



# THOMPSON RIVERS UNIVERSITY

February 18, 2019

Dear Carol,

Enclosed you will find the final draft of our Articulation Agreement, reading for signing. Once you have signed the agreement, please take a copy for your records and mail the original back to me.

If you have any questions, please feel free to contact me.

Best Regards,

A handwritten signature in black ink, appearing to read "Alison Dunn".

Alison Dunn  
Interim Manager, Partner Relations  
Strategic Partnerships, Open Learning  
805 TRU Way  
Kamloops, BC V2C 0C8  
250-852-6852  
[adunn@tru.ca](mailto:adunn@tru.ca)

*Kristine,  
Original sent  
back to TRU in  
Feb 27<sup>th</sup>'s mail  
Karen*



COPY



**THOMPSON RIVERS UNIVERSITY**

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**ARTICULATION AGREEMENT**

BETWEEN:

**THOMPSON RIVERS UNIVERSITY**

a corporation continued under the *Thompson Rivers University Act* of British Columbia  
("TRU")

- and -

**Vancouver Island University**

a corporation continued under the *University Act*  
("VIU")

**A BACKGROUND**

- A.1 TRU is a fully accredited and degree granting public university operating in Kamloops, B.C.
- A.2 TRU offers its students, and is empowered to grant degrees to the graduates of, the **Bachelor of Engineering in Software Engineering** program (the "TRU Program").
- A.3 VIU is a public university that enrolls approximately 8500 FTE students per year in a variety of academic and trades programs. VIU has four campuses through the mid-Island region and B.C. mainland coast including the main Nanaimo campus and satellite campuses at Parksville, Cowichan, and Power River.
- A.4 VIU offers its students a **Fundamental of Engineering Certificate** program (the "VIU Program") as set out in Schedule A of this Agreement.
- A.5 VIU confirms that the VIU Program meets all relevant National and/or Provincial professional standards. VIU also acknowledges and agrees that VIU has current and documented approval from Provincial or National regulatory bodies.

**B OBJECTIVES**



The objectives of this articulation agreement (the "Agreement") include, but are not limited to, the:

- B.1 Establishment of criteria to determine eligibility of graduates of the VIU Program to enrol in the TRU Program;
- B.2 Determination of the amount of transfer credit to be awarded to graduates of the VIU Program toward the requirements of the TRU Program should they enrol in the TRU Program;
- B.3 Identification of special negotiated terms, if any, applicable to graduates of the VIU Program enrolling in the TRU Program concerning specific program requirements, fees or services;
- B.4 Establishment of a basis for use of certain trademarks of TRU and VIU pursuant to this Agreement; and the
- B.5 Establishment of processes to encourage, review and expand, as appropriate, this Agreement.

## **C AGREEMENT**

### **C.1 Admission**

TRU agrees to accept in the TRU Program, graduates of the VIU Program who meet the criteria set out in Schedule B of this Agreement. Such acceptance is subject to there being seats available in the TRU Program when a VIU student applies. VIU's students may apply after successfully completing VIU's entire program and any related requirements.

### **C.2 Changes to the VIU Program**

VIU agrees to provide TRU with at least twelve to eighteen (12-18) months' notice of any substantive changes planned to the admission standards, graduation requirements, curriculum or course offerings within the VIU Program, or any planned changes to the length in weeks, hours of instruction or overall duration of the VIU Program. A substantive change is any change in curriculum that could alter the learning outcomes, admission requirements or graduation requirements of the VIU Program. Depending on the nature of the curriculum change to the VIU Program, a re-evaluation of the course(s) with associated changes in credits awarded may occur.

### **C.3 Changes to the TRU Program**



TRU agrees to provide VIU with at least sixty (60) days' notice of any changes planned to the current admission standards or graduation requirements of the TRU Program that may affect the eligibility of VIU Program graduates.

