unsatisfactory as per Learning Outcomes plus satisfactory completion of skills check-list
- Mandatory attendance as per BC Care Aide Registry requirements

Total 100

**Learning Environment/Type**

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>C - Clinical</td>
<td>60</td>
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</table>

Total 60

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Performance of skills
2. Medical asepsis
3. Body mechanics
4. Safety
5. Organization
6. Communication
7. Responsibility
8. Professional behavior

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</table>
### Course Outline

**Course Name:** Personal Care and Assistance 2  
**Course Number:** HRCA 1232  
**Number of Credits:** 3.0  
**Effective Date:** Sep 1, 2016

#### Course Description:

This practical course offers students the opportunity to acquire additional personal care and assistance skills within the parameters of the Health Care Assistant role. The course is comprised of class and supervised laboratory experiences which assist the student to integrate theory from other courses to further develop care-giver skills that maintain and promote the comfort, safety and independence of individuals in acute care and diverse contexts.

**School or Centre:** Health Sciences  
**Year of Study:** 1st Year Post-secondary

#### Course History:

Revised Course

#### Course Pre-requisites (if applicable):

Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135

#### Course Co-requisites (if applicable):

ELSK 0702; HRCA 1224; HRCA 1226

#### PLAR (Prior Learning Assessment & Recognition)

- [ ] No  
- [ ] Yes (details below):
Instructional Strategies:
Lecture
Variety of group activities
Demonstrations of skills
Lab activities
Online activities

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Perform personal care skills in an organized manner ensuring the comfort and appropriate independence of the client.

2. Apply an informed problem-solving process to the provision of care and assistance.

3. Provide personal care and assistance within the parameters of the Health Care Assistant.

4. Provide care and assistance in ways that maintain safety for self and others in a variety of contexts.

Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:

1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.

2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.

3. Provide care and assistance for clients experiencing complex health challenges.

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<tr>
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<th>Specify if ‘Other’</th>
<th>Specify Passing Grade</th>
</tr>
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<tbody>
<tr>
<td>Letter Grades</td>
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<td>c+ = 64% + satisfactory integration exercise</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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<td>Final Exam</td>
<td>35</td>
<td>Multiple choice exam</td>
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<tr>
<td>Assignments</td>
<td>30</td>
<td>Written assignment</td>
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<tr>
<td>Lab Work</td>
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<td>Must demonstrate mastery of skills to a satisfactory level in an integration exercise in nursing lab (rubric).</td>
</tr>
<tr>
<td>Participation</td>
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<td>Mandatory attendance as per department requirements</td>
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Total 100%

### Learning Environment/Type

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<tbody>
<tr>
<td>L - Classroom</td>
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</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>60</td>
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</table>

Total 90%

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
1. Problem-solving when carrying out care-giving procedures.
3. Promoting comfort and rest.
4. Promoting personal hygiene.
5. Moving, positioning and transferring a client.
7. Promoting exercise and activity.
8. Promoting healthy nutrition and fluid intake.
10. Measuring vital signs
11. Heat and cold applications
12. Assisting with oxygen needs
13. Home management
14. Assisting with Medications for clients able to direct own care

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<td>Approved by Education Council:</td>
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</table>
**Course Name:** Community Practicum

**Course Number:** HRCA 1328  
**Number of Credits:** 2.0  
**Effective Date:** Sep 1, 2016

**Course Description:**
This practical course provides students with an opportunity to apply knowledge and skills from all other courses with individuals and families in a community setting. Opportunity will be provided for students to become more familiar with the role of the Health Care Assistant within a Home Support Agency, Assisted Living facility, and or a Group Home, and to gain abilities that will prepare graduates for employment in these settings. It is important that students understand the philosophy of community care settings and its emphasis on client choice and independence.

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**School or Centre:**  
Health Sciences

**Year of Study:**  
1st Year Post-secondary

**Course History:**  
Revised Course

**Course Pre-requisites (if applicable):**
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, ELSK 0702, ELSK 0703, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135, HRCA 1224, HRCA 1226, HRCA 1227, HRCA 1232, HRCA 1329

**Course Co-requisites (if applicable):**

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**PLAR (Prior Learning Assessment & Recognition)**  
☑ No  ☐ Yes (details below):
Course Learning Outcomes:

Upon successful completion of this course, students will be able to:
1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care-giver role in a reflective, responsible, accountable and professional manner.

Program Learning Outcomes:

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:
1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicum</td>
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<tr>
<td>Participation</td>
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<td>Mandatory attendance as per BC Care Aide Registry requirements</td>
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</table>

*Total 100*

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tr>
<td>P - Practicum</td>
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</table>

*Total 60*

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

1. Performance of skills
2. Medical asepsis
3. Body mechanics
4. Safety
5. Organization
6. Communication
7. Responsibility
8. Professional behavior

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Approved by Curriculum Committee: Dec. 15, 2015

Approved by Education Council:
### Course Name: Clinical 3

| Course Number: HRCA 1329 | Number of Credits: 5.0 | Effective Date: Sept 1, 2016 |

### Course Description:
This supervised practical experience provides students with further opportunity to apply knowledge and skills learned in the other courses in the Health Care Assistant/ESL program with individuals in a multi-level or complex care setting. Opportunity will be provided for students to increase their expertise in organizational ability and confidence with the role of the Health Care Assistant within a residential facility. During this course students’ skills and application of knowledge will be assessed.

### School or Centre: Health Sciences

### Year of Study: 1st Year Post-secondary

### Course History: Revised Course

### Course Pre-requisites (if applicable):
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, ELSK 0702, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135, HRCA 1224, HRCA 1226, HRCA 1227, HRCA 1232

### Course Co-requisites (if applicable):
ELSK 0703

### PLAR (Prior Learning Assessment & Recognition)
- ☒ No
- ☐ Yes (details below):
**Instructional Strategies:**
Clinical instruction, supervision and evaluation.
Online activities

**Course Learning Outcomes:**

Upon successful completion of this course, students will be able to:
1. Provide care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance for five or six dependent clients. The care provided promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families.
7. Provide personal care and assistance for five/six clients in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care-giver role in a reflective, responsible, accountable and professional manner.

**Program Learning Outcomes:**

Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:
1. Provide person-centred care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the healthcare team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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<td>Satisfactory</td>
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#### Components and Weighting of the Assessment/Evaluation Plan:

<table>
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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
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<tbody>
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<td>Clinical Examination</td>
<td>100</td>
<td>Practical evaluation of performance as satisfactory or unsatisfactory as per Learning Outcomes plus</td>
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<td></td>
<td></td>
<td>satisfactory completion of skills check-list</td>
</tr>
<tr>
<td>Participation</td>
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<td>Mandatory attendance as per BC Care Aide Registry requirements</td>
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**Total 100**

#### Learning Environment/Type

<table>
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<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
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</table>

**Total 150**

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
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**FOR COMMITTEE USE ONLY**

| Approved by Curriculum Committee: | Dec. 15, 2015 | Approved by Education Council: |   |
Course Name: English Language Skills 1

Course Number: ELSK 0701
Number of Credits: 5.0
Effective Date: Sep 1, 2016

Course Description:
This course provides ongoing English language support for learners of English as an additional language as they acquire the skills of a Health Care Assistant. To ensure learner success, this course focuses on development of study skills, reading skills, writing skills and strategies for vocabulary acquisition to enable learners to understand and discuss course concepts, materials, and procedures accurately. This course develops interpersonal professional communication skills in class and in clinical with an emphasis on clear and appropriate speaking and effective listening. It also includes developing an awareness of workplace expectations, culture and appropriate language. Reading, writing and interactive communication (listening and speaking) skills are taught concurrently and in conjunction with topics in the Health Care Assistant Level 1 curriculum. Upon completion of English Language Skills 1, learners have the communication skills required to provide personal care for clients in a complex care setting and to interact with clients and health team members.

Course Pre-requisites (if applicable):
Admission to the Health Care Assistant/ESL Program

Course Co-requisites (if applicable):
HRCA 1103; HRCA 1105; HRCA 1120; HRCA 1122; HRCA 1131; HRCA 1135

PLAR (Prior Learning Assessment & Recognition)
☒ No ☐ Yes (details below):
Instructional Strategies:
- lectures
- classroom activities
- lab activities
- group work
- clinical experience

Course Learning Outcomes:
Upon completion of English Language Skills 1, learners will be able to:
1. Read and demonstrate an understanding of textbook and course materials for HCA/ESL Level 1.
2. Develop and use strategies to understand unfamiliar written material.
3. Explain and discuss course concepts, main ideas, and details for HCA/ESL Level 1.
4. Use professional terminology appropriate to HCA/ESL Level 1 in a readily understood manner.
5. Respond effectively to verbal information, explanations, questions, requests, and directives.
6. Develop and use strategies to clarify and confirm verbal information.
7. Write HCA/ESL Level 1 Reflective Journals and course assignments clearly and in an appropriate format.
8. Restate, explain, and respond appropriately to shift reports in a complex care setting.
9. Speak appropriately and in a readily understood manner to clients and to health team members in a complex care setting.
10. Listen attentively and respond appropriately to clients and to health team members in a complex care setting.
11. Report clearly and appropriately to health team members in a complex care setting.
12. Communicate in a caring manner during the care-giving process in a complex care setting.
13. Read and demonstrate understanding of appropriate written information in a complex care setting.
14. Write clear, appropriate client reports in a complex care setting.
15. Respond appropriately to clients, family and health team members in a complex care setting.

Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL program, graduates will be able to:
1. Provide person-centered care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the health team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
Evaluation/Grading System

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<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory/Unsatisfactory</td>
<td></td>
<td>satisfactory (where &quot;S&quot;=64%)</td>
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</table>

Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>15</td>
<td>writing skills assessed through Health Care Assistant assignments and reflective journals</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>15</td>
<td>reading and vocabulary skills assessed through reading assignments and vocabulary quizzes</td>
</tr>
<tr>
<td>Lab Work</td>
<td>30</td>
<td>communication skills assessed during Lab testing</td>
</tr>
<tr>
<td>Field Experience</td>
<td>35</td>
<td>listening and interactive communication skills assessed during clinical experience</td>
</tr>
<tr>
<td>Participation</td>
<td>5</td>
<td>attendance and participation in class and group activities</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
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Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>C - Clinical</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

| **Total**         | **150**                    |          |

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Reflective journal writing.
Writing assignments for Health Care Assistant Level 1 (clarification; organization; development; mechanics).
Reading a textbook for comprehension (Health Care Assistant Level 1 topics).
Reading a textbook for comprehension (Health Care Assistant Level 1 topics).
Skimming and scanning.
Understanding and pronunciation of medical and professional terminology (Health Care Assistant Level 1).
Understanding and following direction (acknowledging; clarifying; confirming; responding).
Understanding shift reports for complex care settings (restating; explaining).
Interacting with clients.
Interacting with the health care team.

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</tr>
</thead>
<tbody>
<tr>
<td>Dec. 15, 2015</td>
<td></td>
</tr>
</tbody>
</table>
**Course Name:** English Language Skills 2

**Course Number:** ELSK 0702  
**Number of Credits:** 4.0  
**Effective Date:** Sep 1, 2016

**Course Description:**
This course builds upon the communication skills of a Health Care Assistant developed in English Language Skills 1. Strategies to develop learners' acquisition of a professional vocabulary, reading skills, writing skills and oral presentation skills are emphasized. The learner's interpersonal communication skills are enhanced while providing care for clients in a Special Care setting. Reading, writing, and interactive communication (listening & speaking) skills are taught concurrently and in conjunction with topics in the Health Care Assistant curriculum. Upon completion of English Language Skills 2, learners have the communication skills required to provide personal care for clients in a Special Care setting, and to interact with clients and health team members.

**School or Centre:** School of Access  
**Year of Study:** ESL Course

**Course History:** Revised Course

**Course Pre-requisites (if applicable):**
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0701, HRCA 1103, HRCA 1105, HRCA 1120, HRCA 1122, HRCA 1131, HRCA 1135

**Course Co-requisites (if applicable):**
HRCA 1224, HRCA 1226, HRCA 1227, HRCA 1232

**PLAR (Prior Learning Assessment & Recognition):**  
☑ No  ☐ Yes (details below):
### Instructional Strategies:
- lectures
- classroom activities
- lab activities
- group work
- clinical experience

### Course Learning Outcomes:
Upon completion of English Language Skills 2, learners will be able to:
1. Read and demonstrate an understanding of textbook and course materials for HCA/ESL Level 2.
2. Continue to use strategies to understand unfamiliar written material.
3. Explain and discuss course concepts, main ideas, and details for HCA/ESL Level 2.
4. Use professional terminology appropriate to HCA/ESL Level 2 in a readily understood manner.
5. Continue to respond effectively to verbal/oral information, explanations, questions, requests, and directives.
6. Continue to use strategies to clarify and confirm oral information.
7. Write HCA/ESL Level 2 course assignments clearly and in an appropriate format.
8. Give oral presentations in a readily understood manner.
9. Restate, explain, and respond appropriately to shift reports in a Special Care setting.
10. Speak clearly and in a manner appropriate to clients in a Special Care setting.
11. Listen attentively and respond appropriately to clients in a Special Care setting.
12. Listen attentively and respond appropriately to health team members in a Special Care setting.
13. Report clearly and appropriately to health team members in a Special Care setting.
14. Communicate in a caring manner during the care-giving process in a Special Care setting.
15. Read and demonstrate understanding of appropriate written information in a Special Care setting.
16. Write clear, appropriate client reports in a Special Care setting.
17. Continue to respond appropriately to clients, family and health team members in a Special Care setting.

### Program Learning Outcomes:
Upon completion of the Health Care Assistant/ESL Program, graduates will be able to:
1. Provide person-centered care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients with cognitive and/or mental health challenges.
5. Interact with other members of the health team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
### Evaluation/Grading System

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<tr>
<th>Grading System</th>
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<tbody>
<tr>
<td>Satisfactory/Unsatisfactory</td>
<td></td>
<td>Satisfactory (where &quot;S&quot; = 64%)</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>15</td>
<td>writing and oral skills assessed through Health Care Assistant assignments and group oral presentation</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>15</td>
<td>reading and vocabulary skills assessed through reading assignments and vocabulary quizzes</td>
</tr>
<tr>
<td>Lab Work</td>
<td>30</td>
<td>communication skills assessed during Health Care Assistant Lab testing</td>
</tr>
<tr>
<td>Field Experience</td>
<td>35</td>
<td>listening and interactive communication skills assessed during HCA clinical experience</td>
</tr>
<tr>
<td>Participation</td>
<td>5</td>
<td>attendance and participation in class and group activities</td>
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</table>

Total 100

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>90</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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<td>C - Clinical</td>
<td>25</td>
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Total 140

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Oral presentation skills (planning; organizing; presenting).
Writing assignments for Health Care Assistant Level 2 (clarification; organization; mechanics).
Reading a textbook for comprehension (Health Care Assistant Level 2 topics).
Understanding and pronunciation of medical and professional terminology (Health Care Assistant Level 2).
Understanding and following direction (acknowledging; clarifying; confirming; responding).
Understanding shift reports for Special Care settings (restating; explaining).
Communicating with clients with dementia.
Interacting with clients with dementia.
Interacting with the health care team.

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<tbody>
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<td>Dec. 15, 2015</td>
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</table>
Course Name: English Language Skills 3

Course Number: ELSK 0703  Number of Credits: 2.0  Effective Date: Sep 1, 2016

Course Description:
This course continues to develop the English language skills of learners of an additional language in the Health Care Assistant/ESL Program and builds on the skills learned in English Language Skills 2. It focuses especially on the listening and speaking skills required to communicate effectively as a Health Care Assistant in an extended care setting, and on the Job Search Skills required to enter the workforce as a Health Care Assistant. Reading, writing, and vocabulary skills will continue to be developed, especially as they apply to the workplace. Reading, writing, and interactive communication (listening & speaking) skills are taught concurrently and in conjunction with situations and topics in Health Care Assistant Clinical 3. Upon completion of English Language Skills 3, learners have the communication skills required to provide personal care for clients in an extended care setting and to interact with clients and members of the health team.

Course Pre-requisites (if applicable):
Completion of the following courses in the Health Care Assistant/ESL program: ELSK 0702, HRCA 1224, HRCA 1226, HRCA 1227, HRCA 1232

Course Co-requisites (if applicable):
HRCA 1328; HRCA 1329

PLAR (Prior Learning Assessment & Recognition)  No  Yes (details below):
Instructional Strategies:
lectures
classroom activities
group work
clinical experience

Course Learning Outcomes:
Upon completion of English Language Skills 3, learners will be able to:
1. Restate, explain, and respond appropriately to shift reports in an extended care setting.
2. Speak clearly and in a manner appropriate to clients in an extended care setting.
3. Listen attentively and respond appropriately to clients in an extended care setting.
4. Listen attentively and respond appropriately to health team members in an extended care setting.
5. Report clearly and appropriately to health team members in an extended care setting.
6. Communicate in a caring manner during the care-giving process in an extended care setting.
7. Read and demonstrate understanding of appropriate written information in an extended care setting.
8. Write clear, appropriate client reports in an extended care setting.
9. Continue to respond appropriately to clients, family and health team in an extended care setting.
10. Understand job postings as they apply to HCA.
11. Prepare a resume, cover letters, and references for a HCA position.
12. Understand the literal and underlying meaning of job interview questions.
13. Know where and how to apply for a job as a HCA.
14. Complete appropriate job application forms, both hard copy and on-line.
15. Know how to apply to the BC Care Aide and Community Health Worker Registry.

Program Learning Outcomes:
Upon completion of the Health Care Assistant Program/ESL, graduates will be able to:
1. Provide person-centered care and assistance that recognizes and respects the uniqueness of each individual client.
2. Use an informed problem-solving approach to provide care and assistance that promotes the physical, psychological, social, cognitive and spiritual well-being of clients and families.
3. Provide care and assistance for clients experiencing complex health challenges.
4. Provide care and assistance for clients experiencing cognitive and/or mental health challenges.
5. Interact with other members of the health team in ways that contribute to effective working relationships and the achievement of goals.
6. Communicate clearly, accurately and in sensitive ways with clients and families within a variety of community and facility contexts.
7. Provide personal care and assistance in a safe, competent and organized manner.
8. Recognize and respond to own self-development, learning and health enhancement needs.
9. Perform the care provider role in a reflective, responsible, accountable and professional manner.
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</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>35</td>
<td>Job Search readiness is assessed through resume, cover letter, references, and mock interviews</td>
</tr>
<tr>
<td>Field Experience</td>
<td>60</td>
<td>Listening and interactive communication skills critical to employment after graduation</td>
</tr>
<tr>
<td>Participation</td>
<td>5</td>
<td>Attendance and participation in class and group activities</td>
</tr>
</tbody>
</table>

Total 100

## Learning Environment/Type

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<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>C - Clinical</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Total 60

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Job Search Skills:
Where to apply for a job
Preparing a resume
Understanding and responding to job interview questions
Job description & job postings
Preparing a Cover Letter
Preparing References
Completing Job Application Forms
How to apply for a job
The BC Care Aide and Community Health Worker Registry

Clinical Practice:
Understanding shift reports in an extended care setting
Interacting with clients in an extended care setting
Interacting with co-workers in an extended care setting
Interacting with the health care team in an extended care setting
Writing client reports in an extended care setting

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

Approved by Curriculum Committee: Dec. 15, 2015
Approved by Education Council:
PREPARED FOR: Education Council

ISSUE: Changes to Three Drafting Certificates: Architectural Technician Certificate, Civil-Structural Technician Certificate, Steel Detailing Technician Certificate

BACKGROUND:
This proposal, presented by Bruce McGarvie, was part of a group of proposals from the Drafting Program presented at the 15 December 2015 Curriculum Committee. Taken together the proposals represented a significant restructuring of the Drafting Program. The committee decided that one part of the proposal group, that dealing with a new Drafting Diploma should not go forward at this time as it did not contain significant higher level content as required by VCC policy and PSIPS. This note deals with the changes to the three existing drafting Certificates.

The proposed changes are extensive and include reorganized course content, new courses and, most significantly, requiring 40 credits, up from 27 credits, for each certificate.

DISCUSSION:
As noted in “Background” there was a great deal of discussion regarding the nature of the proposed new diploma before it was decided to not move it forward. When the committee broke up the proposal into three parts there was no further significant discussion regarding the changes to the three Drafting Certificates.

RECOMMENDATION:
Curriculum Committee recommends Education Council approve changes to three Drafting Certificates

Prepared by:
David Branter
Chair, Curriculum Committee
Proposal for New Program

Name of Proposed Program: Architectural Technician – Certificate

Additional material may also be included as appendices. For information about submitting the completed Proposal for New Program, please contact the Centre for Instructional Development.

Curriculum development is a consultative process. Therefore, it is understood that this is a living document which will be refined as it moves through the development process.

A. Concept

Department Leader: Bruce McGarvie

Faculty: School of Music, Dance and Design

Dean: Debbie Sargent (Interim)

Proposal Date: September 2016

If this is a joint educational offering, name of other institution (refer to Affiliation Agreement Policy C.3.10):

Purpose and Context

1. Describe in detail the program’s objectives and a description of the program outcomes, including a list of the occupations or roles that graduates will be prepared for:

This program will replace the Drafting Technician Certificate – Architectural. Graduates of this new program will have developed the Computer Aided Drafting (CAD) and Building Information Modeling (BIM) skills which will enable them to enter the workforce in many areas as team members in: consulting engineering firms, architectural firms, municipal, provincial or federal offices, as well as in private industry for developers and construction companies. Graduates will work on a wide variety of single and multi-family residences, sub-division developments, commercial and institutional buildings and high rise structures. The certificate will substantially satisfy the criteria for program accreditation by the Applied Science Technologists and Technicians of BC (ASTTBC), with completion of the criteria obtained with the second year Diploma program.

The successful graduates can ladder into the 24-week CAD BIM Technician Diploma program to build on the skills learned in this program. This program expands the level of current technical processes with a greater emphasis on BIM.

The program outcomes are:

- Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ Computer Aided Drafting (CAD) skills to produce drawings from data, designs and/or specifications.
- Develop drafting and related trade knowledge.
- Develop 3D modeling and related trade skills and knowledge.
- Demonstrate an understanding of drafting skills and conventions.
- Use concepts of building construction and technology to plan and detail residential and commercial buildings in accordance with local by-laws and the BC Building Code.
Proposal for New Program

- Prepare Architectural drawings of residential and commercial structures, which incorporate concrete, steel and wood.
- Apply terminology and conventions used in industry.
- Prepare a comprehensive professional portfolio.
- Prepare a résumé and letters of application and perform other related job search skills.

2. Explain how this program adheres to principles and priorities as indicated in the College’s strategic, educational or ministerial planning documents:

The design of this new program supports the College’s Strategic Initiatives and Education Plan, as demonstrated by the following:

- The program is designed to support the BC government’s Labour Market 2020 forecast for increased demand in the technical and trades segment for the energy industry infrastructure, LNG and major hydro projects.
- The new program aligns with the learning outcomes outlined in the accreditation standards for Applied Science Technologists and Technicians of BC (ASTTBC) and the Technology Accreditations Canada (TAC). The goal is to have the Certificate program satisfying most of the objectives required for accreditation and to be completed with the CAD and BIM Technician Diploma.
- This program addresses the special needs of newcomers to Canada as well as international students looking to gain knowledge in the local industry.
- This program is well suited for students with certain physical disabilities provided the computer work station can be adapted for their use. This reduces barriers for those in wheelchairs or with walking difficulties.
- This program is designed and updated to include a higher level of technical knowledge and an increased ability in BIM. As such, it is more relevant to industry needs.
- The focus of this new program is to provide relevant high quality curriculum that leads to student success and to maintain a positive reputation in the community.

3. Identify how the proposed program supports VCC’s mission, core values, and strategic objectives?

This new program will provide the most current training required by the building and design industry today. The certificate will also provide access to those wishing to pursue a CAD and BIM Technician diploma, and thus achieve ASTTBC accreditation.

VCC has many supports for students to facilitate success. The CAD and BIM Technologies department refers students to these services in support of student success. Several strategies are built into the program to help students gain success.

The CAD and BIM Technologies department has many partnerships and collaborations. Numerous informal affiliation agreements exist in support of student placement. Many architectural and engineering firms in the greater Vancouver area seek our graduates for placement.

The regulatory body ASTTBC and our Program Advisory Committee have been asking VCC to develop an accredited program for some time now. We value the positive partnership we have with these stakeholders.

The Drafting program graduates have historically achieved high standards. As such, the program has a positive reputation in the design and building community. This new design and technological upgrade to the program will continue this tradition in the years to come.

4. How does this program relate to and/or support other programs at VCC?

This program can be a gateway for students who become interested in a higher level of Architectural design. Students could enter first year engineering program if they meet the entrance requirements. Conversely, for those students who enter the first year engineering and want a program that is more technically focused, the Architectural Technician Certificate program would be a good option. International students and newcomers to
Proposal for New Program

Canada who have completed the ESL program, and local students who have completed the ABE program, can also enter this program.

Program Need

5. What educational gap, if any, is this program intended to fill?

There is a consistent demand for Architectural and BIM technicians in British Columbia. The program at VCC has been providing skilled drafters for the engineering and construction industries for over five decades. With this new program, the department will be well suited to continue to provide highly skilled technicians ready for today’s market place.

6. What evidence is there of student demand for the program?

The Drafting programs at VCC have been successfully delivered each and every year for over half a century, producing the drafters that have assisted in building this city and this province over that time. Many of the local companies delivering drafting and CAD services are either owned by former grads, or have former grads in senior management positions. From a purely statistical standpoint, our programs over the past five years have attracted students as shown in the table below:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Architectural</th>
<th>Civil/Structural</th>
<th>Steel Detailing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credential</td>
<td>Certificate</td>
<td>Diploma</td>
</tr>
<tr>
<td>2015</td>
<td>20</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>2013</td>
<td>20</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>2012</td>
<td>19</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>2011</td>
<td>18</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Average/year</td>
<td>19</td>
<td>19</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: VCC Registrar’s Office

7. What evidence is there of labour market, professional or community demand for the graduates (report results)?

From Employment and Social Development Canada projection (COPS) Sept 2015 (Appendix 1):

“Over the 2013-2022 period, an occupation will be in excess demand (a shortage of workers) if the projected number of job openings is significantly greater than the projected number of job seekers. An occupation will be in excess supply (a surplus of workers) if the projected number of job openings is smaller than the projected number of job seekers. For Technical Occupations In Architecture, Drafting, Surveying And Mapping, over the 2013-2022 period, job openings (arising from expansion demand and replacement demand) are expected to total 16,340 and 10,998 job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.”
Proposal for New Program

From BC government’s Work BC labour market outlook Sept. 2015 (Appendix 2):

<table>
<thead>
<tr>
<th>Year</th>
<th>Expected Number of Job Openings (2012 - 2022)</th>
<th>Cumulative Number of Jobs (2012 - 2022)</th>
<th>% Job Openings from Replacement</th>
<th>% Job Openings from Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>300</td>
<td>3,300</td>
<td>66 %</td>
<td>34 %</td>
</tr>
<tr>
<td>2017</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Expected Growth in Employment Demand**
Forecasted demand for workers in this field.

<table>
<thead>
<tr>
<th>Year</th>
<th>Expected Employment Demand (2012 - 2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>7,700</td>
</tr>
<tr>
<td>2017</td>
<td>8,200</td>
</tr>
<tr>
<td>2022</td>
<td>8,800</td>
</tr>
</tbody>
</table>

**Projected Unemployment Rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>5.9 %</td>
</tr>
<tr>
<td>2017</td>
<td>5.8 %</td>
</tr>
<tr>
<td>2022</td>
<td>3.7 %</td>
</tr>
</tbody>
</table>

**Estimated Demand for Workers in 2015 in B.C.**

7,900

**Competitiveness of Job Market in B.C.**
Ratio of number of unemployed people to number of new job openings.

<table>
<thead>
<tr>
<th>Year</th>
<th>Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2:1</td>
</tr>
<tr>
<td>2017</td>
<td>1:1</td>
</tr>
<tr>
<td>2022</td>
<td>1:1</td>
</tr>
</tbody>
</table>

Opportunities outlook information is based on BC Labour Market Outlook 2012-2022
Proposal for New Program


“While BC’s technology sector is growing and technology jobs are becoming strategically critical to our knowledge-based economy, other industrialized nations are also in the hunt for such workers.

In the Manpower Group’s most recent Talent Shortage Survey (2012), they asked employers throughout the world about which jobs they are having the most difficulty filling. The bottom line is that there is extremely strong competition for technical talent, with “top ten” lists dominated by jobs in Science, Technology, Engineering and Mathematics, including skilled trades.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Unfilled Positions by 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological and mineral technologists</td>
<td>375</td>
</tr>
<tr>
<td>Drafting technologists and technicians</td>
<td>315</td>
</tr>
<tr>
<td>Heavy equipment operators (except crane)</td>
<td>305</td>
</tr>
<tr>
<td>Mapping and related technologists and technicians</td>
<td>280</td>
</tr>
<tr>
<td>Geological engineers</td>
<td>245</td>
</tr>
</tbody>
</table>

8. Anticipated start date of program:
   September 2016

Competitive Analysis

9. Which related programs are available in the lower Mainland and/or on-line: how do they compare in terms of focus, intended outcomes, length, costs and size?

     There are 5 related programs in the lower Mainland, offered by Kwantlen Polytechnic University (KPU), British Columbia Institute of Technology (BCIT), and Brighton College:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Credential</th>
<th>Credits</th>
<th>Cost*</th>
<th>Duration</th>
<th>Pass marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPU</td>
<td>ARCHITECTURAL CERTIFICATE</td>
<td>32</td>
<td>$4487.52</td>
<td>2 SEMESTERS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>KPU</td>
<td>STRUCTURAL CERTIFICATE</td>
<td>32</td>
<td>$4487.52</td>
<td>2 SEMESTERS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>KPU</td>
<td>ARCHITECTURAL CADD &amp; GRAPHICS TECHNICIAN</td>
<td>80</td>
<td>$6248.80</td>
<td>40 WEEKS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>BCIT</td>
<td>ARCHITECTURAL CADD &amp; GRAPHICS TECHNICIAN</td>
<td>80</td>
<td>$6248.80</td>
<td>40 WEEKS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>Brighton College</td>
<td>ARCHITECTURAL DRAFTING AND DESIGN SPECIALIST</td>
<td>Not Available</td>
<td>$14,550.00</td>
<td>34 WEEKS</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

* Includes Student Association fee
10. Is this concept supportable and sustainable with existing and/or available resources?

There will be no change to the program costs other than to include Program Assistant support. There currently is no support staff working in the Department. Efforts will be made to attain a tuition lift and have a higher tuition than the current programs have.

11. Is this a cohort, selective entry, or open access program? How will the program be rolled out if you are not using a cohort model?

Yes, this will be a cohort based program.

12. What is the expected length of program (in months/years)? What is the maximum allowable time for completion?

The expected length remains unchanged at 10 months, with 2 years allowed for completion.

13. How many students would you expect to enroll in each year of the program?

We would expect 18-20 students in the Architectural Technician program.

Admission and Delivery

14. Provide a detailed list of admission requirements, including language proficiency levels and assessment scores.

- Grade 12 graduation or equivalent is required.
- Apprenticeship and Workplace Math 11 or Pre-Calculus 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.

VCC CAD Citation graduates may insert into level 2 of the program.

15. Will the structure of the program allow for full-time, part-time, evening, weekend, on-line, mixed-mode delivery methods, or a combination of any of these? (Identify each as appropriate).

The program structure will allow for full time, days and/or evenings Monday to Friday. If enrollments demand more classes, both a day class and an evening class can run concurrently.

16. Will the structure of the program allow for multiple entry and exit points? If there are multiple entry points, please specify requirements for each.

The intended program allows for a student to exit after Level 1 of the Architectural Technician program and enter the Citation program at Level 2.
Conversely, the intended program allows for a Citation student to enter Level 2 of the Architectural Technician Certificate program after completing Level 1 of the Citation program.
17. Who are your target students (age, gender, educational background, work experience)? Where do they come from (recent high school graduates, mature students, transfers from other institutions)? How do you plan to recruit or attract these students? Are there other characteristics applicants should have that you identify as important?

We have three (3) primary target populations of students.
1. Recent high school graduates or 1st year university/college students looking for a career in the technology design professions.
2. Those in their mid to late twenties who are looking for post-secondary training to obtain a better career.
3. Those trades people who have been hurt or laid-off and are looking for retraining through Work Safe or EI.

Recruitment activities will include:
• a targeted social media and online campaign
• visiting the area secondary school and meeting with drafting teachers and counselors
• having teachers visit the college and tour our department
• trade shows
• VCC Info nights
• CAD & BIM Technologies Department information sessions
• hosting high school students on Pro-D days and Spring Break

Other important characteristics that applicants should have would include:
• Excellent English communication skills.
• Working knowledge of Windows OS is strongly recommended.
• Good mathematical and mechanical comprehension.
• Ability to work in imperial and metric units of measurement.
• General good health, good hand-eye coordination and manual dexterity.
• Successful work habits and an ability to work well with others.
• Logical reasoning and an ability to visualize objects.
• Interest in all aspects of architecture, engineering, general construction and related fields.

18. How will the program address the needs of under-prepared students? How will you get these students into appropriate upgrading courses or programs? What options are available...?

Students not meeting the program pre-requisites will be able to meet with someone from the Advising Department to determine which courses will help them to best meet the prerequisites.

19. How will the program address equity by decreasing systemic barriers? Is this type of program traditionally or historically underrepresented in specific cohort groups? (e.g., gender and/or age imbalance, First Nations) How will the program address these issues?