#### **C.4 Mutual grant of rights**

Each party grants to the other party a non-exclusive, non-transferable, revocable, royalty-free license during the term of the Agreement to use the trademark of the other party as shown in Appendices B and C for promotional purposes relevant to this Agreement provided that such use does not 1) contravene the other party's policy or practice as to proper use of its mark, or 2) in the opinion of the other party, damage its reputation or goodwill.

#### **C.5 Promotion by VIU**

VIU agrees to:

- Make information about this Agreement available to current students and to graduates of the VIU Program.
- Promote the opportunity for VIU's students and graduates to participate in the TRU program, in relevant school marketing materials, including online media and websites, and
- Provide appropriate opportunities for representatives of TRU to visit appropriate forums at VIU to disseminate information about the TRU Program.

#### **C.6 Preparation of promotional material by TRU**

TRU agrees to prepare and offer to VIU for comment any promotional material relevant to participation in this Agreement.

#### **C.7 Evaluation**

VIU and TRU shall conduct an evaluation of the operation of this Agreement on the first and each subsequent anniversary of the signing of the Agreement. Where possible this evaluation will consist of both parties examining:

- The number of qualified VIU students admitted into the TRU Program during the prior year;
- Approved or proposed changes to courses in either the TRU Program or the VIU Program;



- Admission procedures, program planning, time lines and special requirements;
- Placement tests, fees and certification for VIU Program; and/or
- Recommendation for types and times of promotion efforts.

**C.8 Contact**

Each of VIU and TRU will designate a representative at its respective campus to be responsible for inter-institutional administrative implementation of this Agreement and compliance with this Agreement.

**D TERM AND TERMINATION**

- D.1 This Agreement will become effective on the date of signing and shall have an initial term of five (5) years. The term shall be extended on a year-by-year basis unless either party notifies the other in writing at least three (3) months' before the end of the then-current term of its desire to terminate the agreement. Either party can terminate this agreement for any reason at any time upon giving three (3) months prior written notice to the other party.
- D.2 In the event of the termination of this Agreement under Section D.1, both parties acknowledge and agree that, subject to Section C.1 above, all students enrolled in the VIU Program as at the date of the written notice of such termination shall be entitled to the benefit of this Agreement despite its termination upon their graduation from the VIU Program so as to ensure the fulfillment of the reasonable expectations of such students.

**E GENERAL**

- E.1 For the purposes of this Agreement, any notice or other communication between the Parties may be delivered by courier, mail, facsimile or electronic mail to the respective addresses of the Parties set out below:

**Thompson Rivers University**  
Department of Strategic Partnerships  
B.C. Centre for Open Learning, 4<sup>th</sup> Floor  
805 TRU Way



# THOMPSON RIVERS UNIVERSITY

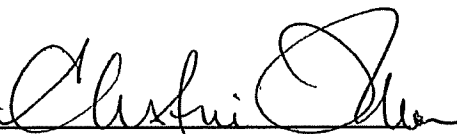
Kamloops, B.C. V2C 0C8  
Attention: Coordinator, External Agreements

**Vancouver Island University**  
900 5<sup>th</sup> Street  
Nanaimo, BC V9R 5S5  
Attention: Carol Stewart, Interim Vice-President and Provost

- E.2 This Agreement shall be construed in accordance with the laws of the Province of British Columbia and any legal proceedings with respect to this Agreement will be brought forward in Kamloops, B.C.
- E.3 Neither party to this Agreement shall be liable to the other party for any failure or delay in performance caused by circumstances beyond its control including, but not limited to, acts of God, fire or flood, labour difficulties, unusually severe weather or governmental action. If TRU ceases offering the TRU Program, it will have no obligation to accept VIU students into the TRU Program unless and until it starts offering the TRU Program again.
- E.4 This Agreement constitutes the entire agreement of the parties with respect to the subject matter set out herein and may only be amended in writing signed by the parties.

DATED the 11 day of February, 2019

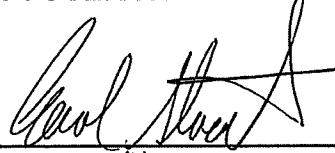
## THOMPSON RIVERS UNIVERSITY

Per:   
Dr. Christine Bovis-Crossen  
Provost & Vice-President Academic

Duly authorised signatory

Date: 11 February 2019  
(Day / Month / Year)

## VANCOUVER ISLAND UNIVERSITY

Per:   
Carol Stewart  
Interim Vice-President Academic  
and Provost

Duly authorised signatory

Date: Feb 26 / 2019  
(Day / Month / Year)



**Schedule A**

**Articulation Agreement between Thompson Rivers University and Vancouver Island University**

**VIU Program: Fundamentals of Engineering Certificate Program**

**VIU Program Requirements:**

<b>Year 1</b>		
<b>Fall Semester</b>	<b>Course Name</b>	<b>Credits</b>
CHEM 150	Engineering Chemistry	4
CSCI 160	Computing Science I	4
ENGL 115	University Writing and Research	3
ENGR 112	Engineering Design I	3
MATH 100 <sup>1</sup>	Calculus for Engineering and Physical Sciences	3
PHYS 121	Physics for the Physical Sciences I	4
<b>Spring Semester</b>		
ENGL 204 <sup>2</sup>	Business and Technical Writing	3
ENGM 141	Engineering Mechanics	3
ENGR 121	Engineering Design II	3
MATH 101 <sup>1</sup>	Calculus for Engineering and Physical Sciences	3
MATH 141	Matrix Algebra for Engineers	3
PHYS 122	Physics for the Physical Sciences II	4
<b>Total Credits</b>		<b>40</b>

<sup>1</sup> MATH 100/101 (preferred) or MATH 121/MATH 122 may be taken in lieu.

<sup>2</sup> ENGL 125, ENGL 135, or an approved elective may be taken in lieu of ENGL 204.





**Schedule B**

**Articulation Agreement between Thompson Rivers University and Vancouver Island University**

**TRU Program: Bachelor of Engineering in Software Engineering**

**Year 1:**

**Fall Term:**

ENGR 1100	Introduction to Engineering & Design
SENG 1110	Programming for Engineers 1
DRAF 1520	Engineering Graphics
ENGL 1100	Introduction to University Writing
EPHY 1150	Physics for Engineers 1
MATH 1130	Enriched Calculus 1

**Winter Term:**

EPHY 1250	Physics for Engineers 2
EPHY 1700	Engineering Mechanics 1
MATH 1230	Enriched Calculus 2
MATH 1700	Discrete Mathematics
EPHY 1990	Introduction to Engineering Measurements
SENG 1210	Programming for Engineers 2

**Year 2:**

**Fall Term:**

PHYS 2150	Circuit Analysis
EPHY 2200	Electrical Properties of Materials



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ENGR 2200	Engineering in Society, Health and Safety
CENG 2010	Computer Architecture & Assembly Language
CMNS 1290	Introduction to Professional Writing
STAT 2230	Probability and Statistics for Engineers
MATH 1300	Linear Algebra for Engineers

**Winter Term:**

CENG 2030	Introduction to Digital Signal Processing
EPHY 2990	ECE Design
EPHY 2300	Digital Electronics
PHYS 2250	Intermediate Electromagnetism
ENGR 2300	Engineering Management
ENGR 2400	Engineering Economics
CHEM 1520	Principles of Chemistry

**Year 3:**

**Fall Term**

SENG 3110	Algorithms & Data Structures
CENG 3010	Computer System Design
EENG 3010	Introduction to Control Systems
SENG 3130	Software Requirements and Specifications
CENG 3310	Digital Communications Systems
ENGR 3300	Engineering Professional Ethics

**Winter Term**

COMP 3410	Operating Systems
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COMP 3610	Database Management Systems Design
SENG 3120	Software Engineering Design: Process & Principles
SENG 3210	Applied Software Engineering
CENG 3020	Real Time Systems Design
XXXX	Natural Science Elective