Although the engineering and fabrication industry traditionally admits a larger percentage of male applicants than female applicants, females are strongly encouraged to apply. Marketing strategies are being developed to attain more gender balance. The program may be suited for those applicants with physical barriers (wheelchairs, crutches, walkers, etc.) that meet the program requirements. We are encouraging First Nations students to apply by our close cooperation with the Aboriginal Services department.
Proposal for New Program

20. How will the program ensure educational effectiveness (e.g., retention, progression, completion)?

VCC has been a leader in training drafters for more than 50 years. Our well-respected and longstanding Program is widely recognized by many of the industry leaders with a great number of Department managers and company partners as former graduates of the program. Historically there has been some attrition within Level 1 of the program. Based on these past attrition rates in first level, we plan to ‘overfill’ our first year to 20 students. We expect there will be a large interest in the diploma program due to our expected accreditation from ASTTBC. This will motivate students and increase retention.

21. Describe how the proposed program incorporates work experience, practicum, clinical practice, etc. (if applicable):

Learning is fostered through seminars, lectures, labs, and problem based learning. Students have opportunities to apply knowledge and practice various abilities while entering various design competitions, for example Skills Canada and the BC AutoCAD competition.

Although the program does not have a formal practicum component as the industry does not lend itself to a consistent placement model, there are offered to the department by our PAC members firms and industry relationships. The number and frequency varies from year to year as industry conditions vary. The program is designed to foster the development of professionalism, a commitment to lifelong learning, and dedication to an ethical profession through classroom group activities and team projects.

22. Does the program create opportunities for students to transfer credit and/or ladder from/to other programs?

Yes, students completing transfer courses at other institutions can be awarded transfer credits provided they meet the transferability requirements established by the British Columbia Drafting Technologies Articulation Committee of BCCAT.

Certificate graduates will have the opportunity to ladder to the CAD and 3D BIM Diploma program. In addition, graduates may ladder into the Science or Engineering programs here at VCC or into other degree and diploma programs such as BCIT’s Architectural and Building Technologist Programs, provided they meet the entrance requirements. The student needing some higher level math or science prerequisite courses could upgrade here at VCC as part of their academic pursuit.

23. Will this program allow students to continue with further study? Describe laddering, bridging, or post-credential continuation of education.

As above...

24. Does this program include Prior Learning Assessment and Recognition (PLAR) as per Policy ##?

PLAR is included for two courses in Level 1, CAD Drafting – Fundamentals DRFT 1010 and CAD Drafting – Applied DRFT 1011. PLAR for either of these courses is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty.

25. Explain how current faculty are qualified to deliver the program. If they are not, how will this issue be addressed?
Proposal for New Program

As per the VCC Qualifications for Faculty Members policy and procedures, all current faculty members meet the area hiring criteria and have the appropriate balance of employment experience, academic and/or professional/industry credentials, with a commitment to teaching excellence.

Consultation Overview

26. With whom have you consulted internally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of feedback (refer to Appendix XX):

We have consulted with:

- Dean of Design, Graham Webber, many times in the last year. Graham has indicated his support and stated that the VCC PAC has been advocating for this for some time now.
- Dean of Health Sciences, Debbie Sargent on Sept. 1st and 21st, 2015. Debbie has indicated her support as well.
- Dean for Centre for Instructional Development, Susie Findlay (several meeting in the last year). Susie has indicated the support of her area to provide assistance required for program development.
- Instructional Associate for Centre for Instructional Development, Garth Manning (numerous meetings and continual consulting). Garth has indicated the support of his area to provide assistance required for program development.
- Marketing & Communication Officer, Kristy Neville (several meetings in the last year). Kristy has indicated her support and is working on new initiatives to support the new programs.
- Student Recruitment Specialist, Niki Scarfo on Sept. 8th, 2015). Niki has indicated her support and is working on new initiatives to support the new programs.
- Interim Director, Marketing and Communications, Karen Wilson (Oct 2nd, 2015). Karen has indicated her support for moving forward with these programs.
- Interim Registrar and Director Institutional Research, Brian Beacham (Oct 6th, 2015) Brian has indicated the support of his areas and to provide assistance required for proposals.
- Associate Registrar Records, Raymond Kaan (Oct 2nd, 2015) Raymond has indicated the support of his areas and provides new course names and numbers for proposals.
- Dean, International & Immigrant Education, Tina Chow (Oct 6th, 2015) Tina has indicated her support for moving forward with these programs.
- Director, Aboriginal Services, Kory Wilson (Nov 17th, 2015) Kory has indicated his support for moving forward with these programs.

27. With whom have you consulted externally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of discussions.

The VCC Program Advisory Committee (PAC) was consulted in November 2014 and February 2015 (to initiate the changes proposed contained).

A follow up meeting to discuss the results of the curriculum development work was held Oct 8th, 2015. The PAC is in full support of the new programs, and feels the new technology additions and program revisions/additions will make the program stronger, more competitive, especially due to the potential for the accreditation from ASTTBC. Geoff Sale of the ASTTBC visited the college in January and is also in full support and has encouraged the department to apply for accreditation having determined the proposed new program is aligned with the criteria.

Charles Joyner, Registrar of ASTTBC, has forwarded their letter of support which is included with this proposal (see letter of support attached to this submission).
Proposal for New Program

B. Business Case

Institutional Resources

1. What expertise, equipment, facilities and library resources will the program require to support student learning? Ensure that any required new resources in these areas are identified in the Costs section (I).

   The only addition will be Program Assistant support.

2. Outline anticipated requirements for equipment, specialized space, etc.: (classrooms, labs, shops, general space)

   None will be required.

Costs and Revenue (to be prepared by Dean/Associate Dean in consultation with developer)

Budgetary requirements are provided for information purposes only. Program approval does not ensure budgetary support.

Non-Recurring Costs

What will be the costs? Please provide accurate estimates.

Academic non-recurring estimated start-up costs (e.g., equipment costs/other)

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program development</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum development</td>
<td>All courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty recruitment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff – PD / enrichment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Capital Costs (Equipment, Renovations)

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Totals

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Non-Recurring</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Capital Costs</td>
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<tr>
<td>Totals</td>
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</table>
## Proposal for New Program

### Ongoing Costs

#### Operating Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Same as current</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required service courses*</td>
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<tr>
<td>Administrative Support</td>
<td>New</td>
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<tr>
<td>Advisor</td>
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<td>Specialized IET</td>
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<tr>
<td>Specialized IT Support</td>
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<tr>
<td>Library</td>
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<td></td>
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</tr>
<tr>
<td>Lab operating costs - Salary</td>
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<tr>
<td>Lab operating costs – Non-Salary</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Ongoing research costs</td>
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<td>Same operational costs as current</td>
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<td><strong>Grand Totals</strong></td>
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</tbody>
</table>

*Summarize costs identified in Appendix XX Consultations, not including Library costs

*Explain required service courses

---

### Revenue

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Courses</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Indicate the specific source(s) of funding for development, both internal and external.

Will apply for Curriculum development funding in the spring.

Indicate the specific source(s) of funding for delivery, both internal and external.

Tuition + base funding.

---

Signature of Dean submitting concept document __________________ Date ____________

---

Curriculum Development and Approval
Pilot Project November 2014 to June 2015

11 of 12
Proposal for New Program

APPENDICES

1. Employment and Social Development Canada projection (COPS) Sept 2015
4. Letter of support from ASTTBC
Architectural Technician
Certificate

Program Content Guide

Effective Date: September, 2016
Purpose

Graduates of this program will have developed the drafting and 3D modeling skills that will enable them to work as team members in architectural firms, consulting engineering firms, municipal, provincial or federal offices, as well as in private industry. Graduates will be prepared to work on a wide variety of residential housing developments, commercial buildings and institutional complexes.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ Computer Aided Drafting (CAD) skills to produce drawings from data, designs and/or specifications.
- Develop drafting and related trade knowledge.
- Develop 3D modeling and related trade skills and knowledge.
- Demonstrate an understanding of drafting skills and conventions.
- Use concepts of building construction and technology to plan and detail residential and commercial buildings in accordance with local by-laws and the BC Building Code.
- Prepare Architectural drawings of residential and commercial structures, which incorporate concrete, steel and wood.
- Apply terminology and conventions used in industry.
- Prepare a comprehensive professional portfolio.
- Prepare a résumé and letters of application and perform other related job search skills.

Instructional Activities, Design and Delivery Mode

This course uses project based learning strategies with instructional presentations and laboratory work using Autodesk Revit Structure, AutoCAD and Civil 3D software. Students may be required to do assignments at home and lab work outside class time on both theory and individual projects.

Program Duration

Ten (10) months, comprised of three levels.

Evaluation of Student Learning

Students are evaluated by:

- Practical projects
- Exams
- Drawings
- Presentations

Credential

Students receive a Architectural Technician Certificate upon successful completion of the program.
Admission Requirements

- 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 an 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.

VCC CAD Citation graduates may insert into level 2 of the program.

Prior Learning Assessment & Recognition (PLAR)

PLAR is available for select courses. See individual Course Outlines for details.

Recommended Characteristics of Students

- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- Interest in all aspects of architecture, engineering, general construction and related fields.
## Course Credits

<table>
<thead>
<tr>
<th>Term/Level</th>
<th>Course #</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DRFT 1010</td>
<td>CAD Drafting Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1011</td>
<td>CAD Drafting Applied</td>
<td>3.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1270</td>
<td>Residential Design</td>
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<tr>
<td>2</td>
<td>DRFT 1271</td>
<td>Site Planning</td>
<td>1.0</td>
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<td>DRFT 1272</td>
<td>Codes and Regulations 1</td>
<td>1.0</td>
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<td>DRFT 1273</td>
<td>Construction Assemblies 1</td>
<td>1.0</td>
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<td>2</td>
<td>DRFT 1274</td>
<td>Single Family Residences</td>
<td>5.0</td>
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<td>DRFT 1275</td>
<td>Codes and Regulations 2</td>
<td>1.0</td>
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<td>DRFT 1276</td>
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<td>2</td>
<td>DRFT 1277</td>
<td>Multi Family Residences</td>
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<tr>
<td>2</td>
<td>DRFT 1278</td>
<td>Drawing Plan Reading</td>
<td>0.5</td>
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<tr>
<td>3</td>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
<td>0.5</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1370</td>
<td>Technical Communications</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1371</td>
<td>Codes and Regulations 3</td>
<td>1.0</td>
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<td>3</td>
<td>DRFT 1372</td>
<td>Construction Assemblies 3</td>
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<tr>
<td>3</td>
<td>DRFT 1373</td>
<td>Commercial Retail Buildings</td>
<td>3.0</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1374</td>
<td>Introduction to 3D and BIM</td>
<td>3.5</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1375</td>
<td>Commercial Layouts Using BIM</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Program Total Credits:** 40.0

This guide is intended as a general guideline only. The college reserves the right to make changes as appropriate.
Course Descriptions

DRFT 1010  CAD Drafting Applied  4.0
This course introduces students to the world of technical drafting, and the tools, terminology and media required to create working drawings of simple and more complex shapes. Students learn and apply the techniques for accurately drawing components, and fully representing them graphically.

DRFT 1011  CAD Drafting Fundamentals  3.0
In this course, students build on the graphical emphasis of DRFT 1010 by studying the conventions relating to the annotation of the drawings and complete a capstone project.

DRFT 1012  Construction Mathematics  1.0
In this course, students will apply a wide variety of mathematical techniques with the degree of accuracy required to solve technical problems appropriate for a CAD technician.

DRFT 1013  Office and Construction Site Safety  1.0
In this course, the students examine the safety aspects of a career in a construction-related field, with particular reference to precautions taken on entering a working construction site, as well as those related to workplace harassment and violence prevention.

DRFT 1270  Residential Design  1.0
In this course, students will identify the roles of engineering and architectural professionals. Students will study and apply architectural theory, sustainable development initiatives such as LEED and the development and design processes.

DRFT 1271  Site Planning  1.0
In this course, students will study site development and follow best practice design required for a typical residence. Students will prepare a site plan following the applicable standards conventions.

DRFT 1272  Codes and Regulations 1  1.0
In this course, students are introduced to the B.C. Building Code (BCBC), Part 9 and the National Building Code as related to the Canadian Wood-Frame House Construction Guide by CMHC. Students develop knowledge in acceptable building practices and standards of light wood frame construction.

DRFT 1273  Construction Assemblies 1  1.0
In this course, students are introduced to conventional building assemblies and building envelope design and materials used in the coastal climate of B.C. Students prepare a typical wall section required for course DRFT 1274, Single Family Residences.

DRFT 1274  Single Family Residences  5.0
In this course students build on architectural residential design practices by applying the appropriate codes and theory of wood framing for residential structures. Students develop knowledge in acceptable standards for preparing a set of framing drawings of a residential wood framed residence.
DRFT 1275  Codes and Regulations 2  1.0
In this course students are introduced to Part 9 of the Vancouver Building Bylaw (VBBL) and to the Zoning and Development Bylaw RM-5 as it applies to multi-family dwellings. Students develop a preliminary site plan layout to determine the allowable building coverage and size as determined by the VBBL.

DRFT 1276  Construction Assemblies 2  1.0
In this course students build knowledge by applying more advanced methods of building assemblies. Students prepare various assembly views required for course DRFT 1277, Multi Family Residences.

DRFT 1277  Multi Family Residences  3.5
In this course students apply the appropriate codes and zoning requirements as set out in the Vancouver Building Bylaw (VBBL) for multi-family wood framed structures. Using previous courses, DRFT 1275 and DRFT 1276, students follow a typical design workflow process to prepare a set of architectural drawings.

DRFT 1278  Drawing Plan Reading  0.5
In this course, the student will learn the basic skills needed to read, study and understand construction drawings.

DRFT 1326  Job Search Skills  0.5
In this course, students are prepared for job search techniques, to apply for employment, and for interviews.

DRFT 1370  Technical Communications  1.0
In this course, the student will learn to communicate clearly, concisely and correctly in writing and in person in various technical communication situations.

DRFT 1371  Codes and Regulations 3  1.0
In this course, students are introduced to Part 3 of the British Columbia Building Code (BCBC) as it applies to commercial occupancies. Students prepare a floor plan layout for a small convenience store required for course DRFT 1373, Commercial Retail Buildings.

DRFT 1372  Construction Assemblies 3  1.0
In this course, students build knowledge from previous courses by applying advanced methods of building assemblies for concrete block and light steel framed buildings. Students prepare various assembly views required for course DRFT 1373, Commercial Retail Building.

DRFT 1373  Commercial Retail Buildings  3.0
In this course, students are introduced to commercial drawing and detailing practices as they apply to concrete block and light steel framed buildings. Students prepare a set of architectural drawings for a retail convenience store.

DRFT 1374  Introduction to 3D and BIM  3.5
In this course, students are introduced to 3D modelling building their skills to incorporate the addition of machine components completed earlier in course DRFT 1011 by developing 3D solids from 2D drawings to construct an assembly drawing. An introduction to Building Information Modelling (BIM) software enables students to construct a parametric model by including all interior and exterior components, entourage and lighting features to produce visually accurate renderings and other drawing documents.
DRFT 1375  Commercial Layouts Using BIM  6.0
This course introduces students to design principals relating to the arrangement of offices and access for persons with disabilities using Part 3 of the British Columbia Building Code (BCBC). Arrangements are developed using 3D BIM modelling software for the final development of construction working drawings.
Transcript of Achievement

All evaluations at completion of semesters are reported to the Student Records Department to produce a Transcript of Achievement. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

Letter Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Distinguished</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
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<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td></td>
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<tr>
<td>C+</td>
<td>Average</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
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<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>Failing grade</td>
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<tr>
<td>N</td>
<td>Ceased to attend and did not complete requirements.</td>
<td>N/A</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
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</tr>
<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
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<tr>
<td>R</td>
<td>Audit. No credit</td>
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<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
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<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as “F” if not fulfilled</td>
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<td>IP</td>
<td>In progress</td>
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<td>@</td>
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<td>RW</td>
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<td>TC</td>
<td>Transfer credit</td>
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</table>

Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.
2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.
3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
4. In order to be granted a certificate on completion of the program, a student must maintain a GPA equivalent to a C average. A student will not receive a certificate if they fail to maintain a C average, or if they receive an F grade in any course or courses.
### Course Outline

**Course Name:** Residential Design  
**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre</th>
<th>Department</th>
<th>Year of Study</th>
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</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
<td>1st Year Post-secondary</td>
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<table>
<thead>
<tr>
<th>Course History</th>
<th>Course Number</th>
<th>Number of Credits</th>
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<tbody>
<tr>
<td>New Course</td>
<td>DRFT 1270</td>
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</table>

**Course Pre-requisites (if applicable):**

Level 1: DRFT 1010, 1011, 1012, 1013

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
- No  
- Yes (details below):

**Course Description:**

In this course, students will identify the roles of engineering and architectural professionals. Students will study and apply architectural theory, sustainable development initiatives such as LEED and the development and design processes.
**Instructional Strategies:**
Lectures, handouts, group/team participation, and videos are used.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:

- Identify the roles of engineering and architectural professionals
- Complete a building permit application form
- Describe various media, reproduction methods and drawing applications
- Complete a set of construction specifications
- Identify design principles used in architecture
- Identify the properties of sustainable design

**Program Learning Outcomes:**
This course serves the following programs:

- Architectural Technician - Certificate
- BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if ‘Other’:</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
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<td>C-</td>
</tr>
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</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>40</td>
<td>2 group/team work sessions of equal value</td>
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<tr>
<td>Assignments</td>
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<td>2 assignments of equal value</td>
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<td>Total 100</td>
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</table>

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</tbody>
</table>

Enter Total Hours 30

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Roles of careers and professional practices
- Team responsibilities
- Drafting media and reproduction methods
- Design basics and process
- Construction procedures
- Building permits
- Architectural conventions and standards
- Construction specifications
- Guidelines and required codes that effect building design
- Room relationships and sizes
- Exterior design factors
- Conservation and environmental design and construction (sustainable design)

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
**Course Name:** Site Planning

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Course</td>
<td>1st Year Post-secondary</td>
</tr>
<tr>
<td>Name of Replacing Course (if applicable):</td>
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</tr>
<tr>
<td>DRFT 1271</td>
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</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

- Level 1: DRFT 1010, 1011, 1012, 1013
- Level 2: DRFT 1270

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- ☒ No  ☐ Yes (details below):

**Course Description:**

In this course, students will study site development and follow best practice design required for a typical residence. Students will prepare a site plan following the applicable standards and conventions.
**Instructional Strategies:**
Lectures, handouts, worksheets, videos and project/drawing-based problems are used.

---

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:

- Illustrate common survey systems
- Identify and select attributes for proper site orientation
- Name divisions of a section of land
- Identify 10 site plan items found on drawings
- Use graphic conventions to represent building practices and components in drawings
- Construct and assemble a site plan drawing using accurate drafting standards
- Organize and store documents applying the appropriate filing procedures

---

**Program Learning Outcomes:**
This course serves the following programs:

- Architectural Technician - Certificate
- BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

#### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
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**Total 100**

### Learning Environment/Type

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<tr>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>20</td>
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</table>

**Enter Total Hours 30**

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• CAD and Architectural drafting standards
• Site planning
• Legal descriptions
• Site plan requirements
• Site plan layout

VCC Education and Education Support Policies
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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
**Course Name:** Codes and Regulations 1

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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<td>CAD and BIM Technologies</td>
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**Course Pre-requisites (if applicable):**

Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
☑ No ☐ Yes (details below):

**Course Description:**

In this course, students are introduced to the B.C. Building Code (BCBC) Part 9 and the National Building Code as related to the Canadian Wood-Frame House Construction Guide by CMHC. Students develop knowledge in acceptable building practices and standards of light wood frame construction.
Instructional Strategies:
Lectures, handouts, group/team participation, videos and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• List the stages of construction
• List standard lumber sizes used in wood frame construction
• Describe 3 categories found in Division B of the BCBC
• Identify and list the sections found in Part 9 of the BCBC
• Identify and list definitions used in the BCBC
• Draw sketches of components in assemblies

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Evaluation/Grading System

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Total 100

Learning Environment/Type

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</table>

Enter Total Hours 30

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- B.C. Building Code, Part 9
- Introduction to wood frame construction
- Healthy housing building practices
- The construction process
- Building component and assemblies practices

VCC Education and Education Support Policies

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FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
**Course Name:** Construction Assemblies 1

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

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**Course Pre-requisites (if applicable):**

Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271, 1272

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- No  
- Yes (details below):

**Course Description:**

In this course, students are introduced to conventional building assemblies and building envelope design and materials used in the coastal climate of B.C. Students prepare a typical wall section required for course DRFT 1274, Single Family Residences.
Instructional Strategies:
Lectures, handouts, group/team participation, props, videos and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Identify and list the major building assemblies
• Identify and list materials in the building envelope
• Use residential building codes to create graphical representation of structures
• Identify and list the components in a section view
• Draw and complete a section view using accurate drafting standards

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
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<th>Grading System</th>
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**Components and Weighting of the Assessment/Evaluation Plan:**

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<th>Percentage</th>
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<td>Assignments</td>
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<td>Complete and identify all building components in a section view</td>
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**Learning Environment/Type**

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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 30

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Wood framing and Construction
- Residential building codes, BCBC Part 9
- Building assembly systems used in the coastal climate of BC
- Building envelopes
- CAD and Architectural drawing conventions
- Section views

VCC Education and Education Support Policies

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**Course Name:**  Single Family Residences

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

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<tr>
<th>Course Pre-requisites (if applicable):</th>
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<tr>
<td>Level 1: DRFT 1010, 1011, 1012, 1013</td>
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<td>Level 2: DRFT 1270, 1271, 1272, 1273</td>
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<table>
<thead>
<tr>
<th>Course Co-requisites (if applicable):</th>
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<table>
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<tr>
<th>PLAR (Prior Learning Assessment &amp; Recognition)</th>
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<tbody>
<tr>
<td>☒ No ☐ Yes (details below):</td>
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**Course Description:**

In this course students build on architectural residential design practices by applying the appropriate codes and theory of wood framing for residential structures. Students develop knowledge in acceptable standards for preparing a set of framing drawings of a residential wood framed residence.
Instructional Strategies:
Lectures, handouts, group/team participation, field trip, props, videos and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Construct residential drawing plans using accurate drafting standards
• Assemble and construct building views using the correct CAD tools and formats
• Use and apply residential building codes to create graphical representations of structures
• Use graphic conventions to represent building practices and components in drawings
• Research vendor suppliers to find correct products for drawings
• Apply vendor specifications to drawings
• Collect and classify a list of components to create schedules in drawings
• Use tables to calculate and select structural framing requirements

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Learning Environment/Type

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<tr>
<th>Instruction Type</th>
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<td>6</td>
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<tr>
<td>Exam</td>
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<tr>
<td>Project</td>
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<td></td>
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</table>

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
### Course Topics and Sequence Covered:

- CAD and Architectural drafting standards
- Room layouts
- Floor framing methods
- Span and framing tables
- Floor plans
- Foundation plans
- Stairs
- Elevations
- Roof styles
- Door and window schedules

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**VCC Education and Education Support Policies**

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To find out how this course transfers, visit the BC Transfer Guide at [www.bctransferguide.ca](http://www.bctransferguide.ca).

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<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
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</table>
Course Name: Codes and Regulations 2

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

Course History:
School or Centre: School of Music, Dance and Design
Department: CAD and BIM Technologies
Year of Study: 1st Year Post-secondary
Course Number: DRFT 1275
Number of Credits: 1.0

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013
Level 2: DRFT 1270, 1271, 1272, 1273, 1274

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)
☒ No ☐ Yes (details below):

Course Description:

In this course students are introduced to Part 9 of the Vancouver Building Bylaw (VBBL) and to the Zoning and Development Bylaw RM-5 as it applies to multi-family dwellings. Students develop a preliminary site plan layout to determine the allowable building coverage and size as determined by the VBBL.
Instructional Strategies:
Lectures, handouts, group/team participation, on-line resources, videos, and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Select and apply the VBBL and the Zoning Bylaw
- Apply zoning bylaw requirements for a plot plan
- Calculate building areas and floor space ratios (FSR)
- Draw and construct building outlines to a plot plan

Program Learning Outcomes:
This course serves the following programs:

- Architectural Technician - Certificate
- CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Components and Weighting of the Assessment/Evaluation Plan:

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### Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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| Enter Total Hours | 30 |

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Introduction to the VBBL and Part 9
- Introduction to Zoning & Development Bylaw RM-5
- Building areas and floor space ratios (FSR)
- Multi family residential building construction practices
- Plot plan layout

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Construction Assemblies 2

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

School or Centre: School of Music, Dance and Design  Department: CAD and BIM Technologies

Course History: New Course  Year of Study: 1st Year Post-secondary

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  No  Yes (details below):

Course Description:
In this course students build knowledge by applying more advanced methods of building assemblies. Students prepare various assembly views required for course DRFT 1277, Multi Family Residences.
Instructional Strategies:
Lectures, handouts, group/team participation, props, videos, and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Identify areas requiring assembly views
• Locate and use the appropriate assemblies from the Best Practice Guide
• Modify assembly views to comply with Part 9 of the VBBL
• Draw and complete detail views using accurate drafting standards
• Interpret sentences from Part 9 of the VBBL into graphical representations

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

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### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Introduction to CMHC Best Practice Guides
• Typical building assemblies
• VBBL Part 9 requirements
• Section and detail views

VCC Education and Education Support Policies

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Multi Family Residences

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

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Course Pre-requisites (if applicable):

Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  
☒ No ☐ Yes (details below):

Course Description:

In this course students apply the appropriate codes and zoning requirements as set out in the Vancouver Building Bylaw (VBBL) for multi-family wood framed structures. Using previous courses, DRFT 1275 and DRFT 1276, students follow a typical design workflow process to prepare a set of architectural drawings.
Instructional Strategies:
Lectures, handouts, group/team participation, field trip, props, videos and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Apply City of Vancouver building plan requirements
• Apply project requirements within the RM-5 zoning regulations
• Apply project specifications and building codes to residential drawings
• Draw and apply building construction practices used in multi family dwellings
• Design and draw room layouts and spaces in floor plans
• Develop interior elevation views
• Finalize the FSR site area requirements
• Apply various exterior finishes on elevation views
• Research and present a building product for a group presentation

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

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Total 100%

### Learning Environment/Type

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<th>Hours Per Instruction Type</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>18</td>
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<td>6</td>
<td>Building Trade Show</td>
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<td>L - Classroom</td>
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<td>Field trip to townhouse construction site</td>
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</table>

Enter Total Hours 105

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Drawing requirements for the city of Vancouver
- Zoning & Development Bylaw, RM-5
- Typical drawing plan procedure
- Framing methods for multi family residences
- Roof framing methods
- Multi level stair arrangements
- Vancouver Building Bylaw, Part 9
- Room design and layout strategies
- Interior elevations
- Interior and exterior finishes
- Plot plans for multi family zoning
- Wall types and assemblies

VCC Education and Education Support Policies

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

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| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
Course Name: Drawing Plan Reading

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CADD and BIM Technologies
Year of Study: 1st Year Post-secondary
Course Number: DRFT 1278
Number of Credits: 0.5

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277

Course Description:

In this course, students are introduced to the basic skills needed to read, study and understand construction drawings.
Instructional Strategies:
Lectures, handouts and resource materials are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Read and interpret a set of construction drawings
• Describe and Identify standard symbols used in construction drawings
• Define and interpret standard terminology and abbreviations used in construction drawings

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate
• CAD and BIM Technician - Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
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## Components and Weighting of the Assessment/Evaluation Plan:

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<td>Quizzes/Tests</td>
<td>40</td>
<td>Reading a set of Structural &amp; Concrete drawings of a Industrial building</td>
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<td>Quizzes/Tests</td>
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**Total** 100

## Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 18

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Drafting techniques & conventions used in construction drawings
- Standard Symbols used in construction drawings
- Standard Terminology and Abbreviations used in construction drawings

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FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
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</table>
Course Name: Technical Communications

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CAD & BIM Technologies
Year of Study: 1st Year Post-secondary

New Course
Name of Replacing Course (if applicable):
Course Number: DRFT 1370
Number of Credits: 1.0

Course Pre-requisites (if applicable):
Admission to the program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition) No Yes (details below):

Course Description:
In this course, students will learn to communicate clearly, concisely and correctly in writing and in person in various technical communication situations.
**Instructional Strategies:**
Lecture, group activities, instructional videos, handout materials, case studies will be used.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:
- Plan and organize communications according to the purpose and the audiences.
- Use proper language and style suitable to the assignment.
- Demonstrate the practice of good technical writing.
- Plan and organize professional presentations and reports.
- Describe and use effective interpersonal communication skills.

**Program Learning Outcomes:**
This course serves the following programs:

- Architectural Technician Certificate
- Civil/Structural Technician Certificate
- Steel detailing Technician Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Evaluation/Grading System

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<tr>
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### Components and Weighting of the Assessment/Evaluation Plan

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<th>Evaluation Plan</th>
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<td>Presentation</td>
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**Total 100**

### Learning Environment/Type

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<tbody>
<tr>
<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>20</td>
<td></td>
</tr>
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</table>

**Enter Total Hours 30**

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Learn to analyze the audience.
• Site review reports and presentations.
• Professional email techniques.
• Site Supplemental Instructions.
• Write and respond to Requests for Information.
• Review major specification sections.
• Technical writing concepts.
• Drawing revision notes

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Codes and Regulations 3

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD and BIM Technologies  
Year of Study: 1st Year Post-secondary

Course History: New Course
Name of Replacing Course (if applicable): No

Course Number: DRFT 1371  
Number of Credits: 1.0

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278
Level 3: DRFT 1370

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  
☐ No  ☐ Yes (details below):

Course Description:

In this course, students are introduced to Part 3 of the British Columbia Building Code (BCBC) as it applies to commercial occupancies. Students prepare a floor plan layout for a small convenience store required for course DRFT 1373, Commercial Retail Buildings.
Instructional Strategies:
Lectures, handouts, group/team participation, on-line resources, videos and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• List 5 major occupancy classifications and identify the corresponding group designation in BCBC, Part 3
• Research and select commercial equipment
• Select and organize floor plan equipment allowing proper means of egress
• Apply Architectural drawing standards for commercial drawings
• Apply project specifications

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Components and Weighting of the Assessment/Evaluation Plan:

<table>
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<tr>
<th>Type</th>
<th>Percentage</th>
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<tr>
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<td>1 Floor plan drawing for a mercantile store</td>
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<tr>
<td>-</td>
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<td></td>
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Learning Environment/Type

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Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Introduction to Part 3, BCBC
- Occupancy classifications
- Building requirements for persons with disabilities
- Exits
- Architectural drawing conventions for commercial drawings
- Project specifications

VCC Education and Education Support Policies

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<th>Date Approved by Education Council</th>
<th>Date Approved by VCC Board (if applicable)</th>
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</table>
Course Name: Construction Assemblies 3

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

<table>
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<th>Department:</th>
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<td>CAD and BIM Technologies</td>
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Name of Replacing Course (if applicable):

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<td>DRFT 1372</td>
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Course Pre-requisites (if applicable):

Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278  
Level 3: DRFT 1370, 1371

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  
☐ No  ☐ Yes (details below):

Course Description:

In this course, students build knowledge from previous courses by applying advanced methods of building assemblies for concrete block and light steel framed buildings. Students prepare various assembly views required for course DRFT 1373, Commercial Retail Buildings.
Instructional Strategies:
Lectures, handouts, group/team participation, guest speaker, videos and problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Develop assembly views from project specifications
• Identify and draw components in detail views
• Arrange detail views using architectural drawing practices

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Evaluation/Grading System

<table>
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<tr>
<th>Grading System</th>
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Components and Weighting of the Assessment/Evaluation Plan:

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<tbody>
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<td>Assignments</td>
<td>90</td>
<td>6 Detail views of equal value</td>
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<td>Quizzes/Tests</td>
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Total 100

Learning Environment/Type

<table>
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<th>Instruction Type</th>
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<th>Comments</th>
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<tbody>
<tr>
<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>2</td>
<td>Guest speaker</td>
</tr>
</tbody>
</table>

Enter Total Hours 30

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Building assembly systems used for commercial building applications
• Project specification requirements
• Roofing materials & flashing details for flat roofs & parapets
• Section & detail views

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<tr>
<td>Date Approved by Education Council:</td>
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**Course Name:** Commercial Retail Buildings

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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<th>Department:</th>
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<td>CAD and BIM Technologies</td>
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| **Name of Replacing Course**  
(if applicable): | **Course Number:** DRFT 1373  
**Number of Credits:** 3.0 |

**Course Pre-requisites (if applicable):**

Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278  
Level 3: DRFT 1370, 1371, 1372

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
☑ No ☐ Yes (details below):

**Course Description:**

In this course, students are introduced to commercial drawing and detailing practices as they apply to concrete block and light steel framed buildings. Students prepare a set of architectural drawings for a retail convenience store.
Instructional Strategies:
Lectures, handouts, group/team participation, props, field trip, videos and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Construct architectural commercial drawings using accurate drafting standards
- Construct and generate building views of structures
- Employ the use of building codes for commercial buildings
- Design and draw a parking plan
- Design and draw a low sloped roof plan

Program Learning Outcomes:
This course serves the following programs:

- Architectural Technician - Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

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#### Components and Weighting of the Assessment/Evaluation Plan:

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<td>A set of 4 commercial drawings of equal value</td>
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### Learning Environment/Type

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<td>6 Field trip to commercial building site</td>
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Enter Total Hours 90

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Concrete block masonry & light steel framing
- Roofing materials & flashing details for flat roofs & parapets
- Sections and details for concrete block and light steel framed buildings
- Parking spaces for mixed retail and residential outlets
- Elevations commonly used for Commercial projects
- Door and window schedules used for Commercial projects
- Low sloped roofs and drainage

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</table>

Course Name: Introduction to 3D and BIM

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD and BIM Technologies  
Year of Study: 1st Year Post-secondary

Course History:
Name of Replacing Course (if applicable):

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013  
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278  
Level 3: DRFT 1370, 1371, 1372, 1373

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition):
☐ No  ☑ Yes (details below):

Course Description:

In this course, students are introduced to 3D modeling building their skills to incorporate the addition of machine components completed earlier in course DRFT 1011 by developing 3D solids from 2D drawings to construct an assembly drawing. An introduction to Building Information Modeling (BIM) software enables students to construct a parametric model by including all interior and exterior components, entourage and lighting features to produce visually accurate renderings and other drawing documents.
**Instructional Strategies:**
Self-paced workbook, lecture, demonstrations, group activities, and student research will be used.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:

- Construct models using 3D CAD software
- Construct three dimensional wire frame, surface and solid models
- Assemble and organize a 3D assembly drawing from solid model components
- Identify presentation drawing types
- Produce realistic renders of models using 3D CAD software
- Produce construction documents

**Program Learning Outcomes:**
This course serves the following programs:

- Architectural Technician - Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
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#### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Percentage</th>
<th>Evaluation Plan</th>
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<tr>
<td>Assignments</td>
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<tr>
<td>Quizzes/Tests</td>
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Total 100

### Learning Environment/Type

<table>
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<th>Instruction Type</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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<td>S - Self-paced</td>
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Enter Total Hours 105

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Introduction to AutoCad 3D
• Wire frame, surfaced and solid modeling
• Assembly drawings
• Parts List
• Presentation Drawings
• Introduction to Sketch-Up
• Introduction to 3D CAD & BIM
• 3D building model assemblies
• Rendering 3D models
• Construction documents

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<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

Course Name: Commercial Layouts Using BIM

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CAD and BIM Technologies
Year of Study: 1st Year Post-secondary

Course History:

Name of Replacing Course (if applicable):
Course Number: DRFT 1375
Number of Credits: 6.0

Course Pre-requisites (if applicable):
Level 1: DRFT 1010, 1011, 1012, 1013
Level 2: DRFT 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278
Level 3: DRFT 1370, 1371, 1372, 1373, 1374

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  No  Yes (details below):

Course Description:

This course introduces students to design principals relating to the arrangement of offices and access for persons with disabilities using Part 3 of the British Columbia Building Code (BCBC). Arrangements are developed using 3D BIM modeling software for the final development of construction working drawings.
Instructional Strategies:
Lectures, handouts, group/team participation, field trip, videos and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Employ the use of commercial building codes for means of egress
• Construct models using 3D CAD software
• Construct drawings from 3D CAD software using accurate drafting standards
• Construct and organize building views using the correct CAD tools and formats
• Apply graphic conventions to represent building components in drawings
• Create schedules using CAD software tools
• Research vendor suppliers to find correct products for their model
• Use and modify vendor models
• Create a project drawing list of deliverables

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician - Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if ‘Other’:</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
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</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
<th>(provide a brief explanation for each component especially if value exceeds 35%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10</td>
<td>2 assignments of equal value</td>
<td></td>
</tr>
<tr>
<td>Exam</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td>60</td>
<td>A set of 5 commercial drawings of equal value</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>

| Enter Total Hours | 180 |

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

• Architectural standards for office buildings
• Building codes Part 3 – building requirements for persons with disabilities
• Using 3D BIM software to develop model of project
• Family components
• Importing 2D CAD files to 3D BIM software
• Vendor drawings
• Locker room layouts
• Washroom layouts
• Office layouts
• Interior elevations
• Room finish schedules
• Suspended ceilings
• Develop drawing deliverables from 3D model

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

Proposal for New Program

Name of Proposed Program: Civil/Structural Technician Certificate

Additional material may also be included as appendices. For information about submitting the completed Proposal for New Program, please contact the Centre for Instructional Development.