**Year 4:**

**Fall Term: Work Term-I**

**Winter Term: Work Term-II**

**Year 5:**

**Fall Term**

SENG 4100	Software Engineering Design Project
SENG 4120	Software Model Engineering & Formal Methods
SENG 4110	Software Testing & Verifications
SENG 4130	Software Design Patterns
SENG 4XXX	Upper Level Technical Elective -1
SENG 4XXX	Upper Level Technical Elective -2

**Winter Term**

CENG 4320	Communications Networks
SENG 4230	Software Estimation
SENG 4220	Software Security Engineering
SENG 4140	Software Quality Engineering
SENG 4XXX	Upper Level Technical Elective-3



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SENG 4XXX

Upper Level Technical Elective -4

**TRU Program Requirements:**

Program requirements are subject to change. The current program requirements are set out below.

*Bachelor of Engineering in Software Engineering*

1. Completion of 152 credits.
2. Completion of TWO COOP Work Terms.
3. Student must earn a grade of "C" or better in all prerequisite courses.
4. Student must achieve a cumulative grade point average (GPA) of 2.5 in order to graduate.
5. Student must maintain a cumulative grade point average (GPA) of 2.33 in order to progress.
6. Completion of the following courses:

CENG 2010	Computer Architecture & Assembly Language
CENG 2030	Introduction to Digital Signal Processing
CENG 3010	Computer System Design
CENG 3020	Real Time Systems Design
CENG 3310	Digital Communications Systems
CENG 4320	Communications Networks
CHEM 1520	Principles of Chemistry
CMNS 1290	Introduction to Professional Writing
COMP 3410	Operating Systems
COMP 3610	Database Management Systems Design
DRAF 1520	Engineering Graphics
EENG 3010	Introduction to Control Systems
ENGL 1100	Introduction to University Writing
ENGR 1100	Introduction to Engineering & Design
ENGR 2200	Engineering in Society, Health and Safety
ENGR 2300	Engineering Management
ENGR 2400	Engineering Economics
ENGR 3300	Engineering Professional Ethics
EPHY 1150	Physics for Engineers 1
EPHY 1250	Physics for Engineers 2



EPHY 1700	Engineering Mechanics 1
EPHY 1990	Introduction to Engineering Measurements
EPHY 2200	Electrical Properties of Materials
EPHY 2300	Digital Electronics
EPHY 2990	ECE Design
MATH 1130	Enriched Calculus 1
MATH 1230	Enriched Calculus 2
MATH 1300	Linear Algebra for Engineers
MATH 1700	Discrete Mathematics
PHYS 2150	Circuit Analysis
PHYS 2250	Intermediate Electromagnetism
SENG 1110	Programming for Engineers 1
SENG 1210	Programming for Engineers 2
SENG 3110	Algorithms & Data Structures
	Software Engineering Design: Process & Principles
SENG 3120	
SENG 3130	Software Requirements and Specifications
SENG 3210	Applied Software Engineering
SENG 4100	Software Engineering Design Project
SENG 4110	Software Testing & Verifications
SENG 4120	Software Model Engineering & Formal Methods
SENG 4130	Software Design Patterns
SENG 4140	Software Quality Engineering
SENG 4220	Software Security Engineering
SENG 4230	Software Estimation
SENG 4XXX	Upper Level Technical Elective -1
SENG 4XXX	Upper Level Technical Elective -2
SENG 4XXX	Upper Level Technical Elective-3
SENG 4XXX	Upper Level Technical Elective -4
STAT 2230	Probability and Statistics for Engineers
XXXX	Natural Science Elective

**Program Structure of Bachelor of Engineering in Software Engineering**

Calendar Year	Fall	Winter	Summer
1	Study term-1	Study term-2	Co-op Work term (optional)



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<b>2</b>	Study term-3	Study term-4	Co-op Work term (optional)
<b>3</b>	Study term-5	Study term-6	Co-op Work term (optional)
<b>4</b>	Co-op Work term (mandatory)	Co-op Work term (mandatory)	Co-op Work term (optional)
<b>5</b>	Study term-7	Study term-8	

**Note:**

**Academic elective credits.** The number of elective credits required depends on the number of credits awarded for the VIU Program.