Curriculum development is a consultative process. Therefore, it is understood that this is a living document which will be refined as it moves through the development process.

A. Concept

Department Leader: Bruce McGarvie
Faculty: School of Music, Dance and Design
Dean: Debbie Sargent (Interim)
Proposal Date: September 2016

If this is a joint educational offering, name of other institution (refer to Affiliation Agreement Policy C.3.10):

Purpose and Context

1. Describe in detail the program’s objectives and a description of the program outcomes, including a list of the occupations or roles that graduates will be prepared for:

This program will replace the Drafting Technician Certificate – Architectural, Civil, Structural. Graduates of this new program will have developed the Computer Aided Drafting (CAD) and Building Information Modeling (BIM) skills which will enable them to enter the workforce in many areas as team members in: consulting engineering firms, architectural firms, municipal, provincial or federal offices, as well as in private industry for developers and construction companies. Graduates will work on a wide variety of structures, energy infrastructure, highway construction and development work.

The certificate will substantially satisfy the criteria for program accreditation by the Applied Science Technologists and Technicians of BC (ASTTBC), with completion of the criteria obtained with the second year CAD and BIM Diploma program.

The successful graduates can also ladder directly into the 24-week CAD & BIM Technician Diploma program.

This program expands the level of current technical processes, with a greater focus on BIM.

The program outcomes are:

• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D Building Information Modeling (BIM) and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
Proposal for New Program

2. Explain how this program adheres to principles and priorities as indicated in the College’s strategic, educational or ministerial planning documents:

The design of this new program supports the College’s Strategic Initiatives and Education Plan, as demonstrated by the following:

- The program is designed to support the BC Government’s “Labour Market 2020” forecast for increased demand in the technical and trades segment for the energy industry infrastructure, LNG and major hydro projects.
- The new program aligns with the learning outcomes outlined in the accreditation standard for Applied Science Technologists and Technicians of BC (ASTTBC) and the Technology Accreditations Canada (TAC). The goal is to have the Certificate program satisfying most of the objectives required for accreditation, to be completed with the CAD & BIM Technician Diploma.
- This program addresses the special needs of newcomers to Canada as well as international students looking to gain knowledge in the local industry.
- This program is well suited for students with certain physical disabilities provided the computer work station can be adapted for their use. This reduces barriers for those in wheelchairs or with walking difficulties.
- This program is designed and updated to include a higher level of technical knowledge and an increased ability in BIM. As such, it is more relevant to industry needs.
- The focus of this new program is to provide relevant high-quality curriculum that leads to student success, and to maintain a positive reputation in the community.

3. Identify how the proposed program supports VCC’s mission, core values, and strategic objectives?

This new program will provide the most current training required by the building and design industry today. The certificate will also provide access to those wishing to pursue a CAD & BIM Technician Diploma, and thus achieve ASTTBC accreditation.

VCC has many supports for students to facilitate success. The CAD & BIM Technologies Department refers students to these services in support of student success. Several strategies are built into the program to help students gain success.

The CAD & BIM Technologies Department has many partnerships and collaborations. Numerous informal affiliation relationships exist in support of student placement. Many engineering firms, architectural firms and contracting/development companies in the greater Vancouver area seek our graduates for placement.

The regulatory body ASTTBC and our Program Advisory Committee have been asking VCC to develop an accredited program for some time now. We value the positive partnership we have with these stakeholders.

The Drafting program has historically achieved the highest standards of graduates. As such, it is known in the design and building community for its positive reputation. This new design and technological upgrade to the program will continue this tradition in the years to come.

4. How does this program relate to and/or support other programs at VCC?

This program can be a gateway for students who become interested in a higher level of engineering. Students could enter the first year engineering program if they meet the entrance requirements. Conversely, for those students who enter first year engineering and want a program that is more technically focused, the Civil/Structural Technician Certificate program would be a good option. International students and newcomers to Canada who have completed the ESL program, and local students who have completed the ABE program, can also enter this program.
Proposal for New Program

Program Need

5. What educational gap, if any, is this program intended to fill?

There is a consistent demand for Civil, Structural, drafting, CAD and BIM technicians in British Columbia. The drafting program at VCC has been providing skilled drafters for the engineering and construction industries for over five decades. With this new program, the department will be well suited to continue to provide highly skilled technicians ready for today’s market place.

6. What evidence is there of student demand for the program?

The Drafting programs at VCC have been successfully delivered each and every year for over half a century, producing the drafters that have assisted in building this city and this province over that time. Many of the local companies delivering drafting and CAD services are either owned by former grads, or have former grads in senior management positions. From a purely statistical standpoint, our programs over the past five years have attracted students as shown in the table below:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Architectural Credential</th>
<th>Civil/Structural Credential</th>
<th>Steel Detailing Credential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Certificate</td>
<td>Diploma</td>
<td>Certificate</td>
</tr>
<tr>
<td>2015</td>
<td>20</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>2013</td>
<td>20</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>2012</td>
<td>19</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>2011</td>
<td>18</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Average/year</td>
<td>19</td>
<td>5</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: VCC Registrar’s Office

7. What evidence is there of labour market, professional or community demand for the graduates (report results)?

From Employment and Social Development Canada projection (COPS) Sept 2015 (Appendix 1):

“Over the 2013-2022 period, an occupation will be in excess demand (a shortage of workers) if the projected number of job openings is significantly greater than the projected number of job seekers. An occupation will be in excess supply (a surplus of workers) if the projected number of job openings is smaller than the projected number of job seekers. For Technical Occupations In Architecture, Drafting, Surveying And Mapping, over the 2013-2022 period, job openings (arising from expansion demand and replacement demand) are expected to total 16,340 and 10,998 job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.”
Proposal for New Program

From BC government’s Work BC labour market outlook Sept. 2015 (Appendix 2):

Expected number of job openings (2012 - 2022)

<table>
<thead>
<tr>
<th>Year</th>
<th>Job Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>300</td>
</tr>
<tr>
<td>2017</td>
<td>300</td>
</tr>
<tr>
<td>2022</td>
<td>300</td>
</tr>
</tbody>
</table>

Cumulative number of new jobs (2012 - 2022) 3,300

% job openings from replacement 66%
% job openings from expansion 34%

Expected growth in employment demand
Forecasted demand for workers in this field.

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>7,700</td>
</tr>
<tr>
<td>2017</td>
<td>8,200</td>
</tr>
<tr>
<td>2022</td>
<td>8,800</td>
</tr>
</tbody>
</table>

Projected Unemployment rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>5.9%</td>
</tr>
<tr>
<td>2017</td>
<td>5.8%</td>
</tr>
<tr>
<td>2022</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Estimated demand for workers in 2015 in B.C. 7,900

Competitiveness of job Market in B.C.
Ratio of number of unemployed people to number of new job openings.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2:1</td>
</tr>
<tr>
<td>2017</td>
<td>1:1</td>
</tr>
<tr>
<td>2022</td>
<td>1:1</td>
</tr>
</tbody>
</table>

Opportunities outlook information is based on BC Labour Market Outlook 2012-2022
Proposal for New Program


While BC’s technology sector is growing and technology jobs are becoming strategically critical to our knowledge-based economy, other industrialized nations are also in the hunt for such workers. In the Manpower Group’s most recent Talent Shortage Survey (2012), they asked employers throughout the world about which jobs they are having the most difficulty filling. The bottom line is that there is extremely strong competition for technical talent, with “top ten” lists dominated by jobs in Science, Technology, Engineering and Mathematics, including skilled trades.

### Occupation  Projected Unfilled Positions by 2022 |
- Geological and mineral technologists: 375
- Drafting technologists and technicians: 315
- Heavy equipment operators (except crane): 305
- Mapping and related technologists and technicians: 280
- Geological engineers: 245

8. Anticipated start date of program: September 2016

### Competitive Analysis

9. Which related programs are available in the lower Mainland and/or on-line: how do they compare in terms of focus, intended outcomes, length, costs and size?

There are 5 related programs in the lower Mainland, offered by Kwantlen Polytechnic University (KPU), British Columbia Institute of Technology (BCIT), and Brighton College:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Credential</th>
<th>Credits</th>
<th>Cost*</th>
<th>Duration</th>
<th>Pass marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPU</td>
<td>ARCHITECTURAL CERTIFICATE</td>
<td>32</td>
<td>$4487.52</td>
<td>2 SEMESTERS</td>
<td>50% per course</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65% GPA</td>
</tr>
<tr>
<td>KPU</td>
<td>STRUCTURAL CERTIFICATE</td>
<td>32</td>
<td>$4487.52</td>
<td>2 SEMESTERS</td>
<td>50% per course</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65% GPA</td>
</tr>
<tr>
<td>BCIT</td>
<td>ARCHITECTURAL CADD &amp; GRAPHICS TECHNICIAN CERTIFICATE</td>
<td>80</td>
<td>$6248.80</td>
<td>40 WEEKS</td>
<td>50% per course</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65% GPA</td>
</tr>
<tr>
<td>BCIT</td>
<td>STRUCTURAL CADD &amp; GRAPHICS TECHNICIAN CERTIFICATE</td>
<td>80</td>
<td>$6248.80</td>
<td>40 WEEKS</td>
<td>50% per course</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65% GPA</td>
</tr>
<tr>
<td>Brighton College</td>
<td>ARCHITECTURAL DRAFTING AND DESIGN SPECIALIST</td>
<td>Not Available</td>
<td>$14,550.00</td>
<td>34 WEEKS</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

* Includes Student Association fee
Proposal for New Program

10. Is this concept supportable and sustainable with existing and/or available resources?

Yes. The current instructors, equipment and support will not need to change.

11. Is this a cohort, selective entry, or open access program? How will the program be rolled out if you are not using a cohort model?

Yes, this will be a cohort based program.

12. What is the expected length of program (in months/years)? What is the maximum allowable time for completion?

The expected length remains unchanged at 10 months, with 2 years allowed for completion.

13. How many students would you expect to enroll in each year of the program?

We would expect 18-20 students in the Civil/Structural Technician Certificate program.

Admission and Delivery

14. Provide a detailed list of admission requirements, including language proficiency levels and assessment scores.

Seats are offered to applicants who have met all admission requirements on a first-qualified, first-served basis.

- Grade 12 graduation or equivalent is required (applicants who have completed Drafting 11 and 12 in high school can apply for direct entry into Level 2 of the program).
- Apprenticeship and Workplace Math 11 or Pre-Calculus Math 11 or take the Request for Transfer Credit PDF form. Requests for diploma eligibility received after the program has started will not be approved.
- 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 which includes a Canadian Language Benchmark of Listening 8, Speaking 7, Reading 8 and Writing 7 or better.
- VCC CAD Citation graduates may insert into level 2 of the program.

15. Will the structure of the program allow for full-time, part-time, evening, weekend, on-line, mixed-mode delivery methods, or a combination of any of these? (Identify each as appropriate).

The program structure will allow for full time, days and/or evenings, Monday to Friday. If enrollments demand more classes, both a day class and an evening class can run concurrently.

16. Will the structure of the program allow for multiple entry and exit points? If there are multiple entry points, please specify requirements for each.

The intended program allows for a student to exit after the Level 1 of the Civil/Structural Technician Certificate program and enter the Citation program at Level 2. Conversely, intended program allows for a Citation student to enter the Level 2 of the Civil/Structural Technician Certificate program after completing Level 1 of the Citation program.
Proposal for New Program

Student Profile

17. Who are your target students (age, gender, educational background, work experience)? Where do they come from (recent high school graduates, mature students, transfers from other institutions)? How do you plan to recruit or attract these students? Are there other characteristics applicants should have that you identify as important?

We have three (3) primary target populations of students.
1. Recent high school graduates or 1st year university/college students looking for a career in the technology design professions.
2. Those in their mid to late twenties who are looking for post-secondary training to obtain a better career.
3. Those trades people who have been hurt or laid-off and are looking for retraining through Work Safe or EI, to use the hands-on knowledge they have gained and combine that with technical training to be able to produce construction drawings.

Recruitment activities will include:
- a targeted social media and online campaign
- visiting the area secondary school and meeting with drafting teachers and counselors
- having teachers visit the college and tour our department
- trade shows
- VCC Info nights
- CAD & BIM Technologies Department information sessions
- hosting high school students on Pro-D days and Spring Break

Other important characteristics that applicants should have would include:
- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- An interest in all aspects of architecture, engineering, general construction and related fields.

18. How will the program address the needs of under-prepared students? How will you get these students into appropriate upgrading courses or programs? What options are available...

Students not meeting the program pre-requisites will be able to meet with someone from the Advising Department to determine which courses will help them to best meet the prerequisites.

19. How will the program address equity by decreasing systemic barriers? Is this type of program traditionally or historically underrepresented in specific cohort groups? (e.g., gender and/or age imbalance, First Nations)

How will the program address these issues?

Although the engineering and fabrication industry traditionally admits a larger percentage of male applicants than female applicants, females are strongly encouraged to apply. Marketing strategies are being developed to attain more gender balance. The program may be suited for those applicants with physical barriers (wheelchairs, crutches, walkers, etc.) that meet the program requirements as per admissions policy. We are encouraging First
Proposal for New Program

Nations students to apply by working closely with the Aboriginal Services Department. Much of the northern development is slated to take place on First Nation territory.

Quality

20. How will the program ensure educational effectiveness (e.g., retention, progression, completion)?

VCC has been a leader in training drafters for more than 50 years. Our well-respected and longstanding Program is widely recognized by many of the industry leaders with a great number of Department managers and company partners as former graduates of the program. Historically there has been some attrition within Level 1 of the program. Based on these past attrition rates in first level, we plan to ‘overfill’ our first year to 20 students. We expect there will be a large interest in the Diploma program due to our anticipated accreditation from ASTTBC. This will motivate students and increase retention.

21. Describe how the proposed program incorporates work experience, practicum, clinical practice, etc. (if applicable):

Learning is fostered through seminars, lectures, labs, and problem based learning. Students have opportunities to apply knowledge and practice various abilities while entering various design competitions, for example Skills Canada BC AutoCAD competition.

Although the program does not have a formal practicum component as the industry does not lend itself to a consistent placement model, there are frequent practicum positions that are offered to the department by our PAC members firms and industry relationships. The number and frequency varies from year to year as industry conditions vary.

The program is designed to foster the development of professionalism, a commitment to lifelong learning, and dedication to an ethical profession.

22. Does the program create opportunities for students to transfer credit and/or ladder from/to other programs?

Yes, students completing courses at other institutions can be awarded transfer credits provided they meet the transferability requirements established by the British Columbia Drafting Technologies Articulation Committee of BCCAT.

Certificate graduates will have the opportunity to ladder to the CAD and BIM Diploma program. In addition, graduates may ladder into the Science or Engineering programs here at VCC or into other degree and diploma programs such as BCIT’s Civil engineering degree or Technologist Programs, provided they meet the entrance requirements. The student needing some higher level math or science prerequisite courses could upgrade here at VCC as part of their academic pursuit.

23. Will this program allow students to continue with further study? Describe laddering, bridging, or post-credential continuation of education.

As above...

24. Does this program include Prior Learning Assessment and Recognition (PLAR) as per Policy ##?

PLAR is included for two courses in Level 1, CAD Drafting – Fundamentals DRFT 1010 and CAD Drafting – Applied DRFT 1011. PLAR for either of these courses is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty.
Proposal for New Program

25. Explain how current faculty are qualified to deliver the program. If they are not, how will this issue be addressed?

As per the VCC Qualifications for Faculty Members policy and procedures, all current faculty members meet the area hiring criteria and have the appropriate balance of employment experience, academic and/or professional/industry credentials, with a commitment to teaching excellence.

Consultation Overview

26. With whom have you consulted internally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of feedback (refer to Appendix XX):

We have consulted with:

- Dean of Design, Graham Webber, many times in the last year. Graham has indicated his support and stated that the VCC PAC has been advocating for this for some time now.
- Dean of Health Sciences, Debbie Sargent on Sept. 1st and 21st, 2015. Debbie has indicated her support as well.
- Dean for Centre for Instructional Development, Susie Findlay (several meeting in the last year). Susie has indicated the support of her area to provide assistance required for program development.
- Instructional Associate for Centre for Instructional Development, Garth Manning (numerous meetings and continual consulting). Garth has indicated the support of his area to provide assistance required for program development.
- Marketing & Communication Officer, Kristy Neville (several meetings in the last year). Kristy has indicated her support and is working on new initiatives to support the new programs.
- Student Recruitment Specialist, Niki Scarfo on Sept. 8th, 2015. Niki has indicated her support and is working on new initiatives to support the new programs.
- Interim Director, Marketing and Communications, Karen Wilson (Oct 2nd, 2015). Karen has indicated her support for moving forward with these programs.
- Interim Registrar and Director Institutional Research, Brian Beacham (Oct 6th, 2015) Brian has indicated the support of his areas and to provide assistance required for proposals.
- Associate Registrar Records, Raymond Kaan (Oct 2nd, 2015) Raymond has indicated the support of his areas and provides new course names and numbers for proposals.
- Dean, International & Immigrant Education, Tina Chow (Oct 6th, 2015) Tina has indicated her support for moving forward with these programs.
- Director, Aboriginal Services, Kory Wilson (Nov 17th, 2015) Kory has indicated his support for moving forward with these programs.

27. With whom have you consulted externally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of discussions.

The VCC Program Advisory Committee (PAC) was consulted in November 2014 and February 2015 to present this new program for feedback. The PAC encouraged the department to proceed. A follow up meeting to discuss the results of the curriculum development work was held Oct 8th, 2015. The PAC is in full support of the new programs, and feels the new technology additions and program redesign will make the program stronger, more competitive, especially due to the potential for the accreditation from ASTTBC. Geoff Sale of the ASTTBC attended the college in January 2015 and is also in full support and has encouraged the department to apply for accreditation having determined the proposed new program is aligned with the criteria. Charles Joyner, Registrar of ASTTBC, has forwarded their letter of support which is included with this proposal (see letter of support attached to this submission).
Proposal for New Program

B. Business Case

Institutional Resources

1. What expertise, equipment, facilities and library resources will the program require to support student learning? Ensure that any required new resources in these areas are identified in the Costs section (I).

   The only addition will be Program Assistant support

2. Outline anticipated requirements for equipment, specialized space, etc.: (classrooms, labs, shops, general space)

   None will be required

Costs and Revenue (to be prepared by Dean/Associate Dean in consultation with developer)

Budgetary requirements are provided for information purposes only. Program approval does not ensure budgetary support.

Non-Recurring Costs

What will be the costs? Please provide accurate estimates.

Academic non-recurring estimated start-up costs (e.g., equipment costs/other)

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program development</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Curriculum development</td>
<td>All courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Faculty recruitment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff – PD / enrichment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Capital Costs (Equipment, Renovations)

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
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<td></td>
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</table>

Totals

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Non-Recurring</td>
<td></td>
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<td></td>
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<tr>
<td>Capital Costs</td>
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<td>Totals</td>
<td></td>
<td></td>
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</table>
Proposal for New Program

**Ongoing Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Same as current</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required service courses*</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Support</td>
<td>new</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized IET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized IT Support</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab operating costs - Salary</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lab operating costs – Non-Salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing research costs</td>
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<td></td>
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</tr>
<tr>
<td>Other</td>
<td>Same operational costs as current</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Grand Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Summarize costs identified in Appendix XX Consultations, not including Library costs

*Explain required service courses

**Revenue**

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Courses</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicate the specific source(s) of funding for development, both internal and external.

Will apply for Curriculum development funding in the spring

Indicate the specific source(s) of funding for delivery, both internal and external.

Tuition + base funding

Signature of Dean submitting concept document   Date
Proposal for New Program

APPENDICES

1. Employment and Social Development Canada projection (COPS) Sept 2015
4. Letter of support from ASTTBC
Civil/Structural Technician Certificate

Program Content Guide

Effective Date: September 2016
Purpose

Graduates of this program will have developed the drafting and 3D Building Information Modeling (BIM) skills that will enable them to work as team members in consulting engineering firms, architectural firms, municipal, provincial or federal offices, as well as in private industry. Graduates will be prepared to work on a wide variety of structures, highway construction and real estate development work.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ Computer Aided Drafting (CAD) and three dimensional modelling systems skills to produce drawings from data, designs and/or specifications.
- Demonstrate an understanding of drafting and 3D modeling skills and conventions.
- Develop drafting, 3D Building Information Modeling (BIM) and related trade skills and knowledge.
- Utilize critical thinking, team building and interpersonal communication skills.
- Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
- Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
- Use structural engineering theories and BIM practices to prepare engineering drawings for three dimensional models of structures, which incorporate reinforced concrete and structural steel.
- Prepare a comprehensive professional portfolio.
- Prepare a résumé and letters of application and perform other related job search skills.

Instructional Activities, Design and Delivery Mode

This course uses project based learning strategies with instructional presentations and laboratory work using Autodesk Revit Structure, AutoCAD and Civil 3D software. Students may be required to do assignments at home and lab work outside class time on both theory and individual projects.

Program Duration

Ten (10) months comprised of three levels.

Evaluation of Student Learning

Students are evaluated by:
- Practical projects
- Exams
- Drawings
- Presentations

Credential

Students receive a Civil/Structural Technician Certificate upon successful completion of the program.
Admission Requirements

- Grade 12 graduation or equivalent.
- 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 which includes a Canadian Language Benchmark of Listening 8, Speaking 7, Reading 8 and Writing 7 or better.

Applicants who have met the above requirements and completed Drafting 11 and 12 in high school can apply for direct entry into Level 2 of the program.

VCC CAD Citation graduates may insert into level 2 of the program.

Prior Learning Assessment & Recognition (PLAR)

PLAR is available for select courses. See individual Course Outlines for details.

Recommended Characteristics of Students

- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- Interest in all aspects of architecture, engineering, general construction and related fields.
## Course Credits

<table>
<thead>
<tr>
<th>Term/Level</th>
<th>Course #</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>DRFT 1010</td>
<td>CAD Drafting - Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1011</td>
<td>CAD Drafting - Applied</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
<td>1.0</td>
</tr>
<tr>
<td>Level 2</td>
<td>DRFT 1226</td>
<td>Construction Drawing Reading</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1280</td>
<td>Industrial Site Layout</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1281</td>
<td>Autodesk Civil 3D</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1282</td>
<td>Road Alignment Detailing</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1283</td>
<td>Steel Structures</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1284</td>
<td>Principles of Reinforced Concrete</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1285</td>
<td>Foundation Design Concepts</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1286</td>
<td>Engineering Statics</td>
<td>2.0</td>
</tr>
<tr>
<td>Level 3</td>
<td>DRFT 1320</td>
<td>Architectural Concepts</td>
<td>3.0</td>
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<tr>
<td></td>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>DRFT 1327</td>
<td>Revit Structures</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1370</td>
<td>Technical Communications</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1380</td>
<td>AutoCAD 3D and Assemblies</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1381</td>
<td>Miscellaneous Steel</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1383</td>
<td>Quantity Take Offs</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>DRFT 1384</td>
<td>Concrete Slab on Grade Floor Systems</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1385</td>
<td>Reinforced Concrete Structural Components</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DRFT 1386</td>
<td>Residential Wood Framing</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Program Total Credits:**

TOTAL

| 40.0 |

This guide is intended as a general guideline only. The college reserves the right to make changes as appropriate.
Course Descriptions

DRFT 1010 CAD Drafting - Fundamentals 4.0
This course introduces students to the world of technical drafting and the tools, terminology and media required to create working drawings of simple and more complex shapes. Students learn and apply the techniques for accurately drawing components, and fully representing them graphically.

DRFT 1011 CAD Drafting - Applied 3.0
In this course, students build on the graphical emphasis of DRFT 1010 by studying and applying the conventions of drawing annotation and complete a capstone project.

DRFT 1012 Office and Construction Site Safety
In this course, the students examine the safety aspects of a career in a construction-related field, with particular reference to precautions taken on entering a working construction site, as well as precaution related to workplace harassment and violence prevention.

DRFT 1013 Construction Mathematics 1.0
In this course, students will apply a wide variety of mathematical techniques with the degree of accuracy required to solve technical problems appropriate for a CAD technician.

DRFT 1226 Construction Drawing Reading 1.0
In this course, the student will learn the basic skills needed to read, study and understand construction drawings.

DRFT 1280 Industrial Site Layout 3.0
This course introduces the student to the overall layout of site development, mapping and plotting techniques, cut and fill practices, drainage and subsurface investigation for the Civil engineering industry.

DRFT 1281 Autodesk Civil 3D 2.0
In this course, the student will be introduced to using Autodesk Civil 3D Software for road layouts, land subdivision, terrain models, and corridor design.

DRFT 1282 Road Alignment Detailing 2.0
This course introduces the student to road layouts, horizontal and vertical alignments, and highway intersections.

DRFT 1283 Steel Structures 3.0
This course introduces the student to framing systems and the layout of steel structure construction drawings and steel drafting conventions.

DRFT 1284 Principles for Reinforced Concrete 1.0
This course introduces the student to the basic concepts and properties of steel reinforced concrete, characteristics and design principles.

DRFT 1285 Foundation Design Concepts 1.0
This course introduces the student to concrete foundations concepts, foundation plans and concrete grade beam drawings.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRFT 1286</td>
<td>Engineering Statics</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>In this course, students are introduced to the relationship between applied loads and the resultant support reactions, and the internal forces developed in statically determinate members and structures.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1320</td>
<td>Architectural Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to architectural drafting practices, architectural construction and the building codes used in architectural projects.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>The student will prepare a resume and letter of application. Locating job vacancies, assessing marketable skills and interviewing skills will be covered.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1327</td>
<td>Revit Structures</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces the student to the fundamentals of the Building Information Modeling (BIM) process using Autodesk Revit Structure software.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1370</td>
<td>Technical Communications</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>In this course, students will learn to communicate clearly, concisely and correctly in writing and in person in various technical communication situations.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1380</td>
<td>AutoCAD 3D and Assemblies</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>In this course, the student's cumulative drafting skills are then brought together in a project centred on the production of a set of drawings required for the assembly of a multi-part mechanical component. The students further develop their CAD skills by applying and adapting them to the 3D environment.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1381</td>
<td>Miscellaneous Steel</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces the student to the layout of miscellaneous steel elements, steel stairs and platforms.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1383</td>
<td>Quantity Take Offs</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to the principles for calculating steel and concrete amounts for structures.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1384</td>
<td>Concrete Slab on Grade Floor Systems</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces the student to concrete slab on grade and ground floor systems, and the production of the required associated construction drawings.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1385</td>
<td>Reinforced Concrete Structural Components</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to suspended concrete floor systems and types, concrete columns and beams and the conventions used to produce detail drawings.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1386</td>
<td>Residential Wood Framing</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>In this course, students build on the architectural residential design of Architectural Concepts by applying the code and theory of Wood Framing for Residential Structures, and preparing layout and detail drawings to complete a full residential wood framed project.</td>
<td></td>
</tr>
</tbody>
</table>
Transcript of Achievement

All evaluations at completion of semesters are reported to the Student Records Department to produce a Transcript of Achievement. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

### Letter Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Distinguished</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>Failing grade</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>Ceased to attend and did not complete requirements.</td>
<td>N/A</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
<td>N/A</td>
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<tr>
<td>R</td>
<td>Audit. No credit</td>
<td>N/A</td>
</tr>
<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as “F” if not fulfilled</td>
<td>N/A</td>
</tr>
<tr>
<td>IP</td>
<td>In progress</td>
<td>N/A</td>
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<tr>
<td>@</td>
<td>Non-payment of fees</td>
<td>N/A</td>
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<tr>
<td>RW</td>
<td>Required to withdraw</td>
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<td>NA</td>
<td>No grade available at time of printing</td>
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<td>ANC</td>
<td>Anecdotal evaluation</td>
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<tr>
<td>TC</td>
<td>Transfer credit</td>
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</tbody>
</table>

### Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.
2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.
3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
4. In order to be granted a certificate on completion of the program, a student must maintain a GPA equivalent to a C average. A student will not receive a certificate if they fail to maintain a C average, or if they receive an F grade in any course or courses.
**Course Name:** Construction Drawing Reading

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD &amp; BIM Technologies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
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</thead>
<tbody>
<tr>
<td>Revised Course</td>
<td>1st Year Post-secondary</td>
</tr>
<tr>
<td>Name of Replacing Course</td>
<td>Course Number: DRFT 1226</td>
</tr>
<tr>
<td>(if applicable):</td>
<td>Number of Credits: 1.0</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

DRFT 1010 and DRFT 1011

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- No
- Yes (details below):

**Course Description:**

In this course, the student will learn the basic skills needed to read, study and understand construction drawings.
### Course Outline

**Instructor:**

The instructor for this course is [Instructor Name].

**Contact Information:**

[Instructor Contact Information]

---

### Instructional Strategies:

This course comprises of lectures, group work, case studies and quizzes.

---

### Course Learning Outcomes:

Upon successful completion of this course, the student will be able to:

- Read and interpret a set of construction drawings
- Identify and describe standard symbols used in construction drawings
- Define and interpret standard terminology and abbreviations used in construction drawings

---

### Program Learning Outcomes:

This course serves the following programs:

- Civil/Structural Technician Certificate
- CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 30

### Resource Material(s)

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Standard symbols used in construction drawings
- Standard terminology and abbreviations used in construction drawings
- Drafting techniques & conventions used in construction drawings

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC website at:
http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Industrial Site Layout

Department Head/Coordinator: Bruce McGarvie

Effective Date: September 2016

School or Centre: School of Music, Dance and Design

Department: CAD & BIM Technologies

Course History:

New Course

Name of Replacing Course (if applicable):

DRFT 1210
Industrial Site Layout

Course Number: DRFT 1280

Number of Credits: 2.0

Year of Study: 1st Year Post-secondary

Course Pre-requisites (if applicable):

Completion of all Level 1 courses

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☒ No ☐ Yes (details below):

Course Description:

This course introduces the student to the overall layout of site development, mapping and plotting techniques, cut and fill practices, drainage and sub-surface investigation for the Civil engineering industry.
Instructional Strategies:
Lectures, handout materials, video presentations, field work and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Solve surveying and related math problems
• Identify and define terminology, abbreviations and symbols
• Interpolate and plot contours using industry accepted practice.
• Locate and measure lines and angles for surveying purposes to provincial standards.
• Layout a traverse based on survey information to provincial standards.
• Layout Profiles and Cross Sections of an industrial site to provincial standards.
• Calculate accurate cut and fill quantities
• Layout and calculate a storm sewer drainage system using industry accepted practice.

Program Learning Outcomes:
This course serves the following programs:
• Civil/Structural Technician Certificate
• CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</table>

Enter Total Hours 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

• Terminology, Abbreviations & Symbols
• Contour Lines and Maps
• Surveying Fundamentals
• Traverse Tables and Property Lines
• Profiles and Cross Sections
• Cut & Fill Calculations
• Site Drainage & Storm Sewer Design

VCC Education and Education Support Policies

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http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
**Course Name:**  Autodesk Civil 3D

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

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**Course Number:** DRFT 1281  
**Number of Credits:** 2.0

**Course Pre-requisites (if applicable):**  
DRFT 1280

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):** No

**Course Description:**  
In this course, the student will be introduced to using Autodesk Civil 3D Software for road layouts, land subdivision, terrain models, and corridor design.
Instructional Strategies:
Reference material, self guided text, video presentations, and lectures are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Create and manage civil engineering land development drawings.
• Edit & create styles and settings.
• Create, import, analyze, manipulate points.
• Create point groups and create description keys.
• Subdivide land, label points, lines and curves.
• Create, edit and analyze terrain models.
• Create horizontal alignments.
• Create existing and design profiles.
• Create and use assemblies for corridor design.

Program Learning Outcomes:
This course serves the following programs:
• Civil/Structural Technician Certificate
• Steel Detailing Technician Certificate
• CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
## Evaluation/Grading System

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### Components and Weighting of the Assessment/Evaluation Plan:

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### Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours: 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Learn the AutoCAD Civil 3D user interface.
- Create and edit parcels and print parcel reports.
- Create points and point groups and work with survey figures.
- Create, edit, view, and analyze surfaces.
- Create and edit alignments.
- Create data shortcuts.
- Create sites, profiles, and cross-sections.
- Create assemblies, corridors, and intersections.
- Create grading solutions.
- Perform quantity takeoff and volume calculations
- Use plan production tools to create plan and profile sheet

VCC Education and Education Support Policies

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FOR COMMITTEE USE ONLY

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</table>
Course Name: Road Alignment Detailing

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CAD & BIM Technologies
Year of Study: 1st Year Post-secondary

Course Name (if applicable):
DRFT 1211 Alignment Detailing

Course Number: DRFT 1282
Number of Credits: 2.0

Course Pre-requisites (if applicable):
DRFT 1280

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☑ No ☐ Yes (details below):

Course Description:
This course introduces the student to road layouts, horizontal and vertical alignments, and highway intersections.
Instructional Strategies:
Lectures, handout materials, video presentations, and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Layout and calculate a horizontal alignment to provincial standards.
- Layout and calculate a vertical alignment and relate it to the associated horizontal alignment to provincial standards.
- Create plan and profile drawings for a road alignment to provincial standards.
- Layout and produce a drawing of a highway intersection to provincial standards.

Program Learning Outcomes:
This course serves the following programs:

- Civil/Structural Technician Certificate
- CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Evaluation/Grading System

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Total 100

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</table>

Enter Total Hours 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Horizontal Alignment for Roads
- Vertical Alignment for Roads
- Highway Intersection layout

VCC Education and Education Support Policies

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<tr>
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<th>Date Approved by VCC Board (if applicable):</th>
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</table>

Course Name: Steel Structures

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: Drafting
Year of Study: 1st Year Post-secondary

Course History:
Course Name: DRFT 1283
Course Number: DRFT 1283
Number of Credits: 3.0

Course Pre-requisites (if applicable):
Completion of all Level 1 courses.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)
☑ No ☐ Yes (details below):

Course Description:
This course introduces the student to framing systems and the layout of steel structure construction drawings and steel drafting conventions.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Identify and describe typical structural steel framing systems and their components to CICS Standards.
• Identify and draw steel framed structures using the standard shapes by applying the industry accepted conventions and techniques
• Develop and draw simple framed connections using welded and bolted connections.
• Produce detail drawings of steel frame structures using the standards and conventions of the industry in preparing engineering working drawings.

Program Learning Outcomes:
This course serves the following programs:

• Civil/Structural Technician Certificate
• CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
## Evaluation/Grading System

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**Total 100**

## Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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**Enter Total Hours 90**

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Steel framing systems, terminologies and abbreviations.
- Steel shapes & base plates
- Steel roof and floor plans
- Types of framing and loading
- Welded and bolted connections
- Steel brace elevation drawings
- Structural steel shapes
- Basic steel framed connections
- Steel drafting conventions

VCC Education and Education Support Policies

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
# Course Outline

## Course Name:
Principles of Reinforced Concrete

### Department Head/Coordinator:
Bruce McGarvie

### Effective Date:
September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
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<td>CAD &amp; BIM Technologies</td>
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### Course Number:
DRFT 1284

### Number of Credits:
1.0

---

### Course Pre-requisites (if applicable):
Completion of all Level 1 courses.

---

### Course Co-requisites (if applicable):

---

### PLAR (Prior Learning Assessment & Recognition):

- [ ] No
- [ ] Yes (details below):

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### Course Description:

This course introduces the student to the basic concepts and properties of steel reinforced concrete, characteristics and design principles.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Identify and describe typical concrete characteristics and it's components.
• Describe typical steel reinforcing characteristics and how it acts when combined with concrete.
• Explain how reinforcing steel acts when combined with concrete.
• Develop and calculate development and lap lengths for steel reinforcing.
• Detail, identify and describe the components for concrete form work.

Program Learning Outcomes:
This course serves the following programs:
• Civil/Structural Technician Certificate
• CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
Components and Weighting of the Assessment/Evaluation Plan:

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Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Concrete Characteristics
- Where and why is reinforcing needed.
- Classification and types of reinforcing.
- Bond and embedment
- Type of splices
- Embedment and Lap Splices
- Use the reinforcing tables to find the embedment and lap lengths
- Formwork for Concrete Structures

VCC Education and Education Support Policies

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
**Course Name:** Foundation Design Concepts

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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**Course Pre-requisites (if applicable):**

DRFT 1284

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

☑️ No ☐ Yes (details below):

**Course Description:**

This course introduces the student to concrete foundations concepts, foundation plans and concrete grade beam drawings.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Evaluate appropriate structural information from engineering design notes.
- Apply detailed information from mechanical, piping and equipment vendor’s drawings
- Use the concepts of reinforced concrete.
- Create detail drawings of foundation components, plans and details to accepted industry standards.
- Apply all the above in the production of a complete set of structural engineering drawings.

Program Learning Outcomes:
This course serves the following programs:

- Civil/Structural Technician Certificate
- CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Evaluation/Grading System

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**Enter Total Hours**: 30

#### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Principles of Foundation Design
- Design Principles of Concrete Footings
- Principles of Soil Mechanics & Soil Behavior
- Detail drawings of building foundations
- Equipment bases
- Reinforced concrete layout drawings

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

| Date Approved by Education Council | Date Approved by VCC Board (if applicable) |
Course Name: Engineering Statics

Department Head/Coordinator: Bruce McGarvie

Effective Date: September 2016

Course Description:
In this course, students are introduced to the relationship between applied loads and the resultant support reactions, and the internal forces developed in statically determinate members and structures.
Instructional Strategies:
Lectures, handout materials, video presentations, project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Analyze vector forces and what establishes equilibrium.
• Produce force system resultants.
• Analyze two force members and trusses.
• Calculate internal forces.
• Analyze centre of gravity.
• Calculate moments of inertia.

Program Learning Outcomes:
This course serves the following programs:
• Civil/Structural Technician Certificate
• CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Evaluation/Grading System

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Enter Total Hours 60

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Define types of forces and force systems.
- Graphically and Mathematically solve force systems.
- Calculate moment of a force system.
- Produce Shear and Moment Diagrams.
- List the conditions of static equilibrium.
- Construct the Free Body Diagram.
- Solve unknown forces in to produce static equilibrium.
- Analyze truss, pulley systems, machines and frames, built-up members.
- Determine Moment of Inertia and Centroid of a Shape.

VCC Education and Education Support Policies

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http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Architectural Concepts

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD & BIM Technologies

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
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<tr>
<td>Revised Course</td>
<td>1st Year Post-secondary</td>
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<tr>
<td>Name of Replacing Course (if applicable):</td>
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<tr>
<td>DRFT 1320</td>
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<td>Course Number:</td>
<td>DRFT 1320</td>
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<td>Number of Credits:</td>
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Course Pre-requisites (if applicable):

DRFT 1327

Course Co-requisites (if applicable): 

PLAR (Prior Learning Assessment & Recognition)

☒ No ☐ Yes (details below):

Course Description:

This course introduces students to architectural drafting practices, architectural construction and the building codes used in architectural projects.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
- Layout of an Architectural drawing
- Produce a residential architectural floor plan to accepted industry standards
- Produce a residential architectural plot or site plan to accepted industry standards
- Produce a residential architectural building section drawing to accepted industry standards
- Produce a residential architectural building elevation drawing to accepted industry standards
- Identify and apply building practices & components in the production of build code compliant drawings

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
- Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
- Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
- Develop drafting, BIM and related trade skills and knowledge.
- Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
- Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
- Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
- Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
- Prepare a comprehensive professional portfolio.
- Prepare résumé, letters of application and perform other related job search skills.
### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>30</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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**Enter Total Hours**: 90

### Components and Weighting of the Assessment/Evaluation Plan:

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<td>Quizzes/Tests</td>
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**Total**: 100

### Resource Material(s):  
Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
• Architectural drafting techniques
• Floor plans
• Plot plans
• Sections and details
• Elevations
• Construction practices and building codes

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**FOR COMMITTEE USE ONLY**

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
Course Name: Revit Structures

**Department Head/Coordinator:** Dept Head: Bruce McGarvie  **Effective Date:** June 2012

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
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<tbody>
<tr>
<td>School of Music and Dance</td>
<td>CAD &amp; BIM Technologies</td>
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**Course History:**
- Revised Course: 1st Year Post-secondary

**Name of Replacing Course (if applicable):**

<table>
<thead>
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<th>Course Number:</th>
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</thead>
<tbody>
<tr>
<td>DRFT 1327</td>
<td>2.0</td>
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</table>

**Course Pre-requisites (if applicable):**
- DRFT 1283 and DRFT 1285

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- No
- Yes (details below):

**Course Description:**

This course introduces the student to the fundamentals of the Building Information Modeling (BIM) process using Autodesk Revit Structure software.
Instructional Strategies:
This course uses project based learning strategies with instructional presentations and laboratory work using Autodesk Revit Structure software.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Identify uses of Autodesk Revit Structure software in Building Information Modeling (BIM)
- Use basic Autodesk Revit Structure drawing and editing tools
- Develop a parametric model of a structural project
- Generate and annotate construction documents from the model

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:

- Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ current Computer Aided Drafting (CAD) and three dimensional modeling systems as a tool to produce drawings from data, designs and/or specifications.
- Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
- Develop drafting, BIM and related trade skills and knowledge.
- Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
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- Prepare a comprehensive professional portfolio.
- Prepare résumé, letters of application and perform other related job search skills.
### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

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### Learning Environment/Type

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<thead>
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<th>Instruction Type</th>
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Enter Total Hours: 60

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### Evaluation/Grading System

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<td>Letter Grades</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10</td>
<td>Manipulating floors, walls &amp; columns</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
<td>True/false, multiple choice, short answer</td>
</tr>
<tr>
<td>Project</td>
<td>70</td>
<td>1 parametric model and minimum of 4 problem/project-based assignments of approximately equal value.</td>
</tr>
</tbody>
</table>

Total: 100
Course Topics and Sequence Covered:

- Introduction to Building Information Modeling;
- Overview of Autodesk Revit Structure user interface;
- Basic drawing and editing tools;
- Working with views;
- Datum elements (levels and grids);
- Construction components (columns, beams, walls, floors, foundations, etc);
- Construction document annotation

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<td>Date Approved by Education Council:</td>
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</table>
**Course Name:** AutoCAD 3D and Assemblies

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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<th>Department:</th>
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<td>School of Music, Dance and Design</td>
<td>CAD &amp; BIM Technologies</td>
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<tr>
<td>DRFT 1380</td>
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### Course Pre-requisites (if applicable):

- DRFT 1011

### Course Co-requisites (if applicable):

No

### PLAR (Prior Learning Assessment & Recognition)

- [x] No  
- [ ] Yes (details below):

### Course Description:

In this course, the student's cumulative drafting skills are then brought together in a project centred on the production of a set of drawings required for the assembly of a multi-part mechanical component. The students further develop their CAD skills by applying and adapting them to the 3D environment.
Instructional Strategies:
Self-paced workbook, lecture, demonstrations, group activities, and student research will be used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Use AutoCAD's 3D commands and features.
• Create three dimensional wireframe, surfaced and solid models.
• Produce an industry standard assembly drawing.

Program Learning Outcomes:
This course serves the following programs:
• Civil/Structural Technician Certificate
• Steel Detailing Technician Certificate

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if ‘Other’:</th>
<th>Specify Passing Grade:</th>
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<td>Letter Grades</td>
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<td>C-</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
<td>Assignments</td>
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<td>Minimum of 5 modeling assignments of approximately equal value.</td>
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<td>Project</td>
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Total 100%

### Learning Environment/Type

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<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</table>

Enter Total Hours 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- World and User Coordinate Systems.
- Create and edit 3D wire-frame models.
- Create and edit 3D surface models.
- Create and edit 3D solid models, 3D faces and meshes.
- Filleting, chamfering, regions, mass properties.
- Sectioning, slicing, shading.
- Parts list and annotations.

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FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |

Course Name: Miscellaneous Steel

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CAD & BIM Technologies
Year of Study: 1st Year Post-secondary

Course History:
Name of Replacing Course (if applicable):
Course Number: DRFT 1381
Number of Credits: 1.0

Course Pre-requisites (if applicable):
DRFT 1327

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)
No Yes (details below):

Course Description:
This course introduces the student to the layout of miscellaneous steel elements, steel stairs and platforms.
**Instructional Strategies:**
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

---

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:
• Identify and describe typical structural steel framing systems and their components for stairs and secondary steel supports.
• Produce industry standard drawings of miscellaneous steel framed structures using correct conventions and techniques.

---

**Program Learning Outcomes:**
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modeling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
• Develop drafting, BIM and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
• Prepare résumé, letters of application and perform other related job search skills.
### Evaluation/Grading System

<table>
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<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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<tr>
<td>Letter Grades</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<tbody>
<tr>
<td>Assignments</td>
<td>70</td>
<td>Minimum of 4 problem/project-based major assignments of approximately equal value.</td>
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<tr>
<td>Final Exam</td>
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### Learning Environment/Type

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<tr>
<td>L - Classroom</td>
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<td>B - Lab (Computer, Chemistry...)</td>
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</table>

Enter Total Hours 30

### Resource Material(s):
Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Secondary support systems
- Structural steel shapes
- Basic framed stairs
- Platforms and handrails
- Drafting conventions

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FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
Course Name: Quantity Take Offs

Department Head/Coordinator: Bruce McGarvie
Effective Date: September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
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<td>School of Music, Dance and Design</td>
<td>CAD &amp; BIM Technologies</td>
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Name of Replacing Course (if applicable):

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<td>Number of Credits:</td>
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Course Pre-requisites (if applicable):

DRFT 1283 and DRFT 1285

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No  ☑ Yes (details below):

Course Description:
This course introduces students to the principles for calculating steel and concrete amounts for structures.
Instructional Strategies:
Lectures, handout materials, and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Produce structural steel and concrete material amounts (take-offs) from existing construction drawings using accepted industry standards to produce accurate values for cost scheduling.

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
• Develop drafting, Building Information Modeling (BIM) and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
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### Evaluation/Grading System

<table>
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<th>Grading System</th>
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<td>Letter Grades</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<tr>
<td>Assignments</td>
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<td>Final Exam</td>
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Total 100

### Learning Environment/Type

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<th>Instruction Type</th>
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<tr>
<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 15

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
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<tbody>
<tr>
<td>• Steel amount counting techniques.</td>
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<tr>
<td>• Steel volume and weight calculations.</td>
</tr>
<tr>
<td>• Concrete amount counting techniques.</td>
</tr>
<tr>
<td>• Concrete volume calculations.</td>
</tr>
<tr>
<td>• Material amount scheduling.</td>
</tr>
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<table>
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<tr>
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</tr>
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Course Name: Concrete Slab on Grade Floor Systems

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD & BIM Technologies

Course History: New Course  
Year of Study: 1st Year Post-secondary

Name of Replacing Course: Concrete Building Components  
Course Number: DRFT 1384

Number of Credits: 2.0

Course Pre-requisites (if applicable):

DRFT 1327

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition):

☐ No  ☐ Yes (details below):

Course Description:

This course introduces the student to concrete slab on grade and ground floor systems, and the production of the required associated construction drawings.
**Instructional Strategies:**
Lectures, handout materials, video presentations, and project/problem based learning activities are used.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to:
- Use appropriate structural information from engineering design notes
- Apply detailed information from mechanical, piping and equipment vendor’s drawings
- Explain concepts of reinforced concrete for slab-on-grades.
- Create slab-on-grade plans and details to accepted industry standards.
- Produce a set of structural engineering drawings for ground floor systems.

**Program Learning Outcomes:**
Graduates of this program will have acquired the skills and knowledge to:
- Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ current Computer Aided Drafting (CAD) and three dimensional modeling systems as a tool to produce drawings from data, designs and/or specifications.
- Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
- Develop drafting, 3D BIM and related trade skills and knowledge.
- Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
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- Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
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### Evaluation/Grading System

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<tr>
<th>Grading System</th>
<th>Specify if ‘Other’</th>
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<tr>
<td>Letter Grades</td>
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#### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>70</td>
<td>Minimum of 4 problem/project-based major assignments of approximately equal value.</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Total 100</td>
</tr>
</tbody>
</table>

#### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Principles of slab-on-grade design
- Principles of sub-grade design
- Techniques of slab-on-grade layout for construction drawings
- Trench and floor slope detail drawings
- Detail drawings of anchor bolts, inserts and embedded metals
- Vendors drawings and equipment bases
- Concrete crack control and construction joints

VCC Education and Education Support Policies

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http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
**Course Name:** Reinforced Concrete Structural Components

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD &amp; BIM Technologies</td>
</tr>
</tbody>
</table>

**Course History:**

<table>
<thead>
<tr>
<th>New Course</th>
<th>1st Year Post-secondary</th>
</tr>
</thead>
</table>

**Name of Replacing Course (if applicable):**  
Concrete Building Components

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>Number of Credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRFT 1385</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

DRFT 1384

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**

- No
- Yes (details below):

**Course Description:**

This course introduces students to suspended concrete floor systems and types, concrete columns and beams and the conventions used to produce detail drawings.
Instructional Strategies:

Lectures, handout materials, video presentations, case studies and project/problem based learning activities are used.

Course Learning Outcomes:

Upon successful completion of this course, the student will be able to:
• Identify and describe several types of suspended floor systems
• Create a detailed drawing of a suspended floor system using several construction methods
• Produce a elevation drawing of a concrete column or beam in elevation with required details.
• Identify, call-up and detail any miscellaneous embedded material necessary
• Layout and detail any stair configuration to Building Code Standard
• Evaluate detailing information from engineering design notes
• Produce detailed working drawing set of any reinforced concrete structural component

Program Learning Outcomes:

Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modeling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
• Prepare résumé, letters of application and perform other related job search skills.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>70</td>
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</tr>
<tr>
<td>Final Exam</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td></td>
<td></td>
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<td></td>
<td>Total 100</td>
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### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

**Enter Total Hours**: 90

### Resource Material(s):
Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

• Structure types
• Structure components
• Concrete suspended slab systems
• Layout and detailing concrete suspended slabs and reinforcement
• Miscellaneous embedded steel
• Stair systems
• Reinforcing steel schedule
• Concrete column and beam systems
• Concrete column detailing
• Concrete beam detailing
• Provision for adjacent structural components

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |

**Course Name:** Residential Wood Framing  

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
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<td>CAD &amp; BIM Technologies</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Course</td>
<td>1st Year Post-secondary</td>
</tr>
</tbody>
</table>

**Course Name:** Residential Wood Framing  
**Course Number:** DRFT 1386  
**Number of Credits:** 1.0

**Course Pre-requisites (if applicable):**  
DRFT 1320

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
☐ No  ☐ Yes (details below):

**Course Description:**

In this course, students build on the architectural residential design of Architectural Concepts by applying the code and theory of Wood Framing for Residential Structures, and preparing layout and detail drawings to complete a full residential wood framed project.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Apply correct span tables to size framing members.
• Properly use industry convention symbols used in wood-frame construction documents.
• Create floor and roof framing plans, complete with load transfers.
• Produce wood connection details using fasteners commonly used in industry.
• Apply knowledge of wood framing theory.

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modeling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and Building Information Modeling (BIM).
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
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<tr>
<td>Quizzes/Tests</td>
<td>10</td>
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<tr>
<td>Final Exam</td>
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<td></td>
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</table>

Total 100%

### Learning Environment/Type

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<td>10</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 30

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Use of CMHC framing tables.
- Review wood framing design handbook
- Layout of floor joist, roof rafters or trusses.
- Layout of post & beam and load bearing transfers.
- Detail of beam-post connections, hangers and post bases.

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Proposal for New Program

Name of Proposed Program: Steel Detailing Technician Certificate

Additional material may also be included as appendices. For information about submitting the completed Proposal for New Program, please contact the Centre for Instructional Development.

Curriculum development is a consultative process. Therefore, it is understood that this is a living document which will be refined as it moves through the development process.

A. Concept

Department Leader: Bruce McGarvie

Faculty: School of Music, Dance and Design

Dean: Debbie Sargent (Interim)

Proposal Date: September 2016

If this is a joint educational offering, name of other institution (refer to Affiliation Agreement Policy C.3.10):

Purpose and Context

1. Describe in detail the program’s objectives and a description of the program outcomes, including a list of the occupations or roles that graduates will be prepared for:

This program will replace the Drafting Certificate. Graduates of this new program will have developed the Computer Aided Drafting (CAD) and Building Information Modeling (BIM) skills which will enable them to enter the workforce in many areas as team members in: structural steel fabrication companies, miscellaneous metals fabrication companies, and steel detailing offices. Graduates will work on a wide variety of commercial and industrial structures, energy infrastructure, and development work. The certificate will substantially satisfy the criteria for program accreditation by the Applied Science Technologists and Technicians of BC (ASTTBC), with completion of the criteria obtained with the second year Diploma program. The successful graduates can also ladder directly into the 24-week CAD & BIM Technician Diploma program. This program expands the level of current technical processes, with a greater focus on BIM. The program outcomes are:

- Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
- Apply terminology and conventions used in drafting and 3D modeling.
- Develop drafting, 3D modeling and related trade skills and knowledge.
- Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
Proposal for New Program

- Utilize data from current building codes and fabrication standards to develop practical connections between components that are code-compliant and practical to fabricate and install on site.
- Use structural engineering drawings and specifications to prepare three dimensional models of structures, which utilise structural steel.
- Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce structural steel fabrication and arrangement drawings from data, designs and/or specifications.
- Prepare a comprehensive professional portfolio.
- Prepare résumé, letters of application and perform other related job search skills.

2. Explain how this program adheres to principles and priorities as indicated in the College’s strategic, educational or ministerial planning documents:

The design of this new program supports the College’s Strategic Initiatives and Education Plan, as demonstrated by the following:

- The program is designed to support the BC Government’s “Labour Market 2020” forecast for increased demand in the technical and trades segment for the energy industry infrastructure, LNG and major hydro projects.
- The new program aligns with the learning outcomes outlined in the accreditation standard for Applied Science Technologists and Technicians of BC (ASTTBC) and the Technology Accreditations Canada (TAC). The goal is to have the Certificate program satisfying most of the objectives required for accreditation, to be completed with the CAD & BIM Technician Diploma.
- This program addresses the special needs of newcomers to Canada as well as international students looking to gain knowledge in the local industry.
- This program is well suited for students with certain physical disabilities provided the computer work station can be adapted for their use. This reduces barriers for those in wheelchairs or with walking difficulties.
- This program is designed and updated to include a higher level of technical knowledge and an increased ability in BIM. As such, it is more relevant to industry needs.
- The focus of this new program is to provide relevant high-quality curriculum that leads to student success, and to maintain a positive reputation in the community.

3. Identify how the proposed program supports VCC’s mission, core values, and strategic objectives?

This new program will provide the most current training required by the building and design industry today. The certificate will also provide access to those wishing to pursue a CAD & BIM Technician Diploma, and thus achieve ASTTBC accreditation.

VCC has many supports for students to facilitate success. The CAD & BIM Technologies Department refers students to these services in support of student success. Several strategies are built into the program to help students gain success.

The CAD & BIM Technologies Department has many partnerships and collaborations. Numerous informal affiliation agreements exist in support of student placement. Many steel fabrication, miscellaneous metals and steel detailing companies in the greater Vancouver area seek our graduates for placement.

The regulatory body ASTTBC and our Program Advisory Committee have been asking VCC to develop an accredited program for some time now. We value the positive partnership we have with these stakeholders.

The Drafting program graduates have historically achieved high standards. As such, the program has a positive reputation in the design and building community. This new design and technological upgrade to the program will continue this tradition in the years to come.

4. How does this program relate to and/or support other programs at VCC?
Proposal for New Program

This program can be a gateway for students who become interested in a higher level of engineering. Students could enter the first year engineering program if they meet the entrance requirements. Conversely, for those students who enter first year engineering and want a program that is more technically focused, the Steel Detailing Technician Certificate program would be a good option. International students and newcomers to Canada who have completed the ESL program, and local students who have completed the ABE program, can also enter this program.

Program Need

5. What educational gap, if any, is this program intended to fill?

There is a consistent demand for Steel Detailing, CAD and BIM technicians in British Columbia. The drafting program at VCC has been providing skilled drafters for the engineering and construction industries for over five decades. With this new program, the department will be well suited to continue to provide highly skilled technicians ready for today’s market place.

6. What evidence is there of student demand for the program?

The Drafting programs at VCC have been successfully delivered each and every year for over half a century, producing the drafters that have assisted in building this city and this province over that time. Many of the local companies delivering drafting and CAD services are either owned by former grads, or have former grads in senior management positions. From a purely statistical standpoint, our programs over the past five years have attracted students as shown in the table below:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Architectural</th>
<th>Civil/Structural</th>
<th>Steel Detailing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credential</td>
<td>Credential</td>
<td>Credential</td>
</tr>
<tr>
<td></td>
<td>Certificate</td>
<td>Diploma</td>
<td>Certificate</td>
</tr>
<tr>
<td></td>
<td>Certificate</td>
<td>Diploma</td>
<td>Diploma</td>
</tr>
<tr>
<td>2015</td>
<td>20</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>1</td>
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<tr>
<td>2013</td>
<td>20</td>
<td>9</td>
<td>14</td>
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<tr>
<td>2012</td>
<td>19</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>2011</td>
<td>18</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Average/year</td>
<td>19</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: VCC Registrar’s Office

7. What evidence is there of labour market, professional or community demand for the graduates (report results)?

From Employment and Social Development Canada projection (COPS) Sept 2015 (Appendix 1):
Proposal for New Program

“Over the 2013-2022 period, an occupation will be in excess demand (a shortage of workers) if the projected number of job openings is significantly greater than the projected number of job seekers. An occupation will be in excess supply (a surplus of workers) if the projected number of job openings is smaller than the projected number of job seekers. For Technical Occupations In Architecture, Drafting, Surveying And Mapping, over the 2013-2022 period, job openings (arising from expansion demand and replacement demand) are expected to total 16,340 and 10,998 job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.”

From BC government’s Work BC labour market outlook Sept. 2015 (Appendix 2):

<table>
<thead>
<tr>
<th>Expected number of job openings (2012 - 2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative number of new jobs (2012 - 2022)</th>
<th>3,300</th>
</tr>
</thead>
<tbody>
<tr>
<td>% job openings from replacement</td>
<td>66 %</td>
</tr>
<tr>
<td>% job openings from expansion</td>
<td>34 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected growth in employment demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted demand for workers in this field.</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Projected Unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2022</td>
</tr>
</tbody>
</table>

“While BC’s technology sector is growing and technology jobs are becoming strategically critical to our knowledge-based economy, other industrialized nations are also in the hunt for such workers. In the Manpower Group’s most recent Talent Shortage Survey (2012), they asked employers throughout the world about which jobs they are having the most difficulty filling. The bottom line is that there is extremely strong competition for technical talent, with “top ten” lists dominated by jobs in Science, Technology, Engineering and Mathematics, including skilled trades.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Unfilled Positions by 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological and mineral technologists</td>
<td>375</td>
</tr>
<tr>
<td>Drafting technologists and technicians</td>
<td>315</td>
</tr>
<tr>
<td>Heavy equipment operators (except crane)</td>
<td>305</td>
</tr>
<tr>
<td>Mapping and related technologists and technicians</td>
<td>280</td>
</tr>
<tr>
<td>Geological engineers</td>
<td>245</td>
</tr>
</tbody>
</table>

8. Anticipated start date of program: September 2016
Proposal for New Program

Competitive Analysis

9. Which related programs are available in the Lower Mainland and/or on-line: how do they compare in terms of focus, intended outcomes, length, costs and size?

There are 5 related programs in the Lower Mainland, offered by Kwantlen Polytechnic University (KPU) and British Columbia Institute of Technology (BCIT) and Brighton College:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Credential</th>
<th>Credits</th>
<th>Cost</th>
<th>Duration</th>
<th>Pass marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPU</td>
<td>ARCHITECTURAL CERTIFICATE</td>
<td>32</td>
<td>$4487.52*</td>
<td>2 SEMESTERS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>KPU</td>
<td>STRUCTURAL CERTIFICATE</td>
<td>32**</td>
<td>$4487.52*</td>
<td>2 SEMESTERS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>BCIT</td>
<td>ARCHITECTURAL CADD &amp; GRAPHICS TECHNICIAN CERTIFICATE</td>
<td>80***</td>
<td>$6248.80*</td>
<td>40 WEEKS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>BCIT</td>
<td>STRUCTURAL CADD &amp; GRAPHICS TECHNICIAN CERTIFICATE</td>
<td>80</td>
<td>$6248.80*</td>
<td>40 WEEKS</td>
<td>50% per course 65% GPA</td>
</tr>
<tr>
<td>Brighton College</td>
<td>ARCHITECTURAL DRAFTING AND DESIGN SPECIALIST</td>
<td>Not Available</td>
<td>$14550.00</td>
<td>34 WEEKS</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

* Includes Student Association fee
** CADS 1210, CADS 1250 and CADS 1251 (4 credits each) contain course content relating to steel detailing.
*** ASCT 1120 and ASCT 1140 (8 credits each) are the steel design detailing and construction courses within this program.

10. Is this concept supportable and sustainable with existing and/or available resources?

There will be no change to the program costs other than to include Program Assistant support. There is currently no support staff working in the Department. Efforts will be made to obtain a tuition lift and have a higher tuition than the current programs have.

11. Is this a cohort, selective entry, or open access program? How will the program be rolled out if you are not using a cohort model?

Yes, this will be a cohort based program.

12. What is the expected length of program (in months/years)? What is the maximum allowable time for completion?

The expected length remains unchanged at 10 months, with 2 years allowed for completion.

13. How many students would you expect to enroll in each year of the program?

We would expect 18-20 students in the Steel Detailing Technician Certificate program.

Admission and Delivery
Proposal for New Program

14. **Provide a detailed list of admission requirements, including language proficiency levels and assessment scores.**

   - Grade 12 graduation or equivalent
   - Apprenticeship and Workplace Math 11 or Pre-Calculus Math 11 or take the Request for Transfer Credit PDF form. Requests for diploma eligibility received after the program has started will not be approved.

   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.

   VCC CAD Citation graduates may insert into level 2 of the program.

15. **Will the structure of the program allow for full-time, part-time, evening, weekend, on-line, mixed-mode delivery methods, or a combination of any of these? (Identify each as appropriate).**

   The program structure will allow for full time, days and/or evenings Monday to Friday. If enrollments demand more classes, both a day class and an evening class can run concurrently.

16. **Will the structure of the program allow for multiple entry and exit points? If there are multiple entry points, please specify requirements for each.**

   The intended program allows for a student to exit after Level 1 of the Steel Detailing Technician Certificate program and enter the Citation program at Level 2.
   Conversely, intended program allows for a Citation student to enter the Level 2 of the Steel Detailing Technician Certificate program after completing Level 1 of the Citation program.

**Student Profile**

17. **Who are your target students (age, gender, educational background, work experience)? Where do they come from (recent high school graduates, mature students, transfers from other institutions)? How do you plan to recruit or attract these students? Are there other characteristics applicants should have that you identify as important?**

   We have three (3) primary target populations of students.
   1. Recent high school graduates or 1st year university/college students looking for a career in the technology design professions.
   2. Those in their mid to late twenties who are looking for post-secondary training to obtain a better career.
   3. Those trades people who have been hurt or laid-off and are looking for retraining through Work Safe or EI.

   Recruitment activities will include:
   - a targeted social media and online campaign
   - visiting the area secondary school and meeting with drafting teachers and counselors
   - having teachers visit the college and tour our department
   - trade shows
Proposal for New Program

- VCC Info nights
- CAD & BIM Technologies Department information sessions
- hosting high school students on Pro-D days and Spring Break

Other important characteristics that applicants should have would include:
- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- Interest in all aspects of architecture, engineering, general construction and related fields.

18. How will the program address the needs of under-prepared students? How will you get these students into appropriate upgrading courses or programs? What options are available...?

Students not meeting the program pre-requisites will be able to meet with someone from the Advising Department to determine which courses will help them to best meet the prerequisites.

19. How will the program address equity by decreasing systemic barriers? Is this type of program traditionally or historically underrepresented in specific cohort groups? (e.g., gender and/or age imbalance, First Nations) How will the program address these issues?

Although the engineering and fabrication industry traditionally admits a larger percentage of male applicants than female applicants, females are strongly encouraged to apply. Marketing strategies are being developed to attain more gender balance. The program may be suited for those applicants with physical barriers (wheelchairs, crutches, walkers, etc.) that meet the program requirements. We are encouraging First Nations students to apply by working closely with the Aboriginal Services Department.

Quality

20. How will the program ensure educational effectiveness (e.g., retention, progression, completion)?

VCC has been a leader in training drafters for more than 50 years. Our well-respected and longstanding Program is widely recognized by many of the industry leaders with a great number of Department managers and company partners as former graduates of the program. Historically there has been some attrition within Level 1 of the program. Based on these past attrition rates in first level, we plan to ‘overfill’ our first year to 20 students. We expect there will be a large interest in the Diploma program due to our anticipated accreditation from ASTTBC. This will motivate students and increase retention.