Exemptions without credit may be granted for appropriate courses taken within the VIU Program (excluding courses needed to fulfill the residency requirements). This may increase the number of elective credits required for program completion.

TRU Program students are responsible for consulting with their TRU Program advisor to ensure courses selected are appropriate for their program of study or to meet future educational goals. Students require a Letter of Permission to register in a course at any other post-secondary institution to complete the credential. Students who proceed without approval may find that a course does not meet requirements and may be subject to credit assessment fees.

**University Admission Requirements:**

VIU applicants who have successfully completed all courses within the agreement with a minimum TRU GPA of C+ (VIU GPA of 2.33) and have no courses applicable for transfer with a grade less than a 'C' will be guaranteed second year standing within the Bachelor of Engineering in Software Engineering at TRU.

VIU applicants will be required to take DRAF 1520 (Engineering Graphics), MATH 1700 (Discrete Mathematics upon transfer to TRU, and SENG 1210 (Programming for Engineers II). Students will receive second-year credit for CHEM 1520, CMNS 1290 and MATH 1300.

Admission requirements are subject to change. Students applying for admission to the TRU Program are required to submit the *TRU application for admission* form and applicable application fee. Students are subject to all TRU admission policies including the requirement to provide original documentation showing their full post-



secondary academic history along with graduation with a relevant certificate and/or diploma from a recognized program and institution.

Before graduates of the VIU Program can claim the credits shown in this Schedule and detailed in Appendix A, VIU's administrative office must first directly submit a sealed transcript to TRU's Admissions Office confirming the graduates' successful completion of the VIU Program.

**Fees:**

VIU Program graduates entering the TRU Program are subject to standard fees as outlined in TRU policy and academic calendar, unless otherwise stated in this Agreement.



**Credit Transfer:**

**The VIU Program articulates with the following credits into the University Program:**

**Fundamentals of Engineering Certificate Program is granted a maximum of 36 transfer credits into the Bachelor of Engineering in Software Engineering as detailed in Appendix A.**





**Appendix A**

**TRU Program: Bachelor of Engineering in Software Engineering**

**VIU Program: Fundamentals of Engineering Certificate Program**

**Block Transfer: 36 credits (Lower Level)**

**Credit Requirements Remaining: 116 credits (44 Lower Level; 72 Upper Level)**

<b>VIU</b>	<b>TRU</b>	<b>TRU Title</b>	<b>TRU Credit</b>	<b>Comment</b>
CHEM 150	CHEM 1520	Principles of Chemistry	3	Scheduled in Term 2B at TRU
CSCI 160	SENG 1100	Programming for Engineers I	3	
ENGL 115	ENGL 1100	Introduction to University Writing	3	
ENGL 204	CMNS 2290	Introduction to Professional Writing	3	Scheduled in Term 2A at TRU
ENGR 112 + ENGR 121	ENGR 1100 + EPHY 1990	Introduction to Engineering and Design / Introduction to Engineering Measurements	6	
ENGM 141	EPHY 1700	Engineering Mechanics I	3	
MATH 100 (or MATH 121)	MATH 1130	Enriched Calculus I	3	
MATH 101 (or MATH 122)	MATH 1230	Enriched Calculus II	3	
MATH 141	MATH 1300	Linear Algebra for Engineers	3	Scheduled in Term 2A at TRU



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PHYS 121	EPHY 1150	Physics for Engineers I	3	
PHYS 122	EPHY 1250	Physics for Engineers II	3	
		<b>Total Credits</b>	<b>36</b>	



**THOMPSON RIVERS UNIVERSITY**

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**Appendix B**

**University Mark**



**THOMPSON RIVERS UNIVERSITY**



**THOMPSON RIVERS UNIVERSITY**

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**Appendix C**

**VIU Mark**



**VANCOUVER ISLAND  
UNIVERSITY**