21. Describe how the proposed program incorporates work experience, practicum, clinical practice, etc. (if applicable):

Learning is fostered through seminars, lectures, labs, problem based learning. Students have opportunities to apply knowledge and practice various abilities while entering various design competitions, for example Skills Canada and the BC AutoCAD competition. In addition, there are frequent practicum positions that are offered to the department by our PAC members firms and industry relationships. The number and frequency varies from year to year as industry conditions vary. The program is designed to foster the development of professionalism, a
Proposal for New Program

commitment to lifelong learning, and dedication to an ethical profession through classroom group activities and team projects.

22. Does the program create opportunities for students to transfer credit and/or ladder from/to other programs?

Yes, students completing courses at other institutions can be awarded transfer credits provided they meet the transferability requirements established by the British Columbia Drafting Technologies Articulation Committee of BCCAT.

Certificate graduates will have the opportunity to ladder to the CAD and BIM Diploma program. In addition, graduates may ladder into the Science or Engineering programs here at VCC or into other degree and diploma programs such as BCIT's Civil engineering degree or Technologist Programs, provided they meet the entrance requirements. The student needing some higher level math or science prerequisite courses could upgrade here at VCC as part of their academic pursuit.

23. Will this program allow students to continue with further study? Describe laddering, bridging, or post-credential continuation of education.

As above...

24. Does this program include Prior Learning Assessment and Recognition (PLAR) as per Policy ##?

PLAR is included for two courses in Level 1, CAD Drafting – Fundamentals DRFT 1010 and CAD Drafting – Applied DRFT 1011. PLAR for either of these courses is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty.

25. Explain how current faculty are qualified to deliver the program. If they are not, how will this issue be addressed?

As per the VCC Qualifications for Faculty Members policy and procedures, all current faculty members meet the area hiring criteria and have the appropriate balance of employment experience, academic and/or professional/industry credentials, with a commitment to teaching excellence.

Consultation Overview

26. With whom have you consulted internally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of feedback (refer to Appendix XX):

So far to date we have consulted with:
- Dean of Design, Graham Webber, many times in the last year. Graham has indicated his support and stated that the VCC PAC has been advocating for this for some time now.
- Dean of Health Sciences, Debbie Sargent on Sept. 1st and 21st, 2015. Debbie has indicated her support as well.
- Dean for Centre for Instructional Development, Susie Findlay (several meeting in the last year). Susie has indicated the support of her area to provide assistance required for program development.
- Instructional Associate for Centre for Instructional Development, Garth Manning (numerous meetings and continual consulting). Garth has indicated the support of his area to provide assistance required for program development.
- Marketing & Communication Officer, Kristy Neville (several meetings in the last year). Kristy has indicated her support and is working on new initiatives to support the new programs.
Proposal for New Program

- Student Recruitment Specialist, Niki Scarfo on Sept. 8th, 2015. Niki has indicated her support and is working on new initiatives to support the new programs.
- Interim Director, Marketing and Communications, Karen Wilson (Oct 2nd, 2015). Karen has indicated her support for moving forward with these programs.
- Interim Registrar and Director Institutional Research, Brian Beacham (Oct 6th, 2015) Brian has indicated the support of his areas and to provide assistance required for proposals.
- Associate Registrar Records, Raymond Kaan (Oct 2nd, 2015) Raymond has indicated the support of his areas and provides new course names and numbers for proposals.
- Dean, International & Immigrant Education, Tina Chow (Oct 6th, 2015) Tina has indicated her support for moving forward with these programs.
- Director, Aboriginal Services, Kory Wilson (Nov 17th, 2015) Kory has indicated his support for moving forward with these programs.

27. With whom have you consulted externally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of discussions.

The VCC Program Advisory Committee (PAC) was consulted in November 2014 and February 2015 to present this new program for feedback. The PAC encouraged the department to proceed. A follow up meeting to discuss the results of the curriculum development work was held Oct 8th, 2015. The PAC is in full support of the new programs, and feels the new technology additions and program redesign will make the program stronger, more competitive, especially due to the potential for the accreditation from ASTTBC.

Geoff Sale of the ASTTBC visited the college in January 2015 and is also in full support and has encouraged the department to apply for accreditation having determined the proposed new program is aligned with the criteria. Charles Joyner, Registrar of ASTTBC, has forwarded their letter of support which is included with this proposal (see letter of support attached to this submission).
Proposal for New Program

B. Business Case

Institutional Resources

1. What expertise, equipment, facilities and library resources will the program require to support student learning? Ensure that any required new resources in these areas are identified in the Costs section (I).
   The only addition will be Program Assistant support.

2. Outline anticipated requirements for equipment, specialized space, etc.: (classrooms, labs, shops, general space)
   None will be required.

Costs and Revenue (to be prepared by Dean/Associate Dean in consultation with developer)

Budgetary requirements are provided for information purposes only. Program approval does not ensure budgetary support.

Non-Recurring Costs

What will be the costs? Please provide accurate estimates.

<table>
<thead>
<tr>
<th>Academic non-recurring estimated start-up costs (e.g., equipment costs/other)</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
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<tbody>
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<td>Curriculum development</td>
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<td>Faculty recruitment</td>
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<tr>
<td>Staff – PD / enrichment</td>
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<td><strong>Sub-total</strong></td>
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Capital Costs (Equipment, Renovations)

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<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
</table>

| **Sub-total** | | | | | | |

Totals

<table>
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<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
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<td>Academic Non-Recurring</td>
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<td>Capital Costs</td>
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<tr>
<td><strong>Totals</strong></td>
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## Proposal for New Program

### Ongoing Costs

#### Operating Costs

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<tr>
<th>Item</th>
<th>No. of Items</th>
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<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
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<td>Required service courses*</td>
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<tr>
<td>Administrative Support</td>
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<tr>
<td>Advisor</td>
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<td>Specialized IET</td>
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<td></td>
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<tr>
<td>Specialized IT Support</td>
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<tr>
<td>Library</td>
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<tr>
<td>Lab operating costs - Salary</td>
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<td>Lab operating costs – Non-Salary</td>
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<tr>
<td>Ongoing research costs</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
<td>Same operational costs as current</td>
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<td></td>
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<td><strong>Grand Totals</strong></td>
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</tr>
</tbody>
</table>

Summarize costs identified in Appendix XX Consultations, not including Library costs

*Explain required service courses

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### Revenue

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Courses</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
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<td>Tuition</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Indicate the specific source(s) of funding for development, both internal and external.

Will apply for Curriculum Development funding in the Spring.

Indicate the specific source(s) of funding for delivery, both internal and external.

Tuition + base funding

---

Signature of Dean submitting concept document  Date
Proposal for New Program

APPENDICES

1. Employment and Social Development Canada projection (COPS) Sept 2015
4. Letter of support from ASTTBC
Steel Detailing Technician Certificate

Program Content Guide

Effective Date: September 2016
Purpose

Graduates of this program will have developed the drafting and 3D modeling skills which will enable them to enter the workforce in many areas as team members principally in structural steel fabrication companies, miscellaneous metals fabrication companies, and steel detailing offices. Graduates will be prepared to work on a wide variety of structures in North America, including schools, sports stadiums, bridges, commercial buildings and high-rise offices.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

• Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ Computer Aided Drafting (CAD) skills to produce drawings from data, designs and/or specifications.
• Develop drafting and related trade knowledge.
• Develop 3D modeling and related trade skills and knowledge.
• Utilize critical thinking, team building and interpersonal communication skills.
• Utilize data from current building codes and fabrication standards to develop practical connections between components that are code-compliant and practical to fabricate and install on site.
• Use structural engineering drawings and specifications to prepare three dimensional models of structures that utilise structural steel.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce structural steel fabrication and arrangement drawings from data, designs and/or specifications.
• Prepare a comprehensive professional portfolio.
• Prepare a résumé and letters of application, and perform other related job search skills.

Instructional Activities, Design and Delivery Mode

This course uses project based learning strategies with instructional presentations and laboratory work using Autodesk AutoCAD and Tekla steel detailing software. Students may be required to do assignments at home and lab work outside class time on both theory and individual projects.

Program Duration

Ten (10) months, comprised of three levels.

Evaluation of Student Learning

Students are evaluated by:

• practical projects
• exams
• drawings
• presentations

Credential

Students receive a Steel Detailing Technician Certificate upon successful completion of the program.
Admission Requirements

- Grade 12 graduation or equivalent
- Apprenticeship and Workplace Math 11 or take the Request for Transfer Credit PDF form.

Requests for diploma eligibility received after the program has started will not be approved.

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.

VCC CAD Citation graduates may insert into level 2 of the program.

Prior Learning Assessment & Recognition (PLAR)

PLAR is available for select courses. See individual Course Outlines for details.

Recommended Characteristics of Students

- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- Interest in all aspects of architecture, engineering, general construction and related fields.
# Program Content Guide
## Steel Detailing Technician Certificate

### Course Credits

<table>
<thead>
<tr>
<th>Term/Level</th>
<th>Course #</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DRFT 1010</td>
<td>CAD Drafting - Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1011</td>
<td>CAD Drafting - Applied</td>
<td>3.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
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<tr>
<td>2</td>
<td>DRFT 1290</td>
<td>Structural Steel Fabrication Codes and Standards</td>
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<tr>
<td>2</td>
<td>DRFT 1291</td>
<td>Introduction to Steel Detailing</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1292</td>
<td>Structural Bolting and Welding</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1293</td>
<td>Industrial and Commercial Basic Framing</td>
<td>4.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1294</td>
<td>Connection and Layout Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1295</td>
<td>Detailing of Inclined Components</td>
<td>4.0</td>
</tr>
<tr>
<td>2</td>
<td>DRFT 1296</td>
<td>Miscellaneous Metals Detailing</td>
<td>2.0</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1380</td>
<td>AutoCAD 3D and Assemblies</td>
<td>2.0</td>
</tr>
<tr>
<td>3</td>
<td>DRFT 1391</td>
<td>Introduction to BIM Software</td>
<td>3.0</td>
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<tr>
<td>3</td>
<td>DRFT 1392</td>
<td>Working with BIM Software</td>
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<td>3</td>
<td>DRFT 1370</td>
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<td>DRFT 1393</td>
<td>Heavy Structural Steel Framing</td>
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<td>3</td>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
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<tr>
<td>3</td>
<td>DRFT 1352</td>
<td>Structural Steel Trusses</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Program Total Credits:** 40.0

This guide is intended as a general guideline only. The college reserves the right to make changes as appropriate.
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRFT 1010</td>
<td>CAD Drafting - Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces the student to the world of technical drafting and the tools, terminology and media required to create working drawings of simple and more complex shapes. Students learn and apply the techniques for accurately drawing components, and fully representing them graphically.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1011</td>
<td>CAD Drafting - Applied</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>In this course, the student builds on the graphical emphasis of DRFT 1010 by studying and applying the conventions of drawing annotation and completing a capstone project.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>In this course, the students examine the safety aspects of a career in a construction-related field, with particular reference to precautions taken on entering a working construction site, as well as precautions related to workplace harassment and violence prevention.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
<td>1.0</td>
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<tr>
<td></td>
<td>In this course, the student will apply a wide variety of mathematical techniques with the degree of accuracy required to solve technical problems appropriate for a CAD technician.</td>
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</tr>
<tr>
<td>DRFT 1290</td>
<td>Structural Steel Fabrication Codes and Standards</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces the students to the codes and standards that govern the Canadian steel construction industry at both national and local levels, including those documents developed by fabricators. The student will use the data in those documents to develop details that comply with current standards.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1291</td>
<td>Introduction to Steel Detailing</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>The course introduces the students to the structural steel sections used in steel construction, the processes used in the fabrication shop to manufacture the building components, and the drawings used and created by the steel detailer.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1292</td>
<td>Structural Bolting and Welding</td>
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<tr>
<td></td>
<td>In this course, the students apply the knowledge gained in DRFT 1290 and DRFT 1291 to practical bolting and welding situations. Through use of tables and standards data, students will develop fully detailed bolted and welded connections, employ appropriate symbols, and gain an understanding of the differences in these operations in the fabrication shop and on the construction site.</td>
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<tr>
<td>DRFT 1293</td>
<td>Industrial and Commercial Basic Framing</td>
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<tr>
<td></td>
<td>This course introduces students to the basic concepts behind structural steel square framing, and prepares them for the development of their first steel detailing project drawings.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1294</td>
<td>Connection and Layout Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>In this non-computer based course, the students are introduced to details and connections for inclined components, the procedures for calculating their dimensions, and the appropriate ways to show those dimensions on the shop drawings.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<td>------------</td>
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<tr>
<td>DRFT 1295</td>
<td><strong>Detailing of Inclined Components</strong></td>
<td>4.0</td>
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<tr>
<td></td>
<td>This course builds on the concepts and techniques learned in DRFT 1293 and DRFT 1294 to enable the students to detail representative components of a complex steel structure that includes sloping structural members.</td>
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<tr>
<td>DRFT 1296</td>
<td><strong>Miscellaneous Metals Detailing</strong></td>
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<tr>
<td></td>
<td>This course builds on the concepts learned in DRFT 1295, and introduces the students to the different detailing rules and conventions required to produce drawings of the lighter components, specifically guardrails, stair handrails, welded frame platforms and steel flooring materials.</td>
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<tr>
<td>DRFT 1326</td>
<td><strong>Job Search Skills</strong></td>
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<tr>
<td></td>
<td>The student will prepare a resume and letter of application. Locating job vacancies, assessing marketable skills and interview skills will be covered.</td>
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<tr>
<td>DRFT 1352</td>
<td><strong>Steel Trusses</strong></td>
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<tr>
<td></td>
<td>This course prepares the students to read and interpret engineering drawing and tabular data relating to structural steel trusses, and to generate from this information shop fabrication drawings of welded and bolted steel trusses.</td>
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<tr>
<td>DRFT 1370</td>
<td><strong>Technical Communications</strong></td>
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<tr>
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<td>In this course, the student will learn to communicate clearly, concisely and correctly in writing and in person in various technical communication situations.</td>
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<td>DRFT 1380</td>
<td><strong>AutoCAD 3D and Assemblies</strong></td>
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<tr>
<td></td>
<td>In this course, the student's cumulative drafting skills are brought together in a project centered on the production of a set of drawings required for the assembly of a multi-part mechanical component. The students further develop their CAD skills by applying and adapting them to the 3D environment.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1391</td>
<td><strong>Introduction to BIM Software</strong></td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>In this course, the students learn the fundamentals of a contemporary specialist Building Information Modelling software application. Through the use of a specialty training manual, students will create a working model of a steel building and create fabrication and general arrangement drawings from the model.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1392</td>
<td><strong>Working with BIM software</strong></td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Having acquired the basic skills associated with BIM software in DRFT 1391, the students will apply and develop those skills through the creation of structural steel building models of a more complex nature.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1393</td>
<td><strong>Heavy Structural Steel Framing</strong></td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>This course introduces the students to structural steel subject to high axial loading and bending moments, to connections that are specifically designed to resist bending, and to the special fabrication, bolting and welding considerations for highly stressed structural elements and those subject to load reversal.</td>
<td></td>
</tr>
</tbody>
</table>
Transcript of Achievement

All evaluations at completion of semesters are reported to the Student Records Department to produce a Transcript of Achievement. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

Letter Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Distinguished</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>Failing grade</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>Ceased to attend and did not complete requirements.</td>
<td>0.00</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
<td>N/A</td>
</tr>
<tr>
<td>R</td>
<td>Audit. No credit</td>
<td>N/A</td>
</tr>
<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as &quot;F&quot; if not fulfilled</td>
<td>N/A</td>
</tr>
<tr>
<td>IP</td>
<td>In progress</td>
<td>N/A</td>
</tr>
<tr>
<td>@</td>
<td>Non-payment of fees</td>
<td>N/A</td>
</tr>
<tr>
<td>RW</td>
<td>Required to withdraw</td>
<td>N/A</td>
</tr>
<tr>
<td>NA</td>
<td>No grade available at time of printing</td>
<td>N/A</td>
</tr>
<tr>
<td>ANC</td>
<td>Anecdotal evaluation</td>
<td>N/A</td>
</tr>
<tr>
<td>TC</td>
<td>Transfer credit</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.
2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.
3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
4. In order to be granted a certificate on completion of the program, a student must maintain a GPA equivalent to a C average. A student will not receive a certificate if they fail to maintain a C average, or if they receive an F grade in any course or courses.
Course Name: Structural Steel Fabrication Codes and Standards

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

School or Centre: School of Music, Dance and Design  Department: CAD and BIM Technologies

Course Number: DRFT 1290  Number of Credits: 1.0

Course History:

Name of Replacing Course: 1st Year Post-secondary

Course Pre-requisites (if applicable):

All Level 1 courses

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No  ☑ Yes (details below):

Course Description:

This course introduces the students to the codes and standards that govern the Canadian steel construction industry at both national and local levels, including those documents developed by fabricators. The student will use the data in those documents to develop details that comply with current standards.
**Instructional Strategies:**
Lecture, group work and problem-based learning activities are employed to assist the student in applying appropriate standards to their drawings.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to;

- Describe and differentiate between the eight sections of the CISC Handbook of Steel Construction
- Employ charts and tables within the Handbook commonly used by steel detailers
- Identify the appropriate Canadian standards for welding, bolting, and steel surface preparation
- Identify the topics typically included in a steel fabricator's shop procedures manual.

**Program Learning Outcomes:**
This course serves the following programs;

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
**Evaluation/Grading System**

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

**Components and Weighting of the Assessment/Evaluation Plan:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Use of tables (CISC Handbook)</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Design of steel structures (CISC Handbook)</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Fabricator standards</td>
</tr>
<tr>
<td>Project</td>
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<td>Total</td>
<td>100</td>
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**Learning Environment/Type**

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>10</td>
<td>Project</td>
</tr>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
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<tr>
<td>Total</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Canadian Institute of Steel Construction Handbook contents
- Canadian Welding Bureau Welding Standard
- Steel Structures Painting Council Standard
- Summative project

VCC Education and Education Support Policies

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http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

**Course Name:** Introduction to Steel Detailing

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
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</thead>
<tbody>
<tr>
<td>Revised Course</td>
<td>1st Year Post-secondary</td>
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</table>

<table>
<thead>
<tr>
<th>Name of Replacing Course (if applicable):</th>
<th>Course Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Properties and Fabrication</td>
<td>DRFT 1291</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

All Level One courses.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- No
- Yes (details below):

**Course Description:**

The course introduces the students to the structural steel sections used in steel construction, the processes used in the fabrication shop to manufacture the building components, and the drawings used and created by the steel detailer.
**Instructional Strategies:**
The theory based course combines reference materials, instructional lectures and videos, and a field trip to a steel fabrication shop.

---

**Course Learning Outcomes:**
Upon successful completion of this course, students will be able to:
- Describe the process for manufacturing structural steel sections
- Name and identify the features of contemporary structural steel sections
- Identify and describe the uses of fabrication shop equipment
- Describe the fabrication process from raw steel delivery to finished product storage
- Read and interpret construction drawings
- Describe the features to be included in the structural steel fabrication drawing
- Describe the features to be included in the structural steel erection drawing

---

**Program Learning Outcomes:**
This course serves the following programs:

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>10</td>
<td>Steel manufacture</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>20</td>
<td>Steel section features</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Construction drawing reading</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Fabrication processes</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>20</td>
<td>Drawing features</td>
</tr>
</tbody>
</table>

Total 100%

## Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>L - Classroom</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 30

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

Course Topics and Sequence Covered:

- Structural steel production
- Structural steel shapes, features and uses
- Shop fabrication equipment and processes
- Symbols, terminology and abbreviations used on construction drawings
- Steel detail drawing features
- Steel erection drawing features

VCC Education and Education Support Policies

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FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
**Course Name:** Structural Bolting and Welding  

**Department Head/Coordinator:** Bruce McGarvie  

**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Course</td>
<td>1st Year Post-secondary</td>
</tr>
<tr>
<td>Name of Replacing Course (if applicable):</td>
<td></td>
</tr>
<tr>
<td>DRFT 1290 Structural Steel Codes and Standards</td>
<td></td>
</tr>
<tr>
<td>DRFT 1291 Introduction To Steel Detailing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Pre-requisites (if applicable):</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRFT 1290 Structural Steel Codes and Standards</td>
</tr>
<tr>
<td>DRFT 1291 Introduction To Steel Detailing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Co-requisites (if applicable):</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

| PLAR (Prior Learning Assessment & Recognition) | |
|-----------------------------------------------||
| ☒ No ☐ Yes (details below): | |

**Course Description:**

In this course, the students apply the knowledge gained in DRFT 1290 and DRFT 1291 to practical bolting and welding situations. Through use of tables and standards data, students will develop fully detailed bolted and welded connections, employ appropriate symbols, and gain an understanding of the differences in these operations in the fabrication shop and on the construction site.
**Instructional Strategies:**
Lectures, handouts, demonstration and group work.

---

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to;

- Identify and differentiate between the four principal weld types used in steel fabrication
- Calculate weld capacities, sizes and lengths, using tables.
- Apply the correct welding symbology to enable the welder to perform the correct weld
- Identify the factors that determine weld type to be used in shop on on site
- Identify the bolt grades used in steel construction
- Describe the bolt installation and inspection process
- Calculate, using tables, bolt quantities, sizes and lengths

---

**Program Learning Outcomes:**
This course serves the following programs;

- Steel Detailing Technician Certificate
- CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>30</td>
<td>Weld capacities and symbols</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>30</td>
<td>Bolt calculations</td>
</tr>
<tr>
<td>Project</td>
<td>40</td>
<td>Detailed connection design</td>
</tr>
</tbody>
</table>

Total 100

Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 30

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Weld types
- Weld strength calculations
- Weld symbology
- Bolt types
- Bolt strength calculations
- Shop and jobsite considerations
- Design project

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

| Date Approved by Education Council: | Date Approved by VCC Board (if applicable): |
**Course Name:** Industrial and Commercial Basic Framing

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement Course</td>
<td>1st Year Post-secondary</td>
</tr>
<tr>
<td><strong>Name of Replacing Course (if applicable):</strong></td>
<td><strong>Course Number:</strong></td>
</tr>
<tr>
<td>1231 Square Framing</td>
<td>DRFT 1293</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Course Pre-requisites (if applicable):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Steel Detailing</td>
</tr>
<tr>
<td>Structural Bolting and Welding</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Course Co-requisites (if applicable):</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>PLAR (Prior Learning Assessment &amp; Recognition):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☒ No  ☐ Yes (details below):</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Course Description:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This course introduces students to the basic concepts behind structural steel square framing, and prepares them for the development of their first steel detailing project drawings.</td>
</tr>
</tbody>
</table>
Instructional Strategies:
Lectures, handout materials, video presentations and project/problem based learning activities are used as the students plan and produce their first detailed steel fabrication drawings.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

- Read and interpret structural engineering drawings of simple square-framed structures
- Demonstrate the basic requirements for connecting members in a steel frame
- Apply tabular data from the steel standards documents in the production of shop drawings
- Produce detail drawings of beams and columns within a square framed steel structure
- Develop erection drawings for use on the construction site

Program Learning Outcomes:
This course serves the following programs;

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>70</td>
<td>Problem/project-based major assignment comprising 10 drawings</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>10</td>
<td>Written test</td>
</tr>
<tr>
<td>Exam</td>
<td>20</td>
<td>Drawing test</td>
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</tbody>
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Total 100

### Learning Environment/Type

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<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
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<tbody>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 120

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Standard steel connections
- Beam loading conditions
- Calculations for bolted connections
- Basic beam and column detailing
- Light commercial framing
- Open web joist connections
- Creating erection drawings

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<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

Course Name: Connection and Layout Geometry

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

School or Centre: School of Music, Dance and Design  Department: CAD and BIM Technologies

Course History:

Replacement Course: 1st Year Post-secondary
Name of Replacing Course (if applicable): 1232 Applied Geometry

Course Number: DRFT 1294  Number of Credits: 2.0

Course Pre-requisites (if applicable):
DRFT 1013 Construction Mathematics
DRFT 1293 Industrial and Commercial Basic Framing

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  ☒ No ☐ Yes (details below):

Course Description:
In this non-computer based course, the students are introduced to details and connections for inclined components, the procedures for calculating their dimensions, and the appropriate ways to show those dimensions on the shop drawings.
Instructional Strategies:
Lectures, handouts, and worksheets are used to teach the principles, and drawing-based problem solving exercises allow the student to demonstrate accurate calculation and correct layout of the required dimensions.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

• Recognise and solve geometrical configurations requiring calculations using trigonometry
• Compute dimensions, angles and bevels for inclined structures
• Apply appropriate dimensions for bracing connections
• Generate dimensions for stair assemblies

Program Learning Outcomes:
This course serves the following programs;

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quizzes/Tests</td>
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</tr>
<tr>
<td>Exam</td>
<td>15</td>
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<tr>
<td>Exam</td>
<td>15</td>
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Total 100

### Learning Environment/Type

<table>
<thead>
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<tbody>
<tr>
<td>L - Classroom</td>
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</table>

Enter Total Hours 60

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Outline

Course Topics and Sequence Covered:

• Basic trigonometry
• Application of geometry to structures
• Bracing dimension layouts
• Stair dimension layouts

VCC Education and Education Support Policies

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

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<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

**Course Name:** Detailing of Inclined Components

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
<thead>
<tr>
<th>School or Centre:</th>
<th>Department:</th>
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<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
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<table>
<thead>
<tr>
<th>Course History:</th>
<th>Year of Study:</th>
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<tbody>
<tr>
<td>Replacement Course</td>
<td>1st Year Post-secondary</td>
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**Name of Replacing Course (if applicable):** 1350 Detailing Using Geometry  
**Course Number:** DRFT 1295  
**Number of Credits:** 4.0

**Course Pre-requisites (if applicable):**
- DRFT 1293 Industrial and Commercial Basic Framing
- DRFT 1294 Connection and Layout Geometry

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**
- ☒ No  
- ☐ Yes (details below):

**Course Description:**
This course builds on the concepts and techniques learned in DRFT 1293 and DRFT 1294 to enable the students to detail representative components of a complex steel structure that includes sloping structural members.
Instructional Strategies:
This course utilizes lectures, handouts, on-screen presentations, group discussion and problem solving, and design teams. The majority of the course duration is reserved for student drawing output.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

• Create geometry layout drawings of bracing systems that show bevels, clearances and key dimensions
• Demonstrate the essential requirements of braced connections
• Develop column and beam connections at bracing node points
• Develop connections of stairs to primary steel members
• Create shop fabrication drawings of brace members
• Create shop fabrication drawings of steel stair assemblies

Program Learning Outcomes:
This course serves the following programs;

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
<thead>
<tr>
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<tbody>
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### Components and Weighting of the Assessment/Evaluation Plan:

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Total 100

### Learning Environment/Type

<table>
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<th>Hours Per Instruction Type</th>
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<tr>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</tr>
</tbody>
</table>

Enter Total Hours 120

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Reading project drawings and specifications
- Creating geometry layouts
- Designing steel connections
- Detailing of bracing components
- Detailing of steel stairs

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## Course Name:
Miscellaneous Metals Detailing

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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</tbody>
</table>

**Course History:**  
1st Year Post-secondary

### Course Pre-requisites (if applicable):
Level One courses  
DRFT 1295 Detailing of Inclined Components

### Course Co-requisites (if applicable):

### PLAR (Prior Learning Assessment & Recognition)
- No
- Yes (details below):

### Course Description:
This course builds on the concepts learned in DRFT 1295, and introduces the students to the different detailing rules and conventions required to produce drawings of the lighter components, specifically guardrails, stair handrails, welded frame platforms and steel flooring materials.
Instructional Strategies:
Lecture, demonstration, project-based drawing assignments

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Describe the features of industrial steel handrailings
- Describe the differences between handrail and guardrail
- Develop connections for permanent and removable steel handrail components
- Create shop fabrication drawings for steel handrail, guardrail and stair handrail
- Create shop fabrication drawings of welded light framing assemblies
- Create layout drawings for the fabrication and installation of steel flooring systems

Program Learning Outcomes:
This course serves the following programs:

Steel Detailing Technician Certificate
CAD and BIM Technician Diploma

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
### Evaluation/Grading System

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<tbody>
<tr>
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<td>Project-based major assignment comprising 7 drawings</td>
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<td>Quizzes/Tests</td>
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### Learning Environment/Type

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<th>Comments</th>
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<tbody>
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</table>

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Handrail and guardrail detailing
- Welded frame detailing
- Steel checkerplate and grating detailing

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To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Structural Steel Trusses

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

<table>
<thead>
<tr>
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<tbody>
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Course History:  
Revised Course:  
Name of Replacing Course:  
(if applicable): DRFT1351 Heavy Structural Steel Framing

<table>
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<td>2.0</td>
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Course Pre-requisites (if applicable):  
DRFT1351 Heavy Structural Steel Framing

Course Co-requisites (if applicable):  

PLAR (Prior Learning Assessment & Recognition)  
☒ No ☐ Yes (details below):

Course Description:  
This course prepares the students to read and interpret engineering drawing and tabular data relating to structural steel trusses, and to generate from this information shop fabrication drawings of welded and bolted steel trusses.
Instructional Strategies:
Lectures, handouts, and worksheets are used to teach the principles, with group work being employed to gain appreciation of some of the more complex connection issues. Analysis of the project requirements leads to the creation of the shop drawings, which occupies the majority of the course duration.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

• Read and interpret engineering drawings of structures containing steel trusses
• Describe and illustrate the relationship of engineering data to the fabrication drawing
• Prepare a fully-detailed steel truss, complete with appropriate notes and bill of material.

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
• Prepare résumé, letters of application and perform other related job search skills.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
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<td>Letter Grades</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
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**Total 100**

## Learning Environment/Type

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**Enter Total Hours**: 60

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- History and development of truss types, with examples
- Reading steel truss engineering drawings and data
- Conventions used in truss fabrication drawings
- Truss geometry (including camber adjustments)
- Dimensioning, labelling and notations
- Truss welding
- Use of multiple drawing sheets for one component

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Course Name: Introduction to BIM Software

Department Head/Coordinator: Bruce McGarvie

Effective Date: September 2016

<table>
<thead>
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<th>School or Centre:</th>
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<td>School of Music, Dance and Design</td>
<td>CAD and BIM Technologies</td>
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<th>Year of Study:</th>
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<td>Replacement Course</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1359 Using 3D Detailing Software</td>
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<tbody>
<tr>
<td>DRFT 1391</td>
<td>3.0</td>
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Course Pre-requisites (if applicable):

DRFT 1390 AutoCAD 3D and Assemblies

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☑ No ☐ Yes (details below):

Course Description:

In this course, the students learn the fundamentals of a contemporary specialist Building Information Modelling software application. Through the use of a specialty training manual, students will create a working model of a steel building and create fabrication and general arrangement drawings from the model.
Instructional Strategies:
Self-paced software workbook, augmented with lecture, demonstration, student research and group activities.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

• Describe the process of creating a large structural building model and creating drawings from the model
• Use BIM software to:
  • Create a building grid and principal elevation levels
  • Insert structural steel members both on and off grid
  • Connect the steel sections with workable steel to steel connections
  • Initiate clash check procedures to ensure proper fit of parts
  • Conduct the numbering procedure for all parts of the model
• Generate 2D drawings from the building model

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
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### Evaluation/Grading System

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### Components and Weighting of the Assessment/Evaluation Plan:

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<th>Type</th>
<th>Percentage</th>
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<tr>
<td>Quizzes/Tests</td>
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Total 100

### Learning Environment/Type

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<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 90

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

• BIM software interface
• BIM software workbook
• Grid creation
• Inserting steel section
• Connecting the model
• Clash check
• Part numbering
• Shop drawing creation

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</table>

**Course Name:** Working with BIM software

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2016

<table>
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<td>New Course</td>
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<tr>
<th>Name of Replacing Course (if applicable):</th>
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<tbody>
<tr>
<td>DRFT 1391 Introduction to BIM Software</td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**

DRFT 1391 Introduction to BIM Software

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**

- [x] No  
- [ ] Yes (details below):

**Course Description:**

Having acquired the basic skills associated with BIM software in DRFT 1391, the students will apply and develop those skills through the creation of structural steel building models of a more complex nature.
Instructional Strategies:
Lecture, demonstration, group work and case study

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

• Manipulate the interface to promote efficient modelling practise
• Create default settings for parts to be modelled
• Edit grids, steel sections, positions and connections
• Insert stairs, handrails and flooring
• Adapt numbering systems to client requirements
• Edit shop drawings to meet individual customer drafting standards
• Create reports from the model
• Create complex shop drawings, erection drawings and anchor bolt plans

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
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<thead>
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<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
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<tr>
<td>Quizzes/Tests</td>
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<tr>
<td>Final Exam</td>
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| Total            | 100%       |                                                                                  |

### Learning Environment/Type

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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>70</td>
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</table>

| Enter Total Hours      | 90                         |          |

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
### Course Outline

- BIM software customization
- Setting project information and defaults
- Editing an existing model
- Inserting special components - stairs, handrails, ladders, flooring
- Producing reports
- Drawing production and editing

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<tbody>
<tr>
<td></td>
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</table>
Course Name: Heavy Structural Steel Framing

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD and BIM Technologies

Course History:
Revised Course:  
Name of Replacing Course:  
(if applicable):  
Year of Study: 1st Year Post-secondary

Course Number: DRFT 1393  
Number of Credits: 4.5

Course Pre-requisites (if applicable):
Detailing of Inclined Components

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  
☐ No ☐ Yes (details below):

Course Description:
This course introduces the students to structural steel subject to high axial loading and bending moments, to connections that are specifically designed to resist bending, and to the special fabrication, bolting and welding considerations for highly stressed structural elements and those subject to load reversal.
Instructional Strategies:
Lecture, focus groups, Power Point demonstration, handouts, group presentations, quizzes.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to;

• Analyze engineering drawings and data relating to heavily loaded structures
• Determine geometric relationships of steel components
• Develop connection details for moment-resisting connections, and others subject to load reversal
• Describe full-strength welding joint types, and the procedures to create and test them
• Demonstrate the symbology used to define full-strength welding joint types
• Distinguish between partial and complete joint penetration welds
• Prepare shop fabrication drawings for components in a heavily loaded steel structure

Program Learning Outcomes:
Graduates of this program will have acquired the skills and knowledge to:
• Describe concepts, and use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ current Computer Aided Drafting (CAD) and three dimensional modelling systems as a tool to produce drawings from data, designs and/or specifications.
• Apply terminology and conventions used in drafting and 3D modeling.
• Develop drafting, 3D modeling and related trade skills and knowledge.
• Demonstrate and utilize critical thinking, team building and interpersonal communication skills.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
• Apply concepts of civil technology and planning to produce drawings and three dimensional models for the development of an industrial site.
• Use structural engineering theories to prepare engineering drawings and three dimensional models of structures, which incorporate reinforced concrete and structural steel.
• Prepare a comprehensive professional portfolio.
• Prepare résumé, letters of application and perform other related job search skills.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
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<td>Weld symbols</td>
</tr>
<tr>
<td>Exam</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td>70%</td>
<td>Project-based major assignment comprising 8 drawings</td>
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</table>

Total: 100%

### Learning Environment/Type

<table>
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<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
<td>L - Classroom</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</table>

Enter Total Hours: 135

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Engineering drawing comprehension
- Moment connections, movement joints and girt connections
- Complex bracing connections
- Composite columns
- Overhead crane supports
- Rigid Frame components
- Wind Posts
- Full-strength welding
- Girts and Purlins
- Welded frames

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council</th>
<th>Date Approved by VCC Board (if applicable)</th>
</tr>
</thead>
</table>

PREPARED FOR: Education Council

ISSUE: New Drafting credential: CAD Technician Citation

BACKGROUND:
This proposal, presented by Bruce McGarvie, was part of a group of proposals from the Drafting Program presented at the 15 December 2015 Curriculum Committee. Taken together the proposals represented a significant restructuring of the Drafting Program. The committee decided that one part of the proposal group, that dealing with a new Drafting Diploma should not go forward at this time as it did not contain significant higher level content as required by VCC policy and PSIPS. This note deals with the changes proposal for a new Drafting Citation. This new credential would be 14 credits and is designed to make students employable with basic drafting skills and knowledge.

If Education Council recommends this proposal it will move on to the College Board for either approval in principle or final approval.

DISCUSSION:
As noted in “Background” there was a great deal of discussion regarding the nature of the proposed new diploma before it was decided to not move it forward. Regarding the Citation, a clarification in Math admission requirements was necessary and inappropriate use of “laddering” was changed to “opportunity to transfer”.

RECOMMENDATION:
Curriculum Committee recommends Education Council recommend the College Board approve a new Drafting credential: CAD Technician Citation.

Prepared by:
David Branter
Chair, Curriculum Committee
Proposal for New Program

**Name of Proposed Program:** CAD Technician Citation

Additional material may also be included as appendices. For information about submitting the completed Proposal for New Program, please contact the Centre for Instructional Development.

Curriculum development is a consultative process. Therefore, it is understood that this is a living document which will be refined as it moves through the development process.

**A. Concept**

- **Department Leader:** Bruce McGarvie
- **Faculty:** School of Music, Dance and Design
- **Dean:** Debbie Sargent
- **Proposal Date:** September 2016

If this is a joint educational offering, name of other institution (refer to Affiliation Agreement Policy C.3.10):

---

**Purpose and Context**

1. Describe in detail the program’s objectives and a description of the program outcomes, including a list of the occupations or roles that graduates will be prepared for:

Graduates of this new program will have developed the Computer Aided Drafting (CAD) skills which will enable them to enter the workforce in many areas as team members in building and developer firms, architectural firms, municipal, provincial or federal offices, as well as in private industry. Graduates will be able to work on a wide variety of new home design and construction projects, home renovations, and development work.

The successful graduate can also ladder directly into Level 2 of any of the three (3) CAD and BIM Technician Certificate programs to build on the skills learned in this program.

This new program will address the need for a shorter program giving the graduate marketable skills to gain employment sooner but allow the graduate to return later to broaden their skills.

Upon successful completion of the program, the student will be able to:

- Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
- Employ Computer Aided Drafting (CAD) skills to produce drawings from data, designs and/or specifications.
- Develop drafting and related trade knowledge.
- Demonstrate an understanding of drafting skills and conventions.
- Prepare a comprehensive professional portfolio.
- Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.
Proposal for New Program

2. Explain how this program adheres to principles and priorities as indicated in the College’s strategic, educational or ministerial planning documents:

The design of this new program supports the College’s Strategic Initiatives and Education Plan, as demonstrated by the following:

- The program is designed to support the BC Government’s “Labour Market 2020” forecast for increased demand in the technical and trades segment for the energy industry infrastructure, LNG and major hydro projects.
- The program aligns with the learning outcomes outlined in the accreditation criteria for Applied Science Technologists and Technicians of BC (ASTTBC) and the Technology Accreditations Canada (TAC). The Citation program graduate can ladder directly into the other Certificate and Diploma programs that lead to accreditation.
- This program addresses the special needs of newcomers to Canada as well as international students looking to gain knowledge in the local industry.
- This program is well suited for students with certain physical disabilities provided the computer work station can be adapted for their use. This reduces barriers for those in wheelchairs or with walking difficulties.
- This program includes a significant level of technical knowledge allowing our graduates to be more conversant with the ever evolving innovations of residential drafting and construction. The graduate can join many other fields such as manufacturing, fabrication or entry level mechanical with the training in the foundation of CAD they receive.
- The focus of this new program is to provide relevant high-quality curriculum that leads to student success, while maintaining a positive reputation in the community.

3. Identify how the proposed program supports VCC’s mission, core values, and strategic objectives?

This new program will provide the most current training required by the building and design industry today. The Citation will also provide access to those wishing to pursue a Technician Certificate and a CAD & BIM Technician Diploma.

This program is designed to serve a diverse group of students, and provides accessible and job training for direct entry into the work force.

The CAD & BIM Technologies Department has many partnerships and collaborations. Numerous industry relationships exist in support of student placement. Many engineering firms, architectural firms and contracting/development companies in the greater Vancouver area seek our graduates for placement.

Our Program Advisory Committee has approved and encourages the department’s initiative to develop a shorter program for the industry.

The creation of this program will improve student access and success, and ensure the VCC brand is well known in the local design and construction community.

The Drafting program has historically achieved the highest standards of graduates. As such, it is known in the design and building community for its positive reputation. This new program will continue this tradition in the years to come.

4. How does this program relate to and/or support other programs at VCC?

This program can be a gateway for students who become interested in a higher level of engineering. Students could enter the first year engineering program if they meet the entrance requirements. Conversely, for those students who enter first year engineering and want a program that is more technically focused, the CAD Technician Citation program would be a good option. International students and newcomers to Canada who have completed the ESL program, and local students who have completed the ABE program, can also enter this program.
Proposal for New Program

Program Need

5. What educational gap, if any, is this program intended to fill?

There is a consistent demand for CAD technicians in British Columbia. The drafting program at VCC has been providing skilled drafters for the engineering and construction industries for over five decades. With this new program, the department will be well suited to continue to provide highly skilled technicians ready for today’s market place. Many design/build firms and fabrication companies need hires trained with fundamental drafting skills and CAD knowledge.

6. What evidence is there of student demand for the program?

The Drafting programs at VCC have been successfully delivered each and every year for over half a century, producing the drafters that have assisted in building this city and this province over that time. Many of the local companies delivering drafting and CAD services are either owned by former grads, or have former grads in senior management positions.

7. What evidence is there of labour market, professional or community demand for the graduates (report results)?

From Employment and Social Development Canada projection (COPS) Sept 2051:

“Over the 2013-2022 period, an occupation will be in excess demand (a shortage of workers) if the projected number of job openings is significantly greater than the projected number of job seekers. An occupation will be in excess supply (a surplus of workers) if the projected number of job openings is smaller than the projected number of job seekers. For Technical Occupations In Architecture, Drafting, Surveying And Mapping, over the 2013-2022 period, job openings (arising from expansion demand and replacement demand) are expected to total 16,340 and 10,998 job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.”

From BC government’s Work BC labour market outlook Sept. 2015:

<table>
<thead>
<tr>
<th>Expected number of job openings (2012 - 2022)</th>
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</thead>
<tbody>
<tr>
<td>2012: 300</td>
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<tr>
<td>2017: 300</td>
</tr>
<tr>
<td>2022: 300</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative number of new jobs (2012 - 2022)</th>
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</thead>
<tbody>
<tr>
<td>3,300</td>
</tr>
</tbody>
</table>

% Job openings from replacement: 66 %

% Job openings from expansion: 34 %
Proposal for New Program

From Applied Science Technologists and Technicians of BC (ASTTBC) report “A Strategic Direction for Technology Education and Skills in British Columbia”:

While BC’s technology sector is growing and technology jobs are becoming strategically critical to our knowledge-based economy, other industrialized nations are also in the hunt for such workers. In the Manpower Group’s most recent Talent Shortage Survey (2012), they asked employers throughout the world about which jobs they are having the most difficulty filling. The bottom line is that there is extremely strong competition for technical talent, with “top ten” lists dominated by jobs in Science, Technology, Engineering and Mathematics, including skilled trades.
Proposal for New Program

8. Anticipated start date of program (refer to Appendix XX):

September 2016

Competitive Analysis

9. Which related programs are available in the lower Mainland and/or on-line: how do they compare in terms of focus, intended outcomes, length, costs and size?

There are 2 related programs in the lower Mainland, offered by Kwantlen Polytechnic University (KPU), and Brighton College:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Credential</th>
<th>Credits</th>
<th>Cost*</th>
<th>Duration</th>
<th>Pass marks</th>
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</thead>
<tbody>
<tr>
<td>KPU</td>
<td>CADD CITATION</td>
<td>16</td>
<td>$2243.52</td>
<td>1 SEMESTER</td>
<td>50% pre course, 65% GPA</td>
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<tr>
<td>Brighton College</td>
<td>COMPUTER AIDED DESIGN WITH AUTOCAD</td>
<td>Not Available</td>
<td>$7700.00</td>
<td>15 WEEKS</td>
<td>Not Available</td>
</tr>
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</table>

10. Is this concept supportable and sustainable with existing and/or available resources?

Yes. The current instructors, equipment and support will not need to change.

11. Is this a cohort, selective entry, or open access program? How will the program be rolled out if you are not using a cohort model?

Yes, this will be a cohort based program.

12. What is the expected length of program (in months/years)? What is the maximum allowable time for completion?

The expected length is 14 weeks, with 2 years allowed for completion.

13. How many students would you expect to enroll in each year of the program?

We would expect 2 classes 18-20 (or 36-40 students per year) in the CAD Technician Citation program each year.
Proposal for New Program

Admission and Delivery

14. Provide a detailed list of admission requirements, including language proficiency levels and assessment scores.

Seats are offered to applicants who have met all admission requirements on a first-qualified, first-served basis.

- Grade 12 graduation or equivalent is 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 which includes a Canadian Language Benchmark of Listening 8, Speaking 7, Reading 8 and Writing 7 or better.

VCC CAD & BIM Technologies Department Technician Certificate student who have successfully completed Level 1 may insert into level 2 of the Citation program C CAD & BIM Technologies Department Technician Certificate student who have successfully completed Level 1 may insert into level 2 of the Citation program

15. Will the structure of the program allow for full-time, part-time, evening, weekend, on-line, mixed-mode delivery methods, or a combination of any of these? (Identify each as appropriate).

The program structure will allow for full time, days and/or evenings, Monday to Friday. If enrollments demand more classes, both a day class and an evening class can run concurrently.

16. Will the structure of the program allow for multiple entry and exit points? If there are multiple entry points, please specify requirements for each.

The intended program allows for a student to exit after the Level 1 of the program and enter any of the Technician Certificate programs in the CAD & BIM Technologies Department at Level 2.

Student Profile

17. Who are your target students (age, gender, educational background, work experience)? Where do they come from (recent high school graduates, mature students, transfers from other institutions)? How do you plan to recruit or attract these students? Are there other characteristics applicants should have that you identify as important?

We have three (3) primary target populations of students.
1. Recent high school graduates or 1st year university/college students looking for a career in the technology design professions.
2. Those in their mid to late twenties who are looking for post-secondary training to obtain a better career.
3. Those trades people who have been hurt or laid-off and are looking for retraining through Work Safe or EI, to use the hands-on knowledge they have gained and combine that with technical training to be able to produce construction drawings.

Recruitment activities will include:
- a targeted social media and online campaign
- visiting the area secondary school and meeting with drafting teachers and counselors
- having teachers visit the college and tour our department
- trade shows
Proposal for New Program

- VCC Info nights
- CAD & BIM Technologies Department information sessions
- hosting high school students on Pro-D days and Spring Break

Other important characteristics that applicants should have would include:

- excellent English communication skills
- good mathematical and mechanical comprehension
- ability to work in imperial and metric units of measurement
- general good health
- good hand-eye coordination
- manual dexterity
- successful work habits
- an ability to work well with others
- logical reasoning
- spatial ability
- Interest in all aspects of architecture, engineering, and general construction and related fields.

18. How will the program address the needs of under-prepared students? How will you get these students into appropriate upgrading courses or programs? What options are available...

Students not meeting the program pre-requisites will be able to meet with someone from the Advising Department to determine which courses will help them to best meet the prerequisites.

19. How will the program address equity by decreasing systemic barriers? Is this type of program traditionally or historically underrepresented in specific cohort groups? (e.g., gender and/or age imbalance, First Nations) How will the program address these issues?

Although the engineering and fabrication industry traditionally admits a larger percentage of male applicants than female applicants, females are strongly encouraged to apply. Marketing strategies are being developed to attain more gender balance. The program may be suited for those applicants with physical barriers (wheelchairs, crutches, walkers, etc.) that meet the program requirements as per admissions policy. We are encouraging First Nations students to apply by working closely with the Aboriginal Services Department. Much of the northern development is slated to take place on First National territory.

Quality

20. How will the program ensure educational effectiveness (e.g., retention, progression, completion)?

VCC has been a leader in training drafters for more than 50 years. Our well-respected and longstanding program is widely recognized by many of the industry leaders with a great number of Department managers and company partners as former graduates of the program.

Historically there has been some attrition within Level 1 of the Certificate program. Based on these past attrition rates in first level, we plan to ‘overfill’ our Level 1 to 20 students.

21. Describe how the proposed program incorporates work experience, practicum, clinical practice, etc. (if applicable):
Proposal for New Program

Learning is fostered through seminars, lectures, labs, and problem based learning. Students have opportunities to apply knowledge and practice various abilities while entering various design competitions, for example Skills Canada BC AutoCAD competition.

Although the program does not have a formal practicum component as the industry does not lend itself to a consistent placement model, there are frequent practicum positions that are offered to the department by our PAC members firms and industry relationships. The number and frequency varies from year to year as industry conditions vary.

The program is designed to foster the development of professionalism, a commitment to lifelong learning, and dedication to an ethical profession.

22. Does the program create opportunities for students to transfer credit and/or ladder from/to other programs?

Yes, students completing transfer courses at other institutions can be awarded transfer credits provided they meet the transferability requirements established by the British Columbia Drafting Technologies Articulation Committee of BCCAT.

Citation graduates will have the opportunity to transfer to any of the CAD & BIM Technologies Department’s Technician Certificate programs.

In addition, graduates may ladder into the Science or Engineering programs here at VCC or into other degree and diploma programs such as BCIT’s Civil engineering degree or Technologist Programs, provided they meet the entrance requirements. The student needing some higher level math or science prerequisite courses could upgrade here at VCC as part of their academic pursuit.

23. Will this program allow students to continue with further study? Describe laddering, bridging, or post-credential continuation of education.

As above...

24. Does this program include Prior Learning Assessment and Recognition (PLAR) as per Policy ##?

PLAR is included for two courses in Level 1, CAD Drafting – Fundamentals DRFT 1010 and CAD Drafting – Applied DRFT 1011. PLAR for either of these courses is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty.

25. Explain how current faculty are qualified to deliver the program. If they are not, how will this issue be addressed?

As per the VCC Qualifications for Faculty Members policy and procedures, all current faculty members meet the area hiring criteria and have the appropriate balance of employment experience, academic and/or professional/industry credentials, with a commitment to teaching excellence.

Consultation Overview

26. With whom have you consulted internally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of feedback (refer to Appendix XX):

We have consulted with:

- Dean of Design, Graham Webber, many times in the last year. Graham has indicated his support and stated that the VCC PAC has been advocating for this for some time now.
Proposal for New Program

- Dean of Health Sciences, Debbie Sargent on Sept. 1st and 21st, 2015. Debbie has indicated her support as well.
- Dean for Centre for Instructional Development, Susie Findlay (several meetings in the last year). Susie has indicated the support of her area to provide assistance required for program development.
- Instructional Associate for Centre for Instructional Development, Garth Manning (numerous meetings and continual consulting). Garth has indicated the support of his area to provide assistance required for program development.
- Marketing & Communication Officer, Kristy Neville (several meetings in the last year). Kristy has indicated her support and is working on new initiatives to support the new programs.
- Student Recruitment Specialist, Niki Scarfo on Sept. 8th, 2015). Niki has indicated her support and is working on new initiatives to support the new programs.
- Interim Director, Marketing and Communications, Karen Wilson (Oct 2nd, 2015). Karen has indicated her support for moving forward with these programs.
- Interim Registrar and Director Institutional Research, Brian Beacham (Oct 6th, 2015) Brian has indicated the support of his areas and to provide assistance required for proposals.
- Associate Registrar Records, Raymond Kaan (Oct 2nd, 2015) Raymond has indicated the support of his areas and provides new course names and numbers for proposals.
- Dean, International & Immigrant Education, Tina Chow (Oct 6th, 2015) Tina has indicated her support for moving forward with these programs.
- Director, Aboriginal Services, Kory Wilson (Nov 17th, 2015) Kory has indicated his support for moving forward with these programs.

27. With whom have you consulted externally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of discussions.

The VCC Program Advisory Committee (PAC) was consulted in November 2014 and February 2015 to present this new program for feedback. The PAC encouraged the department to proceed. A follow up meeting to discuss the results was held Oct 8th, 2015. The PAC is in full support of the new Citation program, and feels the graduates will fill a broad range of in demand positions for basic drafters in the fabrication industries and design/build firms.
### Proposal for New Program

#### B. Business Case

**Institutional Resources**

1. What expertise, equipment, facilities and library resources will the program require to support student learning? Ensure that any required new resources in these areas are identified in the Costs section (I).

2. Outline anticipated requirements for equipment, specialized space, etc.: (classrooms, labs, shops, general space)

**Costs and Revenue** (to be prepared by Dean/Associate Dean in consultation with developer)

*Budgetary requirements are provided for information purposes only. Program approval does not ensure budgetary support.*

**Non-Recurring Costs**

What will be the costs? Please provide accurate estimates.

**Academic non-recurring estimated start-up costs (e.g., equipment costs/other)**

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<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
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<td>Staff – PD / enrichment</td>
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**Capital Costs (Equipment, Renovations)**

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**Totals**

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<th>Yr 4</th>
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### Proposal for New Program

#### Academic Non-Recurring Capital Costs

#### Capital Costs

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<th>No. of items</th>
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#### Totals

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#### Ongoing Costs

### Operating Costs

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<th>Item</th>
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<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
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<td>Required service courses*</td>
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<td>Administrative Support</td>
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</tr>
<tr>
<td>Advisor</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Specialized IET</td>
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</tr>
<tr>
<td>Specialized IT Support</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab operating costs - Salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab operating costs – Non-Salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing research costs</td>
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<td></td>
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</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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</tbody>
</table>

#### Grand Totals

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Summarize costs identified in Appendix XX Consultations, not including Library costs**

*Explain required service courses*

### Revenue

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Courses</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicate the specific source(s) of funding for development, both internal and external.

Indicate the specific source(s) of funding for delivery, both internal and external.

---

Signature of Dean submitting concept document  
Date
APPENDICES

1. Employment and Social Development Canada projection (COPS) Sept 2015
CAD Technician Citation

Program Content Guide

Effective Date: September 2016
Program Content Guide
CAD Technician Citation

Purpose
Graduates of this new program will have developed the drafting skills that will enable them to enter the workforce as team members in building and developer firms, architectural firms, municipal, provincial or federal offices, as well as in private industry. Graduates will work on a wide variety of new home design and construction, home renovations, and real estate development work.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
• Use drawing techniques to complete projects in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Describe concepts in orthographic projection, sectioning, and dimensioning, auxiliary view and machine detailing.
• Employ Computer Aided Drafting (CAD) skills to produce drawings from data, designs and/or specifications.
• Develop drafting and related trade knowledge.
• Demonstrate an understanding of drafting skills and conventions.
• Prepare a comprehensive professional portfolio.
• Use concepts of residential building construction and technology to plan and detail a residential building in accordance with local by-laws and the BC Building Code.

Instructional Activities, Design and Delivery Mode
This course uses project based learning strategies with presentations and laboratory work. AutoCAD software will be used. Students may be required to do some assignments at home and lab work outside of class time on both theory and individual projects.

Program Duration
Fourteen (14) weeks

Evaluation of Student Learning
Students are evaluated after each course in the program. An evaluation of the learning outcomes of each student is prepared by the instructor. Students are evaluated by theory examination and assessment of practical projects.

Credential
Students receive a CAD Technician Citation upon successful completion of the program.

Admission Requirements
• Grade 12 graduation or equivalent.
• 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 an English language assessment that includes a Canadian Language Benchmark of Listening 8, Speaking 7, Reading 8, and Writing 7 or better.

VCC CAD & BIM Technologies Department Technician Certificate student who have successfully completed Level 1 may insert into level 2 of the Citation program.
Prior Learning Assessment & Recognition (PLAR)

PLAR is available for select courses. See individual Course Outlines for details.

Recommended Characteristics of Students

- Excellent English communication skills.
- Working knowledge of Windows OS is strongly recommended.
- Good mathematical and mechanical comprehension.
- Ability to work in imperial and metric units of measurement.
- General good health, good hand-eye coordination and manual dexterity.
- Successful work habits and an ability to work well with others.
- Logical reasoning and an ability to visualize objects.
- Interest in all aspects of architecture, engineering, and general construction and related fields.

Course Credits

<table>
<thead>
<tr>
<th>Term/Level</th>
<th>Course #</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DRFT 1010</td>
<td>CAD Drafting - Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1011</td>
<td>CAD Drafting - Applied</td>
<td>3.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1255</td>
<td>Residential Plans and Framing</td>
<td>4.5</td>
</tr>
<tr>
<td>1</td>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Program Total

Credits: 14.0

This guide is intended as a general guideline only. The college reserves the right to make changes as appropriate.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRFT 1010</td>
<td>CAD Drafting - Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to the world of technical drafting and the tools, terminology and media required to create working drawings of simple and more complex shapes. Students learn and apply the techniques for accurately drawing components, and fully representing them graphically.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1011</td>
<td>CAD Drafting - Applied</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>In this course, students build on the graphical emphasis of DRFT 1010 by studying and applying the conventions of drawing annotation and complete a capstone project.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1012</td>
<td>Office and Construction Site Safety</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>In this course, the students examine the safety aspects of a career in a construction-related field, with particular reference to precautions taken on entering a working construction site, as well as precautions related to workplace harassment and violence prevention.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1013</td>
<td>Construction Mathematics</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>In this course, students will apply a wide variety of mathematical techniques with the degree of accuracy required to solve technical problems appropriate for a CAD technician.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1255</td>
<td>Residential Plans and Framing</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to architectural drafting practices for residential single family detached houses, architectural construction, building codes, and wood framing for a full residential wood framed project.</td>
<td></td>
</tr>
<tr>
<td>DRFT 1326</td>
<td>Job Search Skills</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>The student will prepare a resume and letter of application. Locating job vacancies, assessing marketable skills and interviewing skills will be covered.</td>
<td></td>
</tr>
</tbody>
</table>
Transcript of Achievement

All evaluations at completion of semesters are reported to the Student Records Department to produce a Transcript of Achievement. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

Letter Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Distinguished</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>Failing grade</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>Ceased to attend and did not complete requirements.</td>
<td>0.00</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
<td>N/A</td>
</tr>
<tr>
<td>R</td>
<td>Audit. No credit</td>
<td>N/A</td>
</tr>
<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as “F” if not fulfilled</td>
<td>N/A</td>
</tr>
<tr>
<td>IP</td>
<td>In progress</td>
<td>N/A</td>
</tr>
<tr>
<td>@</td>
<td>Non-payment of fees</td>
<td>N/A</td>
</tr>
<tr>
<td>RW</td>
<td>Required to withdraw</td>
<td>N/A</td>
</tr>
<tr>
<td>NA</td>
<td>No grade available at time of printing</td>
<td>N/A</td>
</tr>
<tr>
<td>ANC</td>
<td>Anecdotal evaluation</td>
<td>N/A</td>
</tr>
<tr>
<td>TC</td>
<td>Transfer credit</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.
2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.
3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
4. In order to be granted a certificate on completion of the program, a student must maintain a GPA equivalent to a C average. A student will not receive a certificate if they fail to maintain a C average, or if they receive an F grade in any course or courses.
Course Name: CAD Drafting - Fundamentals

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

School or Centre: School of Music, Dance and Design  Department: CAD & BIM Technologies

Course History:

<table>
<thead>
<tr>
<th>New Course</th>
<th>1st Year Post-secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Replacing course (if applicable):</td>
<td>Basic Drafting 1</td>
</tr>
<tr>
<td>Course Number:</td>
<td>DRFT 1010</td>
</tr>
<tr>
<td>Number of Credits:</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Course Pre-requisites (if applicable):

Admission to this program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No  ☑ Yes (details below):

PLAR is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty. Credits from external courses may be accepted as a transfer credit. Contact the Department Head for details.

Course Description:

This course introduces students to the world of technical drafting and the tools, terminology and media required to create working drawings of simple and more complex shapes. Students learn and apply the techniques for accurately drawing components, and fully representing them graphically.

#### Instructional Strategies:
Lectures, handouts, worksheets and project/drawing-based problems are used.

#### Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
- Create orthographic drawings employing accepted drafting techniques and projection concepts.
- Determine the views required to fully illustrate the features of a workpiece.
- Produce accurate isometric manual sketches.
- Prepare 2D drawings using CAD system.
- Apply industry terminology and drafting conventions.
- Demonstrate compression of drafting and related trade skills and knowledge.
- Use computer hardware and software necessary to the performance of tasks within the discipline.

#### Program Learning Outcomes:
This course serves the following programs:

- Architectural Technician Certificate
- Civil/Structural Technician Certificate
- Steel detailing Technician Certificate
- CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

## Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(provide a brief explanation for each component especially if value exceeds 35%):</td>
</tr>
<tr>
<td>Project</td>
<td>80</td>
<td>4 drawing projects of approximately equal value</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
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</tr>
</tbody>
</table>

**Total** 100

## Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>S - Self-paced</td>
<td>30</td>
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</tr>
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</table>

| Enter Total Hours | 120 |

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Technical sketching
- Drafting techniques
- Introduction to CAD, systems components, fundamentals and commands
- Geometric terms and constructions
- Production and organization of drawings
- Orthographic projection
- Auxiliary views
- Manage computer files and transfer data

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:
http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: CAD Drafting - Applied

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD & BIM Technologies

Course History:

<table>
<thead>
<tr>
<th>New Course</th>
<th>1st Year Post-secondary</th>
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</thead>
<tbody>
<tr>
<td>Name of Replacing Course (if applicable):</td>
<td>Basic Drafting 2</td>
</tr>
<tr>
<td>Course Number:</td>
<td>DRFT 1011</td>
</tr>
<tr>
<td>Number of Credits:</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Course Pre-requisites (if applicable):

DRFT 1010

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No  ☒ Yes (details below):

PLAR is determined by a portfolio of drawings meeting the project requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty. Credits from external courses may be accepted as a transfer credit. Contact the Department Head for details.

Course Description:

In this course, the student builds on the graphical emphasis of DRFT 1010 by studying and applying the conventions of drawing annotation and completing a capstone project.
Instructional Strategies:
Lectures, handouts, worksheets and project/drawing-based problems are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:

- Produce accurate section view drawings.
- Identify the features of a drawing object that require dimensional information
- Apply appropriate dimension conventions to drawing features
- Employ recognized labeling techniques to the drawing elements
- Develop fully annotated working drawings for the manufacture of mechanical components.

Program Learning Outcomes:
This course serves the following programs:

- Architectural Technician Certificate
- Civil/Structural Technician Certificate
- Steel Detailing Technician Certificate
- CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
**Evaluation/Grading System**

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

**Components and Weighting of the Assessment/Evaluation Plan:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>30</td>
<td>1 project</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>50</td>
<td>2 drawing tests of approximately equal value</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 100

**Learning Environment/Type**

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

**Enter Total Hours** 90

**Resource Material(s):**

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Dimensioning techniques and conventions
- Section Views
- Detail drawing capstone project

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The policies are located on the VCC web site at:

http://www.vcc.ca/about-vcc/policies/index.cfm

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

Course Outline, 22 March 2012 - http://cid.vcc.ca/p2-cd/curriccomm.html
Course Name: Office and Construction Site Safety

Department Head/Coordinator: Bruce McGarvie  
Effective Date: September 2016

School or Centre: School of Music, Dance and Design  
Department: CAD and BIM Technologies  
Year of Study: 1st Year Post-secondary

Course History:

New Course
Name of Replacing Course (if applicable):

Course Number: DRFT 1012  
Number of Credits: 1.0

Course Pre-requisites (if applicable):

Admission to this program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  
☑ No ☐ Yes (details below):

Course Description:

In this course, the students examine the safety aspects of a career in a construction-related field, with particular reference to precautions taken on entering a working construction site, as well as precautions related to workplace harassment and violence prevention.

**Instructional Strategies:**
Lecture, group research activities, instructional videos, and a job site visit will be used.

**Course Learning Outcomes:**
Upon successful completion of this course, the student will be able to;

- Cite the appropriate Codes and Standards relating to workplace safety
- Name and describe personal protective equipment and devices
- Identify potential workplace hazards
- Recognize instances of potential workplace violence and harassment

**Program Learning Outcomes:**
This course serves the following programs;

- Architectural Technician Certificate
- Civil/Structural Technician Certificate
- Steel Detailing Technician Certificate
- CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

## Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Codes and Standards</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Elevating devices and fall protection</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>Workplace hazards</td>
</tr>
</tbody>
</table>

Total 100

## Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>E - Seminar</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Field Trip</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Enter Total Hours 30

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Codes
- Safety materials
- Safety equipment
- Protective clothing
- Protective devices
- Hearing protection
- Fall protection systems
- Temporary structures and excavations
- Elevating devices
- Confined spaces
- Harassment and violence prevention in the workplace

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To find out how this course transfers, visit the BC Transfer Guide at [www.bctransferguide.ca](http://www.bctransferguide.ca).
Course Name: Construction Mathematics

Department Head/Coordinator: Bruce McGarvie

Effective Date: September 2016

School or Centre: School of Music, Dance and Design
Department: CAD & BIM Technologies

Course History: New Course
Name of Replacing Course (if applicable):
Course Number: DRFT 1013
Number of Credits: 1.0

Year of Study: 1st Year Post-secondary

Course Pre-requisites (if applicable):
Admission to this program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No ☒ Yes (details below):

PLAR is determined by an assessment test encapsulating the requirements of this course as well as a successful interview with the Drafting Department Head or one of the full-time Drafting faculty. Credits from external courses may be accepted as a transfer credit. Contact the Department Head for details.

Course Description:

In this course, students will apply a wide variety of mathematical techniques with the degree of accuracy required to solve technical problems appropriate for a CAD technician.
Instructional Strategies:
Work sheets, lectures and videos are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Assess mathematical strategies (including models, geometric representations or formulas, elementary algebraic equations, descriptive statistical methods, and mathematical reasoning) for suitability and effectiveness.
• Execute mathematical operations necessary to implement selected strategies.
• Estimate probable answers.
• Use calculators or appropriate technical instruments to perform mathematical operations accurately.
• Check for errors in numerical answers and the appropriate fit between problems and answers.

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician Certificate
• Civil/Structural Technician Certificate
• Steel detailing Technician Certificate
• CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counseling and Advising Services areas.
### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
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<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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### Learning Environment/Type

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<tbody>
<tr>
<td>L - Classroom</td>
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<tr>
<td>B - Lab (Computer, Chemistry...)</td>
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</table>

Enter Total Hours 30

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Whole numbers and decimals
- Fractions
- Ratios, proportions, and percentages
- Roots and powers
- Weights and measures
- Geometry
- Algebra
- Trigonometry
- Basic physics
- Basic statistics

VCC Education and Education Support Policies

There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC website at: http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
</tr>
</thead>
</table>

**Course Name:** Residential Plans and Framing

**Department Head/Coordinator:** Bruce McGarvie  
**Effective Date:** September 2015

<table>
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<th>School or Centre:</th>
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<td>CAD and BIM Technologies</td>
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<td></td>
<td><strong>Number of Credits:</strong> 4.5</td>
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**Course Pre-requisites (if applicable):**

Completion of all Level 1 courses.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**  
☑️ No ☑ Yes (details below):

**Course Description:**

This course introduces students to architectural drafting practices for residential single family detached houses, architectural construction, building codes, and wood framing for a full residential wood framed project.
Instructional Strategies:
Lectures, handout materials, video presentations, field trip and project/problem based learning activities are used.

Course Learning Outcomes:
Upon successful completion of this course, the student will be able to:
• Layout of an Architectural drawing
• Produce a residential architectural floor plan to accepted industry standards
• Produce a residential architectural plot or site plan to accepted industry standards
• Produce a residential architectural building section drawing to accepted industry standards
• Produce a residential architectural building elevation drawing to accepted industry standards
• Identify and apply building practices & components in the production of build code compliant drawings
• Apply correct span tables to size framing members.
• Properly use industry convention symbols used in wood-frame construction documents.
• Create floor and roof framing plans, complete with load transfers.
• Produce wood connection details using fasteners commonly used in industry.
• Apply knowledge of wood framing theory.

Program Learning Outcomes:
This course serves the following programs:

• Architectural Technician Certificate
• Civil/Structural Technician Certificate
• Steel Detailing Technician Certificate
• CAD and BIM Technician Diploma
• CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
## Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
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<td>Letter Grades</td>
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<td>Minimum of 4 problem/project-based major assignments of approximately equal value.</td>
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**Total 100**

## Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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**Enter Total Hours 135**

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics and Sequence Covered:

- Architectural drafting techniques
- Floor plans
- Plot plans
- Sections and details
- Elevations
- Construction practices and building codes
- Use of CMHC framing tables.
- Review wood framing design handbook
- Layout of floor joist, roof rafters or trusses.
- Layout of post & beam and load bearing transfers.
- Detail of beam-post connections, hangers and post bases.

VCC Education and Education Support Policies

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The policies are located on the VCC web site at: http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
Course Name: Job Search Skills

Department Head/Coordinator: Bruce McGarvie  Effective Date: September 2016

<table>
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Course Pre-requisites (if applicable):
Admission to the program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

- No ☒ Yes (details below):

Course Description:
The student will prepare a resume and letter of application. Locating job vacancies, assessing marketable skills and interviewing skills will be covered.
Instructional Strategies:

Seminar, group work, lecture are used.

Course Learning Outcomes:

Upon successful completion of this course, the student will be able to:

- Prepare a personal needs assessment
- Determine personal marketable skills
- Prepare a resume and written application, including a covering letter
- Research prospective employers
- Organize a systematic job search
- Prepare for and handle a job interview
- Expedite the interview follow-up

Program Learning Outcomes:

This course serves the following programs:

- Architectural Technician Certificate
- Civil/Structural Technician Certificate
- Steel detailing Technician Certificate
- CAD Technician Citation

Please refer to the appropriate Program Content Guide for Program Learning Outcomes. These are available at the Counselling and Advising Services areas.
Evaluation/Grading System

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Total 100

Learning Environment/Type

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<td>B - Lab (Computer, Chemistry...)</td>
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Enter Total Hours 15

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
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<th>Date Approved by Education Council:</th>
<th>Date Approved by VCC Board (if applicable):</th>
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PREPARED FOR: Education Council

ISSUE: New credential: Pre-Health Sciences Certificate

BACKGROUND:
This proposal, presented by Debbie Sargent, describes a new certificate aimed at students who wish to explore the possibilities of and prepare themselves for a possible career in the Health Sciences. The program has new and existing courses.

DISCUSSION:
The committee raised questions regarding perceived redundancy in Math admissions requirements, the nature of the guaranteed placement of certificate graduates into Health programs and requested some language changes to a Program Learning Outcome. It was noted some small corrections to the documents needed to be made. All these changes have been made.

The minimum passing grade for courses in light of the minimum GPA to graduate was also discussed (as it often is). The committee also asked about what kind of course fulfills the elective requirement. Debbie Sargent stated that any 45 hour course would fulfill the requirement. The course need not necessarily be University Transfer.

RECOMMENDATION:
Curriculum Committee recommends Education Council recommend the College Board approve the Pre-Health Sciences Certificate

Prepared by:
David Branter
Chair, Curriculum Committee
Proposal for New Program

Name of Proposed Program: __Pre-Health Sciences______________________________

Additional material may also be included as appendices. For information about submitting the completed Proposal for New Program, please contact the Centre for Instructional Development.

Curriculum development is a consultative process. Therefore, it is understood that this is a living document which will be refined as it moves through the development process.

A. Concept

Department Leader: __TBA______________________________

Faculty: ___________ TBA

Dean: ____________Debbie Sargent/David Wells

Proposal Date: ______September 2016________________________________________

If this is a joint educational offering, name of other institution (refer to Affiliation Agreement Policy C.3.10):

____NA___________________________________________________

Purpose and Context

1. Describe in detail the program’s objectives and a description of the program outcomes, including a list of the occupations or roles that graduates will be prepared for:

The Pre-Health Science program will provide students with the opportunity to explore and study subjects related to Health Science programs at Vancouver Community College and other institutions. Students will gain an appreciation of professional roles and responsibilities in the health care system, and will gain the knowledge, skills and abilities necessary to help them be successful in a health science career path that is most suited to them. The goal of the program is to prepare individuals for success in their chosen health science career program.

Graduates of this program will have the knowledge, skills and attitudes to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support interprofessional collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize basic skills that are essential for success in health sciences programs;
7. Demonstrate insight and awareness through knowledge gained from an elective course.

Graduates, upon meeting other program admission requirements, will be prepared to enter many different health sciences programs including, Nursing and Nursing related programs, Allied Health and Dental programs, Emergency response programs such as Paramedic, Technology programs such as Medical Radiography, and many other professional
Proposal for New Program

2. Explain how this program adheres to principles and priorities as indicated in the College’s strategic, educational or ministerial planning documents:

The Pre-Health Sciences program is a preparatory program that will help to prepare students to enter and be successful in the health sciences program that is most suited to them. The program should draw large numbers of students and generate extra Full Time Equivalents (FTEs) for VCC and, as such, will contribute to the financial stability of the college. It will be a high quality program taught by faculty who are specialists in their field of study. This program will help to improve the retention rates in various health sciences programs by having more students in these programs that really know and understand what they are enrolling into. This will help with financial stability of the college as well.

3. Identify how the proposed program supports VCC’s mission, core values, and strategic objectives?

This preparatory program will support student access and success in Health Sciences programs. It will provide a new pathway for students who are unsure of what program to enroll in.

4. How does this program relate to and/or support other programs at VCC?

This program fits very well with other Health programs at VCC. It will give students exposure to the requirements, knowledge, skills and attitudes required to enter health programs at VCC or elsewhere.

Program Need

5. What educational gap, if any, is this program intended to fill?

This program is intended to provide students with the relevant science, Math and English skills that will help them to make choices about health careers they may wish to pursue. It is not intended to substitute for health program pre-requisites although some credits may be transferrable and students may choose an elective that will give them credit in their health program of choice.

6. What evidence is there of student demand for the program?

Pre-Health Sciences programs have existed in Ontario since 2004-5. These programs have continued to draw greater numbers of students each year. There have been waitlists for programs in some Ontario colleges and more sections have been added to keep up with the demand. It is expected that once the greater Vancouver community knows about this program, the demand will be strong. The numbers of programs in Ontario have continued to grow and there are currently 19 Colleges in Ontario that offer Pre-Health Sciences programs.

7. What evidence is there of labour market, professional or community demand for the graduates (report results)?

Since this will be a pathway to health sciences career programs, it is difficult to express the labour market demand in this way. There is not a community demand for graduates, however, once the program becomes established, graduates may be sought after for entry into Health Sciences programs at other institutions. A discussion with the Dean of Health Sciences at BCIT confirms this belief. Graduation from the VCC Pre-Health Sciences program may be an alternative to some other admission requirements at BCIT, and/or other institutions, in the future. Since this type of program is new to Vancouver, it may take some time for high school counsellors to understand the benefits and opportunities that such a program creates.
Proposal for New Program

8. Anticipated start date of program (refer to Appendix XX):

   September 2016

Competitive Analysis

9. Which related programs are available in the lower Mainland and/or on-line: how do they compare in terms of focus, intended outcomes, length, costs and size?

   There are no Pre-Health Sciences programs in the lower mainland. The only other Pre-Health Sciences program in BC is at Thompson Rivers University (TRU). Their 8 month certificate program is more intense than the one proposed at VCC. The TRU program is comparable to VCC’s University Transfer entry requirements for BScN and Dental Hygiene programs. It includes higher level sciences and math and includes research fundamentals and Statistics. It appears to be designed for those who already know what career path they wish to proceed in.

10. Is this concept supportable and sustainable with existing and/or available resources?

   New resources will be required to support this program since it is a new program at VCC. Some Curriculum Development funding for new course development will be required. No capital resources will be required although there could be opportunity to have large section sizes for some courses if there were a greater number of larger classrooms at VCC

11. Is this a cohort, selective entry, or open access program? How will the program be rolled out if you are not using a cohort model?

   This will be a cohort program.

12. What is the expected length of program (in months/years)? What is the maximum allowable time for completion?

   This program will be 8 month long, will be offered full time and will be face-to-face and blended delivery. The maximum allowable time for completion will be 3 years.

13. How many students would you expect to enroll in each year of the program?

   The capacity will be 32 in each section. Once larger classrooms are created at VCC, the capacity could increase to 36-42 students. It is anticipated that there could be an intake each September and January pending demand.

Admission and Delivery

14. Provide a detailed list of admission requirements, including language proficiency levels and assessment scores.

   The program admission requirements will be as follows:

   - Grade 12 graduation, or equivalent
   - English 12 with a B grade or higher, or equivalent and English Language Proficiency: http://www.vcc.ca/applying/registration-services/english-language-proficiency-requirements/
   - Human Biology 12 with a C+ grade or higher, or VCC BIOL 0983 & 0993, or equivalent
   - Chemistry 11 with a C+ grade or higher, or equivalent
Proposal for New Program

15. Will the structure of the program allow for full-time, part-time, evening, weekend, on-line, mixed-mode delivery methods, or a combination of any of these? (Identify each as appropriate).

The structure of this program will be full time, offered in the daytime, and will be face to face although some courses will have blended and/or on-line activities. Sustainability of a part time program will be examined once the full time program is established.

16. Will the structure of the program allow for multiple entry and exit points? If there are multiple entry points, please specify requirements for each.

Students will enter into Semester 1 of the program and move through as a cohort into Semester 2. If a student is unsuccessful with a course in Semester 1, progression will depend on whether or not the course is a pre-requisite for courses in Semester 2. Students may be able to “insert” into any courses they have been unsuccessful with, pending the Department Head’s approval.

Student Profile

17. Who are your target students (age, gender, educational background, work experience)? Where do they come from (recent high school graduates, mature students, transfers from other institutions)? How do you plan to recruit or attract these students? Are there other characteristics applicants should have that you identify as important?

Most students entering this program will be high school graduates. Reaching out to inform high school counsellors about this new program will be critical. Sending fly sheets to the high schools will also help to draw interest. There will also be a number of students who have attempted other college or university programs and/or students who have worked in other fields who wish to discover new Health Sciences program options for themselves. Other applicants may be those on waitlists for health sciences programs. Informing those on the waitlists of this opportunity will be essential. There will likely be a number of students who have completed VCC upgrading courses and are not yet ready to move into a career program. They are likely candidates for this program as well. The student population will include all ages, all genders, and all cultures. Students must meet minimum academic requirements to get accepted to the program and those who do not meet requirements will be referred to VCC Advising. Information sessions will be conducted and there will be fliers available about the program at Info nights. Health Sciences Department Heads and faculty will be versed at discussing the Pre-Health program when questions are asked.

Characteristics that applicants should have include the following:

- A caring attitude
- Good command of English comprehension, verbal and writing skills essential.
- Ability to work in a team/group environment
- Excellent interpersonal skills
18. How will the program address the needs of under-prepared students? How will you get these students into appropriate upgrading courses or programs? What options are available?

Students who appear underprepared will be referred to the VCC Learning Centre, to Counselling, to Disability Services and/or to Advising to determine how their needs can best be met. Since it is expected that students have met minimum academic entrance requirements, they will not likely be under-prepared.

19. How will the program address equity by decreasing systemic barriers? Is this type of program traditionally or historically underrepresented in specific cohort groups? (e.g., gender and/or age imbalance, First Nations) How will the program address these issues?

The program will hold two seats for First Nations applicants. Those with disabilities will be welcome in the program. Faculty and administration will respond to perceived inequities if they arise.

Quality

20. How will the program ensure educational effectiveness (e.g., retention, progression, completion)?

The program will meet all college policies and Education Council requirements and be approved by the VCC Board of Governor’s before implementation. Students will be informed of requirements for success and be encouraged to seek assistance if success is challenged. Faculty will meet area hiring criteria and be selected through an approved process. Student feedback will be sought and recommended changes considered. An annual program review will be completed and a full program renewal will occur every 5-7 years.

21. Describe how the proposed program incorporates work experience, practicum, clinical practice, etc. (if applicable):

This program will not have any work experience, practicums or clinical experiences.

22. Does the program create opportunities for students to transfer credit and/or ladder from/to other programs?

The program has one elective course whereby students can choose a course that could be transferable into other health sciences programs upon graduation. Graduates, meeting a certain academic standard, will be given priority for entry into certain VCC health sciences programs, pending the completion of program prerequisites.

23. Will this program allow students to continue with further study? Describe laddering, bridging, or post-credential continuation of education.

This program will definitely allow students to continue with further study. Graduates will likely apply to VCC and/or other health sciences programs. Seats into several VCC Health Sciences will be held for graduates of this program who meet certain academic standards.

24. Does this program include Prior Learning Assessment and Recognition (PLAR) as per Policy ##?

The program does not include any prior learning assessment and recognition at this time as most courses are unique to the program. PLAR may be considered at a later time if there is a need and demand.
Proposal for New Program

25. Explain how current faculty members are qualified to deliver the program. If they are not, how will this issue be addressed?

The Area Hiring Criteria for all courses in this program will be established. Content experts have developed the proposed courses in this program and will likely meet the area hiring criteria and be eligible to teach in the program. It is expected that all expertise required for this program is “in-house”. External hiring is unlikely.

Consultation Overview

26. With whom have you consulted internally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of feedback (refer to Appendix XX):

Over the past year, there have been numerous meetings about this program with the following people:

- Stephen Salem, Associate Registrar (Discussed concept of the program and holding seats for students in certain programs)
- Garth Manning, CID (reviewed program description, program outcomes and other documentation and provided advise)
- Dean of CID, Karen Belfer (Karen assisted with the development of the CD proposal and also travelled to Ontario to visit several colleges offering Pre-Health programs)
- Health Sciences Department Heads (several meetings discussing the key outcomes required for students)
- College Foundations, College Career Access and Arts and Sciences faculty (helped in the development of the Anatomy, Chemistry, English, Communications and Math courses)
- The Dean of Access, David Wells (working in partnership)
- Director of Aboriginal Services, Kory Wilson (very supportive of moving this program forward – good linkage for Aboriginal students wanting to access health sciences programs)
- Institutional Research (IR), Brian Beacham (further consultation required to determine FTE calculations)
- Vice President Academic, John Woudsia and Judith McGillivray
- Library faculty, Bill Nikolai and Todd Rowlatt (to discuss the course the library is developing and determine the fit)

Further consultations are necessary with the Assessment Centre, Learning Centre, Reg Office, IR, Dean of Access, Faculty in Access and Health Sciences, and the Library

27. With whom have you consulted externally regarding this proposal? What were the results of these consultations? Please provide names, dates, and summary of discussions.

- Have had two meetings/conversations with Bill Dow, previous Dean of Health Sciences at BCIT (now VP Academic) about the possibility of graduates of the Pre-Health Sciences program being considered for entry into certain health sciences programs at BCIT. Bill will consider this once the program is underway.
- Met with VP and Chairs from JIBC together with Judith McGillivray and David Wells to discuss potential partnership opportunities and discussed the Pre-Health Sciences program as a pathway into health programs at JIBC. We also discussed the possibility of one or two JIBC courses being available to students as an elective. They will consider this.
- Met with Vancouver and Burnaby School Boards about dual credit opportunities and discussed the future possibility of dual credit with both school boards, VSB was more interested than Burnaby
- Discussed the Pre-Health program at several of the Health Sciences Program Advisory Committees and there was tremendous support for offering such a program.
Proposal for New Program

B. Business Case

Institutional Resources

1. What expertise, equipment, facilities and library resources will the program require to support student learning? Ensure that any required new resources in these areas are identified in the Costs section (I).

All required teaching expertise can be found “in-house”. Since many courses are already being delivered at VCC, no additional library resources should be required. There will be no capital requirements for equipment. No specialized space will be required however an increase in the number of larger classrooms may facilitate larger sections and could have a financial benefit

2. Outline anticipated requirements for equipment, specialized space, etc.: (classrooms, labs, shops, general space)

As above

Costs and Revenue (to be prepared by Dean/Associate Dean in consultation with developer)

Budgetary requirements are provided for information purposes only. Program approval does not ensure budgetary support.

Non-Recurring Costs

What will be the costs? Please provide accurate estimates.

Academic non-recurring estimated start-up costs (e.g., equipment costs/other)

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<th>Yr 2</th>
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<td>Curriculum development</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Faculty recruitment</td>
<td>nil</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Staff – PD / enrichment</td>
<td>N/A</td>
<td></td>
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</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
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</table>

Capital Costs (Equipment, Renovations)

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Capital requirements</td>
<td>Nil</td>
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<td><strong>Sub-total</strong></td>
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</table>
## Proposal for New Program

### Totals

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Non-Recurring</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Capital Costs</td>
<td></td>
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<td><strong>Totals</strong></td>
<td></td>
<td></td>
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</table>

### Ongoing Costs

#### Operating Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of items</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
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<tr>
<td>Required service courses*</td>
<td>A&amp;S</td>
<td></td>
<td></td>
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<tr>
<td>Administrative Support</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Advisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized IET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized IT Support</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab operating costs - Salary</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lab operating costs – Non-Salary</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ongoing research costs</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Summarize costs identified in Appendix XX Consultations, not including Library costs

*Explain required service courses*

### Revenue

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Courses</th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>TBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Proposal for New Program

Indicate the specific source(s) of funding for development, both internal and external.

CD proposals will be submitted

Indicate the specific source(s) of funding for delivery, both internal and external.

Tuition plus base grant

_____________________________________________________

November 10 2015

Signature of Dean submitting concept document   Date

Curriculum Development and Approval
Pilot Project November 2014 to June 2015
Curriculum Developer: ___Debbie Sargent________________ Title: __Dean of Health Sciences
School/Centre: __Health Sciences_________________ Department: __________________
E-mail: _dsargent@vcc.ca__________________________ Phone/Ext.: ___5028 ____________

A) DEVELOPMENT TYPE (select all that apply)

X NEW PROGRAM

Program has never been offered before at VCC or program has undergone significant
and extensive changes to its PCG and/or course outlines, where these changes impact
the nature or overall direction of a program.

□ NEW COURSE(S)

Course has never been offered before at VCC either as a standalone course or as part
of a new or existing program; or is a replacement course.
This course replaces: ______________________________________________

□ CHANGE TO A PROGRAM AND/OR COURSE

(select all that apply)

□ Program/Credential

□ Prior Learning Assessment and Recognition (PLAR)

□ Program Admission Requirements

□ Program Learning Outcomes (Indicate outcome number(s): __________)

□ Grading system (at variance with policy C.1.1 Course/Program Grading)

□ Program duration/maximum allowable time for completion

□ Program GPA requirements

□ Program/Course Credit Hours

□ Course Evaluation Plan (at variance with policy C.1.1 Course/Program Grading)

□ Course sequencing (that impacts the year the course is offered in)

□ Other: _______________________________________________________

□ MINOR REVISION TO A PROGRAM AND/OR COURSE

(select all that apply)

□ Program/Course Description

□ Program Purpose

□ Recommended Student Characteristics

□ Course Sequencing (that does not impact year the course is offered in)

□ Course Name/Number

□ Course Pre-requisite(s)/Co-requisite(s)

□ Course Learning Outcomes

□ Course Evaluation Plan (within policy C.1.1 Course/Program Grading)

□ Instructional Delivery Mode

□ Language (e.g., Typos, Spelling Errors, etc.)

□ Other: __________________________
### B) ATTACHED DOCUMENTATION

- Program Content Guide
- Course Outline(s)

All new, revised or replacement courses must be approved in advance with the Registrar’s Office.

- Course name and number: BIOL 1125 Pre-Health Sciences Biology 1
- Course name and number: MATH 1105 Applied Mathematics for Health Sciences 1
- Course name and number: ENGL 1100 University Transfer English
- Course name and number: PREH 1100 Information Systems for Health Sciences
- Course name and number: PREH 1105 Health Care System and Health Care Team
- Course name and number: PREH 1110 Information and research Fundamentals
- Course name and number: PREH 1115 Medical Terminology
- Course name and number: BIOL 1225 Pre-Health Sciences Biology 2
- Course name and number: MATH 1205 Applied Mathematics for Health Sciences 2
- Course name and number: CHEM 1230 Chemistry for Health Sciences
- Course name and number: PREH 1200 Career Planning
- Course name and number: PREH 1205 Communicating for Success
- Course name and number: PREH 1210 Interprofessional Collaboration
- Course name and number: ELECTIVE – minimum 45 hours post-secondary

### C) RATIONALE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1. | For revisions to existing courses or programs, provide an explanation of the change(s) being requested and reason(s) for making the change.  
   For new courses, provide a rationale for developing the course. |

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Are there any expected costs as a result of this proposal?</td>
</tr>
<tr>
<td></td>
<td>Yes, there will be faculty, support and operational costs. Discussions are taking place with Finance.</td>
</tr>
</tbody>
</table>
### D) CONSULTATION CHECKLIST (select all that apply) See Appendix A for consultations guidelines.

<table>
<thead>
<tr>
<th>INTERNAL CONSULTATIONS</th>
<th>FEEDBACK (include date received)</th>
</tr>
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<tbody>
<tr>
<td><strong>SCHOOLS</strong></td>
<td></td>
</tr>
<tr>
<td>Faculty/Department</td>
<td>School of Health Sciences and School of Access (several dates)</td>
</tr>
<tr>
<td>Department Support Staff</td>
<td>Numerous departments in Health and Access</td>
</tr>
<tr>
<td>Other Department(s)</td>
<td>CID</td>
</tr>
<tr>
<td><strong>EDUCATIONAL AND STUDENT SERVICES</strong></td>
<td></td>
</tr>
<tr>
<td>Aboriginal Education and Community Engagement (AECE)</td>
<td>Kory Wilson</td>
</tr>
<tr>
<td>Assessment Centre</td>
<td>Rachel Warick</td>
</tr>
<tr>
<td>Centre for Instructional Development</td>
<td>Garth Manning</td>
</tr>
<tr>
<td>Counselling &amp; Disability Services (CDS)</td>
<td>Brianna Higgins; Linda Duarte, Maija Wiik</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>Sherry Pidperyhora</td>
</tr>
<tr>
<td>Learning Centre</td>
<td>Emily Simpson</td>
</tr>
<tr>
<td>Library</td>
<td>Todd Rowlatt; Ella Fay Zalezsak</td>
</tr>
<tr>
<td>Registrar’s Office / Advising / Recruitment</td>
<td>Stephen Salem, Brian Beacham, Raymond Kaan</td>
</tr>
<tr>
<td>Related additional Student Services</td>
<td>Craig McGuigan</td>
</tr>
<tr>
<td>VCC International and Immigrant Education</td>
<td>Tina Chow</td>
</tr>
<tr>
<td><strong>FINANCIAL AND OPERATING</strong></td>
<td></td>
</tr>
<tr>
<td>Communications and Marketing</td>
<td>Karen Wilson</td>
</tr>
<tr>
<td>Facilities</td>
<td>Jerry Guspie</td>
</tr>
<tr>
<td>Finance</td>
<td>Stefan Valchev</td>
</tr>
<tr>
<td>Information Technology (IT)</td>
<td>Peter Gregorowicz</td>
</tr>
<tr>
<td>Institutional Research (IR)</td>
<td>Brian Beacham</td>
</tr>
<tr>
<td>Safety and Security</td>
<td>Surinder Aulakh</td>
</tr>
<tr>
<td><strong>EXTERNAL CONSULTATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>PAC/CEG</td>
<td>Discussed at all Health PACs</td>
</tr>
<tr>
<td>Affiliation, Articulation and/or Accreditation bodies</td>
<td>N/A</td>
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<tr>
<td>PSIPS</td>
<td>Discussion with Ministry of Advanced Education Dec 4th 2015</td>
</tr>
<tr>
<td>DQAB</td>
<td>N/A</td>
</tr>
</tbody>
</table>
E. Implementation Information

THE FOLLOWING MUST BE COMPLETED FOR NEW PROGRAMS AND NEW COURSES

COMPLETED BY REGISTRAR’S OFFICE:

1. Course Identifier:
   - Subject Code:
   - Course #:
   - Credits:
   - Effective Term:

2. College Code: ___________________ Level: ________________
   - Division Code: ___________________ Major: ________________

COMPLETED BY FINANCE:

3. Which of the following fee structure applies?
   - UT
   - Applied
   - ABE
   - Differential
   - Cost Recovery
   - IE
   - Contract

4. Finance Org Code: ___________________

5. Tuition for all courses: Domestic: _________________ International: _________________

6. College Initiative fee to be charged?  □ Yes  □ No

7. Student Society fees?  □ Yes  □ No

COMPLETED BY INSTITUTIONAL RESEARCH:

8. FTE Divisor: _________________

9. Classification Code: ________________

10. Taxonomy: _________________
E) FINAL REVIEW AND SIGN OFF

Approval verifies that each signatory has carried out the responsibilities assigned under the Curriculum Development and Approval Policy.

1. **As Department Leader I certify that:**
   a. Faculty in the department (and School, if appropriate) have been consulted and approve of the proposed changes; and
   b. All needed consultation has taken place with internal and external stakeholders, including industry and/or community partners.
   c. The curriculum meets institutional standards and the educational needs of students.

<table>
<thead>
<tr>
<th>N/A</th>
<th>Name</th>
<th>Sign off</th>
<th>Date</th>
</tr>
</thead>
</table>

2. **As Dean/Director I certify that:**
   a. Documentation meets the standards of the College, and all policies and procedures have been adhered to; and
   b. Resources required to offer and support the course/program have been assessed. If additional resources are needed, steps to secure the needed resources have been initiated.

<table>
<thead>
<tr>
<th>Debbie Sargent</th>
<th>Sign</th>
<th>Dec 7, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Sign off</td>
<td>Date</td>
</tr>
</tbody>
</table>
Curriculum Development Approval Form

*** FOR EDUCATION COUNCIL OFFICE USE ***

CURRICULUM COMMITTEE
Date: _________________________

Minor Revision

☐ Approved as presented, proceed with implementation
☐ Approved with additional minor revisions
    ☐ Revisions approved by Curriculum Committee Chair, proceed with implementation Date: ________
☐ Reclassified as a significant change

New Course or Significant Change to a Program/Course

☐ Recommend to EDCO as presented, proceed to EDCO
☐ Recommend to EDCO with additional minor revisions
    ☐ Revisions approved by Curriculum Committee Chair, proceed to EDCO Date: _______________
☐ Recommend significant changes, return to Department Leader

New Program

☐ Recommend to EDCO as presented, proceed to EDCO
☐ Recommend to EDCO with additional minor revisions
    ☐ Revisions approved by Curriculum Committee Chair, proceed to EDCO Date: _______________
☐ Recommend significant changes, return to Department Leader

EDUCATION COUNCIL
Date: _________________________

Minor Revision

☐ Received as Information
☐ Request review of documentation from Curriculum Committee
☐ Reclassified as major, return to Curriculum Committee

New Course or Significant Change to a Program/Course

☐ Approved as presented, proceed with implementation
☐ Approved with additional minor changes
    ☐ Revisions approved by Curriculum Committee Chair, proceed with implementation Date: ________
☐ Recommend significant changes, return to Department Leader

New Program

☐ Recommend to Board as presented, proceed to Board
☐ Recommend to Board with additional changes
    ☐ Revisions approved by Curriculum Committee Chair, proceed to Board Date: _______________
☐ Recommend significant changes, return to Dean

BOARD OF GOVERNORS
Date: _________________________

New Credential/Program

☐ Approved, proceed to implementation
☐ Not approved (provide reason) ____________________________________________________________
Pre-Health Sciences Certificate

Program Content Guide

Effective Date: ___September 2016___
Goal

The Pre-Health Science program will provide students with the opportunity to explore and study subjects related to Health Science programs at Vancouver Community College and other institutions. Students will gain an appreciation of professional roles and responsibilities in the health care system, and will gain the knowledge, skills and abilities necessary to help them be successful in a health science career path that is most suited to them. The goal of the program is to prepare individuals for success in their chosen health science career program.

Two seats will be held in each of Vancouver Community College’s Health Sciences program for those students who have completed the Pre-Health Sciences program and who meet that program’s admission requirements. If more than two students want admission into a particular program, the two students with the highest GPA will be selected. This will apply only in the year of program completion and not in future years.

Admission Requirements

- Grade 12 graduation, or equivalent
- English 12 with a B grade or higher, or equivalent and English Language Proficiency: [http://www.vcc.ca/applying/registration-services/english-language-proficiency-requirements/](http://www.vcc.ca/applying/registration-services/english-language-proficiency-requirements/)
- Human Biology 12 with a C+ grade or higher, or VCC BIOL 0983 & 0993, or equivalent
- Chemistry 11 with a C+ grade or higher, or equivalent
- Pre-Calculus 11 with a C grade or higher, or equivalent, or Foundations of Math 11 with a C+ grade or higher, or equivalent. If a C in Pre-calculus 11 or a C+ in Foundations of Math 11 was not achieved, applicants must write the VCC Basic Arithmetic Assessment and score 80% or higher.

Prior Learning Assessment & Recognition (PLAR)

PLAR will be considered on a course by course basis.

Program Duration

The program will be 8 months (32 weeks), full time. Students must complete the program within 3 years from the time they start.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.

**Instructional Activities, Design and Delivery Mode**

This program will be delivered full time, face-to-face with blended (face-to-face and online) learning activities. There will be lectures, group work and independent study throughout the program. Students will be required to do writing exercises, presentations and role playing in various courses.

**Evaluation of Student Learning**

Students will be evaluated using a variety of methods including, but not limited to, tests, exams, written assignments, group projects, oral presentations. Attendance and participation is expected for all classes. In order to receive the Pre-Health Sciences certificate, students must achieve at least a C- in each course and have an overall average of C or above.

**Recommended Characteristics of Students**

- A caring attitude
- Command of the English language
- Good verbal and writing skills
- Ability to work in a team/group environment
- Excellent interpersonal skills
- Self-awareness
## Courses

<table>
<thead>
<tr>
<th>Term</th>
<th>Course #</th>
<th>Course Name and Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BIOL 1125</td>
<td><strong>Pre-Health Sciences Biology 1</strong>&lt;br&gt;This course is part one of two biology courses in the Pre-Health Sciences Program at Vancouver Community College. The Biology for Health Sciences courses provides an introduction to the study of anatomy and physiology of humans. This course reviews the major themes of anatomy and physiology from Biology 12; including cellular form and function, biochemistry and metabolism, genetics and heredity, and characteristics of tissues. This course subsequently studies a number of human systems in greater depth including the integumentary system, skeletal system, muscular system, nervous system, and endocrine system. This course will describe physiological functions that contribute to health and/or disease.</td>
<td>2.5</td>
</tr>
<tr>
<td>1</td>
<td>MATH 1105</td>
<td><strong>Applied Mathematics for Health Sciences 1</strong>&lt;br&gt;The course provides the student with the basic math skills necessary to succeed in their post-secondary health care-related education. Students will renew fundamental math skills such as calculations with fractions, decimals, percent, ratio and proportion; order of operations; conversions between units and systems; manipulating algebraic equations; creating and interpreting graphs and basic statistics. Emphasis will be placed on developing critical-thinking and problem-solving skills through application problems related to health sciences.</td>
<td>2.5</td>
</tr>
<tr>
<td>1</td>
<td>ENGL 1100</td>
<td><strong>University Transfer English</strong>&lt;br&gt;This one-term composition course introduces students to different models of essay writing. It also trains students in the mechanics of writing (grammar), analysis of short prose, and research skills (including MLA documentation).</td>
<td>3.0</td>
</tr>
<tr>
<td>1</td>
<td>PREH 1100</td>
<td><strong>Information Systems for Health Sciences</strong>&lt;br&gt;This course is designed to provide students, especially those with limited computer skills, with a basic level of computer literacy required for their success in academic and professional life. The course involves the exploration of common computer terminologies and practical features of Microsoft Office, electronic mail, Internet search skills, and reference manager software. In addition, students will explore the basic concepts related to using computer technologies in the health care sector and associated ethical principles. The course will enable students to write academic and professional reports, analyze data, search</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>PREH 1105</td>
<td>Health Care System and Health Care Team</td>
<td></td>
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<tr>
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<td>---------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PREH 1105</strong></td>
<td><strong>Health Care System and Health Care Team</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course will help the student to understand the British Columbia (BC) Health Care System, the health care team, and the workplaces that health team members work in. An extensive review of the various roles and responsibilities of health care team members in the system will help the student to be able to determine a career path of interest and the requirements necessary to achieve this personal goal.</td>
<td><strong>2.5</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PREH 1110</td>
<td>Information and Research Fundamentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PREH 1110</strong></td>
<td><strong>Information and Research Fundamentals</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course will introduce students to the effective, efficient and ethical use of library resources to complete written assignments. Students will evaluate information sources to ensure appropriateness and relevance.</td>
<td><strong>1.0</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PREH 1115</td>
<td>Medical Terminology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PREH 1115</strong></td>
<td><strong>Medical Terminology</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course is designed to introduce medical terminology and provide a working knowledge of anatomy and disease processes relating to different body systems. Students become familiar with basic word structure, prefixes, suffixes, combining forms, abbreviations and terms pertaining to the body as a whole. Terms and pathological conditions relating to the digestive, urinary, male and female reproductive, endocrine, respiratory, cardiovascular, lymphatic, and musculoskeletal systems are discussed.</td>
<td><strong>2.5</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>BIOL 1225</td>
<td>Pre-Health Sciences Biology 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>BIOL 1225</strong></td>
<td><strong>Pre-Health Sciences Biology 2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course is the second of two biology courses in the Pre-Health Sciences Program at Vancouver Community College. The Biology for Health Sciences courses provide an introduction to the study of anatomy and physiology of humans. This course reviews the major themes of anatomy and physiology from Pre-Health Sciences Biology 1. This course subsequently studies a number of human systems in greater depth including the circulatory system, lymphatic system, immune system, respiratory system, digestive system, urinary system, and human growth and development. This course will describe physiological functions that contribute to health and/or disease.</td>
<td><strong>2.5</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>MATH 1205</td>
<td>Applied Mathematics for Health Sciences 2</td>
<td>A continuation of Applied Mathematics for Health Sciences 1, this course will enable students to further develop their critical thinking and problem-solving math skills through solving health care-related math problems such as dosage calculations, concentrations, dilutions, reconstitutions of solutions; working with linear equations, systems, functions and simple geometric objects with applications to everyday life problems.</td>
</tr>
<tr>
<td>2</td>
<td>CHEM 1230</td>
<td>Chemistry for Health Sciences</td>
<td>This course is designed to introduce the student to basic concepts of chemistry including safety, properties of substances, atomic structure, periodic trends, bonding, chemical reactions, the mole concept, solutions, and the gas laws.</td>
</tr>
<tr>
<td>2</td>
<td>PREH 1200</td>
<td>Career Planning</td>
<td>This course will assist the student with choosing an appropriate health sciences career that best fits their personal skill sets, attributes and goals. Students will develop an education plan to help them focus on their future.</td>
</tr>
<tr>
<td>2</td>
<td>PREH 1205</td>
<td>Communicating For Success</td>
<td>This course will focus on introductory development of effective speaking and listening skills that are required for successful interactions in health care, and in life generally. Socio-cultural competencies will form the foundation for skill development. Students will learn to convey and interpret information and will be required to demonstrate skills by doing presentations. Emphasis is on performance-based learning. Learners are audio-taped and/or filmed in health related scenarios. Performances are analyzed with feedback criteria.</td>
</tr>
<tr>
<td>2</td>
<td>PREH 1210</td>
<td>Interprofessional Collaboration</td>
<td>This course will introduce students to the concept of Interprofessional Collaboration (IPC) as it relates to quality patient care. It builds on the course Health Care System and Health Care Team from Term 1 of the Pre-Health Sciences program. Students will gain an understanding of the competency domains that provide a framework for IPC. Students will learn to recognize factors affecting IPC. Strategies to improve IPC will be discussed and role-played.</td>
</tr>
</tbody>
</table>
### Elective

Students will be able to choose from post-secondary level courses within Vancouver Community College or transfer post-secondary credits from another institution. The course must be at least 45 hours and must be from a recognized, credentialed institution.

<table>
<thead>
<tr>
<th></th>
<th>ELECTIVE</th>
<th>Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>Students will be able to choose from post-secondary level courses within Vancouver Community College or transfer post-secondary credits from another institution. The course must be at least 45 hours and must be from a recognized, credentialed institution.</td>
</tr>
</tbody>
</table>

Total Program Credits: 33.0
Transcript of Achievement

An evaluation of the learning outcomes of each student is prepared by the instructor. This evaluation is by a combination of assignments, presentations, projects, theory exams and/or practical exams.

All evaluations at completion of semesters are reported to the Student Records Department. The transcript is organized to show a letter grade for each course. The grade point equivalent for a course is obtained from the letter grades as follows:

**Letter Grades**

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Distinguished</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Minimum pass. May not proceed to next level.</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>Failing grade</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>Ceased to attend and did not complete requirements.</td>
<td>0.00</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory. In accordance with departmental evaluation procedures.</td>
<td>N/A</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
<td>N/A</td>
</tr>
<tr>
<td>R</td>
<td>Audit. No credit</td>
<td>N/A</td>
</tr>
<tr>
<td>EX</td>
<td>Exempt. Credit granted</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Contract agreement for extra time. Recorded as “F” if not fulfilled</td>
<td>N/A</td>
</tr>
<tr>
<td>IP</td>
<td>In progress</td>
<td>N/A</td>
</tr>
<tr>
<td>@</td>
<td>Non-payment of fees</td>
<td>N/A</td>
</tr>
<tr>
<td>RW</td>
<td>Required to withdraw</td>
<td>N/A</td>
</tr>
<tr>
<td>NA</td>
<td>No grade available at time of printing</td>
<td>N/A</td>
</tr>
<tr>
<td>ANC</td>
<td>Anecdotal evaluation</td>
<td>N/A</td>
</tr>
<tr>
<td>TC</td>
<td>Transfer credit</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Grade Point Average (GPA)**

1. The course grade points shall be calculated as the product of the course credit value and the grade value.

2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.

3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.
VCC Education and Education Support Policies

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This document is not to be copied or transmitted in any form without the consent of VCC ©
**Course Name:** Pre-Health Sciences Biology 1

**Course Number:** BIOL 1125  
**Number of Credits:** 2.5  
**Effective Date:** Sep 6, 2016

**Course Description:**
This course is part one of two biology courses in the Pre-Health Sciences Program. It provides an introduction to the study of anatomy and physiology of humans and reviews the major themes of anatomy and physiology from Biology 12; including cellular form and function, biochemistry and metabolism, genetics and heredity, and characteristics of tissues. This course subsequently studies a number of human systems in greater depth including the integumentary system, skeletal system, muscular system, nervous system, and endocrine system. This course will describe physiological functions that contribute to health and/or disease.

Pre-Health Sciences Biology 1 and 2 combine to give the equivalent of NURS 1602 plus additional material.

**School or Centre:**  
Arts and Science

**Year of Study:**  
1st Year Post-secondary

**Course History:**  
New Course

**Course Pre-requisites (if applicable):**
Admission to the Pre-Health Sciences Program

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
☐ No  ☒ Yes (details below):

Challenge exam or other methods of assessment may be possible
Instructional Strategies:
This course primarily uses lecture-based instruction. Classes will also utilize some combination of discussions, case studies, animations and videos, clicker questions, on-line assignments and resources, and group work.

Course Learning Outcomes:
Upon successful completion of this course students will be able to:

1. Comprehend and appropriately use anatomical terminology.
2. Identify and locate organs responsible to specific functions.
3. Describe the structure, and explain the relationship between structure and function in each organ system.
4. Describe physiological processes that occur in each organ system.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.
### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>35%</td>
<td>Unit-based; Approximately 5 quizzes</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>25%</td>
<td>Cumulative; 1</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>Cumulative; 1</td>
</tr>
<tr>
<td>Assignments</td>
<td>10%</td>
<td>Assignments and Learning Activities</td>
</tr>
</tbody>
</table>

Total 100%

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
### Course Topics:

<table>
<thead>
<tr>
<th>General overview of human anatomy and physiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and metabolism</td>
</tr>
<tr>
<td>Cell structure and function</td>
</tr>
<tr>
<td>Characteristics of tissues</td>
</tr>
<tr>
<td>The integumentary system</td>
</tr>
<tr>
<td>The skeletal system</td>
</tr>
<tr>
<td>The muscular system</td>
</tr>
<tr>
<td>The nervous system</td>
</tr>
<tr>
<td>The endocrine system</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>FOR COMMITTEE USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved by Curriculum Committee:</td>
</tr>
</tbody>
</table>
**Course Name:** Pre-Health Sciences Biology 2  
**Course Number:** BIOL 1225  
**Number of Credits:** 2.5  
**Effective Date:** Jan 2, 2017

**Course Description:**
This course is the second of two biology courses in the Pre-Health Sciences Program. It provides an introduction to the study of anatomy and physiology of humans and reviews the major themes of anatomy and physiology from Pre-Health Sciences Biology 1. This course subsequently studies a number of human systems in greater depth including the circulatory system, lymphatic system, immune system, respiratory system, digestive system, urinary system, and human growth and development. This course will describe physiological functions that contribute to health and/or disease.

Pre-Health Sciences Biology 1 and 2 combine to give the equivalent of NURS 1602 plus additional material.

<table>
<thead>
<tr>
<th>School or Centre</th>
<th>Year of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts and Science</td>
<td>1st Year Post-secondary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course History</th>
<th>Name of Replacing Course (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Course</td>
<td></td>
</tr>
</tbody>
</table>

**Course Pre-requisites (if applicable):**
Pre-Health Sciences Biology 1 with at least a C-

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**
- No
- Yes (details below):

Challenge exam or other method of assessment may be possible
**Instructional Strategies:**
This course primarily uses lecture-based instruction. Classes will also utilize some combination of discussions, case studies, animations and videos, clicker questions, on-line assignments and resources, and group work.

**Course Learning Outcomes:**
Upon successful completion of this course students will be able to:

1. Comprehend and appropriately use anatomical terminology.
2. Identify and locate organs responsible to specific functions.
3. Describe the structure, and explain the relationship between structure and function in each organ system.
4. Describe physiological processes that occur in each organ system.

**Program Learning Outcomes:**
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.
Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>35</td>
<td>Unit-based; Approximately 5 quizzes</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>25</td>
<td>Cumulative; 1</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30</td>
<td>Cumulative; 1</td>
</tr>
<tr>
<td>Assignments</td>
<td>10</td>
<td>Assignments and Learning Activities</td>
</tr>
</tbody>
</table>

Total 100

Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Review of the major themes from Pre-Health Sciences Biology 1
The cardiovascular system
The lymphatic system
The immune system
The respiratory system
The digestive system
The urinary system
The reproductive system
Pregnancy and human development

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http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.
**Course Name:** Chemistry for Health Sciences

**Course Number:** CHEM 1230  
**Number of Credits:** 2.5  
**Effective Date:** Jan 2, 2017

**Course Description:**
This course is designed to introduce the student to basic concepts of chemistry including safety, properties of substances, atomic structure, periodic trends, bonding, chemical reactions, the mole concept, solutions, and the gas laws.

**School or Centre:** Arts and Science

**Year of Study:** 1st Year Post-secondary

**Course History:** New Course

**Course Pre-requisites (if applicable):**
Admission to the Pre-Health Science Program

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**  
- No  
- Yes (details below):
Instructional Strategies:
Chemistry for Health Sciences uses a lecture based model. A significant amount of class time will be used for hands-on activities, group work, concept-development and problem solving.

Course Learning Outcomes:
Upon successful completion of the course students will be able to:

1. Obtain the prerequisite body of knowledge and skills that will provide a basis for further career training in VCC Health Sciences programs.
2. Demonstrate an awareness of chemistry in everyday life with an emphasis on chemistry in the health sciences.
3. Communicate effectively using the language of chemistry.
4. Work effectively in a team.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
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### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

#### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>20</td>
<td>Group project</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>10</td>
<td>3 quizzes</td>
</tr>
<tr>
<td>Exam</td>
<td>70</td>
<td>4 exams</td>
</tr>
</tbody>
</table>

Total 100%

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Safety
Properties of Substances
Atomic Structure
Periodic Trends
Bonding
Chemical Reactions
The Mole Concept
Solutions
Gas Laws

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**FOR COMMITTEE USE ONLY**

| Approved by Curriculum Committee: | Approved by Education Council: |
Course Name: University Transfer English 1

Course Number: ENGL 1100  
Number of Credits: 3.0  
Effective Date: January 2016

Course Description:
This one-term composition course introduces students to different models of essay writing. It also trains students in the mechanics of writing (grammar), analysis of short prose, and research skills (including MLA documentation).

School or Centre: School of Access

Year of Study: 1st Year Post-secondary

Course History:
Revised Course

Course Pre-requisites (if applicable):
English 12 with a final grade of C+ *and* ENSK 0902 with a final grade of B, or English 12 with a final percentage of 76% or English 12 Provincial exam score of 72% or English 0981/0991 with a final grade of B+ or ONE of the following test scores: LPI 5/35; LET 4; ABE assessment with 60 in reading, 52 in writing, and 0991 on essay

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

☐ No  ☐ Yes (details below):
### Instructional Strategies:
The course uses a combination of lectures, multimedia presentations, group work, class discussion, and library research.

### Course Learning Outcomes:
Upon successful completion of this course, students will be able to
- Use MLA to document sources
- Format writing for academic purposes/audiences
- Compose and revise different types of essays (comparative, literary analysis, etc.)
- Analyze and discuss readings
- Use literary terminology appropriate to context
- Apply rhetorical strategies in their own writing
- Demonstrate critical engagement with various texts
- Analyze genres and generic structures/characteristics
- Produce structured essays
- Apply the rules of grammar and mechanics to prose composition
- Proofread/edit for mechanical and structural errors
- Conduct research and communicate findings
- Accurately summarize ideas, organization, and tone of original texts
- Apply the conventions of academic writing

### Program Learning Outcomes:
If this course is taken as a requirement or an elective in the following first-year University Transfer certificate programs, the learning outcomes are found in the Program Content Guides available at the Counselling and Advising service areas.

- University Transfer Arts Certificate
- University Transfer Pathway to Health Sciences Certificate
- University Transfer Science Certificate
- University Transfer Engineering Certificate
- University Transfer Computing Science and Software Systems Certificate
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>C-</td>
</tr>
</tbody>
</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>20</td>
<td>Grammar test, summary</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>In-class essays</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>Literary analysis essay</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>Research essay and MLA documentation</td>
</tr>
<tr>
<td>Final Exam</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
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### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>60</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

- Understanding audiences: conventions of academic writing
- Grammar
- Critical reading, annotation, summary, evaluation
- Research and documentation skills
- Comparative analysis
- Literary analysis: terminology, literary genres/subgenres (short story unit)

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<tbody>
<tr>
<td>Approved by Curriculum Committee:</td>
</tr>
<tr>
<td>Approved by Education Council:</td>
</tr>
</tbody>
</table>
Course Name: Applied Mathematics for Health Sciences 1

Course Number: MATH 1105  Number of Credits: 2.5  Effective Date: Sep 6, 2016

Course Description:
The course provides the student with the basic math skills necessary to succeed in their post-secondary health care-related education. Students will renew fundamental math skills such as calculations with fractions, decimals, percent, ratio and proportion; order of operations; conversions between units and systems; manipulating algebraic equations; creating and interpreting graphs and basic statistics. Emphasis will be placed on developing critical-thinking and problem-solving skills through application problems related to health sciences.

School or Centre: Arts and Sciences

Year of Study: 1st Year Post-secondary

Course History: New Course

Course Pre-requisites (if applicable):
Admission to the Pre-Health Sciences Program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

Yes (details below):
Challenge exam or other method of assessment may be possible.
Instructional Strategies:
The course uses a combination of lectures, demonstrations, group work, class discussion and software demonstrations.

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Perform arithmetic operations including addition, subtraction, multiplication and division on integer and rational numbers, and convert numbers between fractions and decimals without a calculator.
2. Use order of operations to simplify expressions, perform rounding and express numbers in scientific notation.
3. Compare ratios, identify proportions, calculate percentages and use ratios, proportions and percentages to solve problems.
4. Graphically present and interpret data in the form of frequency tables, line graphs and bar graphs.
5. Calculate and demonstrate an understanding of the measures of Central Tendency, percentiles, standard deviation, the normal curve, and z-scores.
6. Convert between and within metric and Imperial measurement systems.
7. Solve measurement problems involving both metric and Imperial units of length, temperature, time, area, volume and mass.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>40</td>
<td>Four tests worth 10% each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30</td>
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</table>

**Total**: 100

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

**Total**: 48

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:


Measurement Systems and Conversion Procedures: Basic Dimensional Analysis, Conversions within the Metric System, Conversions between Systems.

Charts, Tables and Graphs: Collecting Data, Organizing Data Using Frequency Distribution Tables, Reading and Interpreting Tables and Charts, Constructing Charts and Graphs from Tables.

Introductory Statistics

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FOR COMMITTEE USE ONLY

Approved by Curriculum Committee:  

Approved by Education Council:  

VCC-CD-20150901
<table>
<thead>
<tr>
<th><strong>Course Name:</strong></th>
<th>Applied Mathematics for Health Sciences 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Number:</strong></td>
<td>MATH 1205</td>
</tr>
</tbody>
</table>

**Course Description:**
A continuation of Applied Mathematics for Health Sciences 1, this course will enable students to further develop their critical thinking and problem-solving math skills through solving health care-related math problems such as dosage calculations, concentrations, dilutions, reconstitutions of solutions; working with linear equations, systems, functions and simple geometric objects with applications to everyday life problems.

<table>
<thead>
<tr>
<th><strong>School or Centre:</strong></th>
<th>Arts and Science</th>
</tr>
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<tbody>
<tr>
<td><strong>Year of Study:</strong></td>
<td>1st Year Post-secondary</td>
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</table>

**Course History:**
New Course

**Course Pre-requisites (if applicable):**
Applied Mathematics for Health Sciences 1 with at least a C-

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**
- [ ] No  - [x] Yes (details below):
  Challenge exam or other method of assessment may be possible
Instructional Strategies:
The course uses a combination of lectures, demonstrations, group work, class discussion and software demonstrations.

Course Learning Outcomes:
Upon successful completion students will be able to:

1. Calculate the concentrations and volumes of solutions in dilution and reconstitution problems.
2. Determine the correct dosage of a drug, based on the drug order, the drug label, the patient’s weight or Body Surface Area (BSA).
3. Calculate flow rates given drug amount, time, and drop rate.
4. Solve first degree linear equations in one variable, and solve simple formulas for one variable.
5. Solve systems of linear equations by graphing, substitution and elimination methods, and solve application problems.
6. Perform polynomial operations and factorization and solve applied problems using polynomial equations and functions.
7. Solve application problems using side length, angles, perimeter, area and volume of simple 2- and 3-dimensional shapes and solids.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
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Total 100

## Learning Environment/Type

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</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Dilutions, Solutions and Concentrations
Dilutions, Concentrations, Concentrations and Volumes of Two Solutions, Percent Solutions.

Drug Dosages and IV Calculations
Reading and Interpreting Drug Orders and Drug Labels, Dosage Calculations Formulas, Proportions and Dimensional Analysis, Parenteral Dosage Calculations, Reconstitution of Solutions, Intravenous Flow Rates, Titration of Intravenous Medications, Dosages Based on Weight, Dosages Based on Body Surface Area.

Linear Equations, Graphing & Variation
The Coordinate Plane, Slope and Rate of Change, Graphing Linear Equations Using the Slope, Graphing Linear Equations Using Tables, Interpreting Linear and Nonlinear Graphs, Direct and Inverse Variation.

Geometry
Angles and Lines, Geometric Figures, Understanding Area and Volume, Surface Area, Density.

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FOR COMMITTEE USE ONLY

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</table>
Course Name: Information Systems for Health Sciences

Course Number: PREH 1100  Number of Credits: 2.5  Effective Date: Sep 6, 2016

Course Description:
This course is designed to provide students, especially those with limited computer skills, with a basic level of computer literacy required for their success in academic and professional life. The course involves the exploration of common computer terminologies and practical features of Microsoft Office, electronic mail, internet search skills, and reference manager software. In addition, students will explore the basic concepts related to using computer technologies in the health care sector and associated ethical principles. The course will enable students to write academic and professional reports, analyze data, search scientific evidence, organize scientific references, prepare presentations, and explore the basics of electric health records. This is significant to provide hands-on computer experience for students and facilitate their success in today’s work place. Students will also be introduced to an online learning platform that will enhance their ability to communicate.

School or Centre: Health Sciences
Year of Study: 1st Year Post-secondary

Course History:
New Course

Course Pre-requisites (if applicable):
Admission to the Pre-Health Sciences program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  No ✓ Yes (details below):
Challenge exam or other methods of assessment may be possible
Instructional Strategies:

1- Online Lesson using Moodle (lecture)
2- Computer laboratory to follow hands on instructions and provide more practice.
3- Online discussion using Wiki activity on Moodle.

Course Learning Outcomes:

Upon successful completion of this course the students will be able to:

1. Explore the common computer concepts using terminologies available in computer references and software manuals;
2. Demonstrate the ability to use Microsoft Products including Word, Excel, PowerPoint, OneNote, and reference manager. This includes knowing the operation of common menu items and exploring available help systems and resources;
3. Create professional-looking and appropriately referenced academic documents, spreadsheets, and presentations expected from students at a college level;
4. Provides a hands-on experience on using the electronic email and Internet search to retrieve scientific data;
5. Introduce the use of computers in health care environment including electronic health records, electronic charting, and pharmacy and laboratory systems.

Program Learning Outcomes:

Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
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<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>20</td>
<td>3 short Online quizzes during the course.</td>
</tr>
<tr>
<td>Project</td>
<td>35</td>
<td>Project demonstrating the skills learned during the course.</td>
</tr>
<tr>
<td>Final Exam</td>
<td>35</td>
<td>Online exam</td>
</tr>
<tr>
<td>Participation</td>
<td>10</td>
<td>The participation marks will be assigned for Online discussion activities using Wiki activity on Moodle.</td>
</tr>
</tbody>
</table>

**Total** 100

### Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 48

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Common computer terminologies.
Moodle
Microsoft Word and word processing
Excel Spreadsheets and Formulas
PowerPoint Presentations
OneNote
Electronic mail
Internet Search
Reference manager applications.
Electric Health Records

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved by Education Council:</td>
<td></td>
</tr>
</tbody>
</table>
**Course Name:** Heath Care System and Health Care Team

**Course Number:** PREH 1105  
**Number of Credits:** 2.5  
**Effective Date:** Sep 6, 2016

**Course Description:**
This course will help the student to understand the British Columbia (BC) Health Care System, the health care team, and the workplaces that health team members work in. An extensive review of the various roles and responsibilities of health care team members in the system will help the student to be able to determine a career path of interest and the requirements necessary to achieve this personal goal.

<table>
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</tbody>
</table>

**Course History:**
New Course

**Course Pre-requisites (if applicable):**
Admission to the Pre-Health Sciences program

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**
☒ No ☐ Yes (details below):
Instructional Strategies:
Instructional methods will include lecture, group work, individual research, presentation and online activities. Guest speakers may be invited and full attendance and participation will be expected.

Course Learning Outcomes:
Upon successful completion of this course students will be able to;

1. Describe what a health care system is and who the health care team members are within this system;
2. Identify the different health care workplace environments in BC such as clinics, community agencies, labs, hospitals, outreach and private practice;
3. Discuss the concept of Universal Health Care and outline the World Health Organization’s position on Universal Health Care;
4. Outline the British Columbia (BC) Ministry of Health’s health care priorities;
5. Differentiate between the various health care worker roles in the health care workplaces;
6. Explain at least 10 health care roles and their responsibilities in the health care system, as well as the educational requirements required to become credentialed in these roles;
7. Identify a personal health career path and set an action plan to become credentialed in this career.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
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<th>Specify Passing Grade:</th>
</tr>
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<tbody>
<tr>
<td>Letter Grades</td>
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<td>D</td>
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</table>

### Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):</th>
</tr>
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<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>20%</td>
<td>Mid term test</td>
</tr>
<tr>
<td>Assignments</td>
<td>20%</td>
<td>The Health Care Team</td>
</tr>
<tr>
<td>Other</td>
<td>15%</td>
<td>Team work/Presentation</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>20%</td>
<td>Four quizzes</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
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</table>

Total 100%

## Learning Environment/Type

<table>
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<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:
The Health Care System
BC Ministry of Health priorities
Universal Health Care
World Health Organization
Health Care environments
Health Team member roles and responsibilities

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FOR COMMITTEE USE ONLY

Approved by Curriculum Committee:                              Approved by Education Council:
<table>
<thead>
<tr>
<th>Course Name:</th>
<th>Information and Research Fundamentals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number:</td>
<td>PREH 1110</td>
</tr>
<tr>
<td>Number of Credits:</td>
<td>1.0</td>
</tr>
<tr>
<td>Effective Date:</td>
<td>Sep 6, 2016</td>
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**Course Description:**
This course will introduce students to the effective, efficient and ethical use of library resources to complete written assignments. Students will evaluate information sources to ensure appropriateness and relevance.

<table>
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</tr>
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<tbody>
<tr>
<td>Year of Study:</td>
<td>1st Year Post-secondary</td>
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<tr>
<td>Course History:</td>
<td>New Course</td>
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</table>

**Course Pre-requisites (if applicable):**
Admission to the Pre-Health Sciences Program

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition):**
[ ] No  [ ] Yes (details below):
Instructional Strategies:
Instructional methods will include lecture, group work, individual research, presentation and online activities.

Course Learning Outcomes:
Upon successful completion of this course students will be able to:

1. Understand how information is created, disseminated and accessed and that context matters;
2. Plan and complete information seeking tasks that will enhance their ability to complete assignments;
3. Evaluate information sources to determine suitability;
4. Apply advanced search strategies for a variety of academic purposes;
5. Use, manage, organize, document and communicate information ethically;
6. Contribute meaningfully and appropriately to online academic discussions.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
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<td></td>
<td>D</td>
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### Components and Weighting of the Assessment/Evaluation Plan:

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</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>25</td>
<td>3-5 quizzes</td>
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<tr>
<td>Assignments</td>
<td>30</td>
<td>2-3 assignments</td>
</tr>
<tr>
<td>Participation</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td>30</td>
<td>This could include an oral presentation</td>
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Total: 100

### Learning Environment/Type

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<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Total: 20

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
## Course Topics:

- Research process and skills
- Web and Library catalogue searches
- Citation style rules for ethical information use
- Reflection and discussion
- Information formats such as scholarly, popular, social media
- Advanced search strategies

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### FOR COMMITTEE USE ONLY

| Approved by Curriculum Committee: | Approved by Education Council: |
Course Name: Medical Terminology

Course Number: PREH 1115  Number of Credits: 2.5  Effective Date: Sep 6, 2016

Course Description:
This course is designed to introduce medical terminology and provide a working knowledge of anatomy and disease processes relating to different body systems. Students become familiar with basic word structure, prefixes, suffixes, combining forms, abbreviations and terms pertaining to the body as a whole. Terms and pathological conditions relating to the digestive, urinary, male and female reproductive, endocrine, respiratory, cardiovascular, lymphatic, and musculoskeletal systems are discussed.

School or Centre: Health Sciences

Year of Study: 1st Year Post-secondary

Course History: New Course

Course Pre-requisites (if applicable):
Admission to the Pre-Health Sciences Program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  □ No  ☑ Yes (details below):
Instructional Strategies:
Instructional methods will include lecture, group work, independent work, online activities.

Course Learning Outcomes:
Upon successful completion of this course students will be able to:

1. Explain word analysis.
2. Describe, spell and pronounce combining forms, suffixes and prefixes.
3. Define, spell and pronounce terms pertaining to the whole body.
4. Identify, spell and define terms relating to the structural organization of the body.
5. Identify the location and spell the names of the organs within each of the body systems.
6. Define and spell the terms and pathological conditions relating to each body system.

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
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<tbody>
<tr>
<td>Other</td>
<td>20</td>
<td>10 spelling quizzes worth 2% each</td>
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<tr>
<td>Exam</td>
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<td></td>
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<tr>
<td>Midterm Exam</td>
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</tr>
<tr>
<td>Final Exam</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td>5</td>
<td>Small group presentation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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</table>

## Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>32</td>
<td>lecture and computer activities</td>
</tr>
<tr>
<td>E - Seminar</td>
<td>16</td>
<td>small group discussion and exercises</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td></td>
</tr>
</tbody>
</table>

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

1. Basic word structure
2. Combining forms, suffixes and prefixes
3. Terms pertain to the body as a whole
4. Digestive system
5. Urinary system
6. Female and male reproductive systems
7. Endocrine system
8. Nervous system
9. Respiratory system
10. Cardiovascular and lymphatic systems
11. Musculoskeletal system

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| Approved by Curriculum Committee: | Approved by Education Council: |
Course Name: Career Planning

Course Number: PREH 1200
Number of Credits: 1.0
Effective Date: January 2017

Course Description:
This course will assist the student with choosing an appropriate health sciences career that best fits their personal skill sets, attributes and goals. Students will develop an education plan to help them focus on their future

School or Centre: Health Sciences
Year of Study: 1st Year Post-secondary

Course History:
New Course

Course Pre-requisites (if applicable):
PREH 1105

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)
☒ No ☐ Yes (details below):
Instructional Strategies:
Instructional methods will include lectures, research, individual and group work as well as student presentations

Course Learning Outcomes:
Upon successful completion of this course, students will be able to:

1. Identify individual strengths through the use of a Strengths Assessment tool or other measure
2. Outline personal attributes
3. Establish a career path appropriate to individual strengths and attributes
4. Outline the educational pathways required to achieve success in a chosen career path
5. Define the skills required for success

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.
### Evaluation/Grading System

<table>
<thead>
<tr>
<th>Grading System</th>
<th>Specify if 'Other':</th>
<th>Specify Passing Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
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</table>

**Components and Weighting of the Assessment/Evaluation Plan:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>50</td>
<td>2 components of a career plan worth 25% each</td>
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<tr>
<td>Other</td>
<td>20</td>
<td>Presentation</td>
</tr>
<tr>
<td>Assignments</td>
<td>30</td>
<td>Education and Career Plan</td>
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</table>

**Total** 100

### Learning Environment/Type

<table>
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<tr>
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<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 20

### Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
- Career Plan
- Education Plan
- Study skills
- Skills for success

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<tr>
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</thead>
</table>

VCC-CO-20150901
Course Name: Communicating for Success

Course Number: PREH 1205
Number of Credits: 2.5
Effective Date: Jan 2, 2017

Course Description:
This course will focus on introductory development of effective speaking and listening skills that are required for successful interactions in health care, and in life generally. Socio-cultural competencies will form the foundation for skill development. Students will learn to convey and interpret information and will be required to demonstrate skills by doing presentations. Emphasis is on performance-based learning. Learners are audio-taped and/or filmed in health related scenarios. Performances are analyzed with feedback criteria.

School or Centre: Health Sciences
Year of Study: 1st Year Post-secondary

Course History:
New Course

Course Pre-requisites (if applicable):
Admission to the Pre-Health Sciences program

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)
☑ No ☐ Yes (details below):
**Instructional Strategies:**
Case studies (comparison of models of communication techniques); individual work; group work; role playing, filming of learners for feedback of performance; audio and computer labs for listening work and learner-recording; lecture

**Course Learning Outcomes:**
Upon successful completion of this course, students will be able to:

1. Select and apply culturally appropriate Socio-cultural Competencies to healthcare/interpersonal communication using a variety of strategies (e.g., summarizing, paraphrasing, acknowledging and clarifying).
2. Participate in healthcare related group discussions and give healthcare related oral presentations.
3. Receive, interpret and orally respond accurately to healthcare information.
4. Apply critical thinking and problem solving skills to healthcare scenarios.
5. Give accurate instructions and recommendations on healthcare topics.
6. Select and apply situationally appropriate tone, register and vocabulary (e.g., lay person and professional).
7. Synthesize healthcare related information from multiple sources and orally communicate information in a timely and accurate manner.

**Program Learning Outcomes:**
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
4. Interact with others in groups and teams in ways that contribute to effective working relationships and support Interprofessional Collaboration;
5. Communicate clearly and concisely in the written and spoken form in relation to health studies;
6. Utilize problem solving and critical thinking skills that are essential for success in health sciences programs;
7. Acquire depth and breadth of knowledge through the exploration of multiple health sciences courses and an elective course.
## Evaluation/Grading System

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

## Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>20</td>
<td>Audio/filmed interactions, speaking component</td>
</tr>
<tr>
<td>Assignments</td>
<td>20</td>
<td>Contact assignments, oral reports</td>
</tr>
<tr>
<td>Quizzes/Tests</td>
<td>40</td>
<td>Four speaking and listening tasks 10% each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Total 100%

### Learning Environment/Type

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<tr>
<th>Instruction Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>L - Classroom</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>16</td>
<td>audio and computer lab</td>
</tr>
</tbody>
</table>

Total 48

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
- Active listening and active speaking;
- Socio-cultural Competencies
- Clarifying and interrupting;
- Identifying and using discourse markers;
- Reporting skills.
- Presentation skills.

All topics are integrated, rather than following a sequence.

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VCC-CO-20150901
Course Name: Interprofessional Collaboration

Course Number: PREH 1210  
Number of Credits: 2.5  
Effective Date: Jan 2, 2017

Course Description:
This course will introduce students to the concept of Interprofessional Collaboration (IPC) as it relates to quality patient care. It builds on the course Health Care System and Health Care Team from Term 1 of the Pre-Health Sciences program. Students will gain an understanding of the competency domains that provide a framework for IPC. Students will learn to recognize factors affecting IPC. Strategies to improve IPC will be discussed and role-played.

School or Centre: Health Sciences

Year of Study: 1st Year Post-secondary

Course History: New Course

Course Pre-requisites (if applicable):
PREH 1105 Health Care System and Health Care Team with at least a C-

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  ☒ No  ☐ Yes (details below):
Instructional Strategies:
Instructional methods will include lecture, group work, individual research, simulation, role playing, presentation and online activities. Attendance and Participation in simulation and role-playing activities are required for success.

Course Learning Outcomes:
Upon successful completion of this course students will be able:

1. Define Interprofessional Collaboration;
2. Outline the six competency domains of the Interprofessional Collaboration Competency Framework as outlined by the Canadian Interprofessional Health Collaborative;
3. Discuss the factors affecting Interprofessional Collaboration;
4. Using concepts learned in Term 1 of the Pre-Health Sciences program, describe how various members of the health care team can improve the health care system through Interprofessional Collaboration;
5. Outline and demonstrate effective strategies to help break down barriers affecting Interprofessional Collaboration

Program Learning Outcomes:
Upon successful completion of this program, students will be able to:

1. Confidently choose a Health Sciences career path appropriate to their interests;
2. Use computers and other technological tools to perform related tasks;
3. Discuss and apply a variety of Math, Biology, and Chemistry concepts as they relate to health care;
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<tr>
<td>Letter Grades</td>
<td></td>
<td>D</td>
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Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes/Tests</td>
<td>20</td>
<td>Mid term test</td>
</tr>
<tr>
<td>Assignments</td>
<td>35</td>
<td>Interprofessional Collaboration</td>
</tr>
<tr>
<td>Lab Work</td>
<td>20</td>
<td>Simulation/scenario exercises</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Total 100

Learning Environment/Type

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>J - Classroom/Online (Mixed Mode)</td>
<td>32</td>
<td>Lab activities will be in a simulation environment</td>
</tr>
<tr>
<td>B - Lab (Computer, Chemistry...)</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Total 48

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:

Interprofessional Collaboration
Canadian Interprofessional Health Collaborative (CIHR)
National Interprofessional Competency Framework
Interprofessional communication
Patient/client/family/community-centred care
Role clarification
Team functioning
Collaborative leadership
Interprofessional conflict resolution

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