TRANSFER AGREEMENT

Between
The Lutheran University Association Inc.
d/b/a Valparaiso University (VU)
and
Ivy Tech Community College Statewide (ITCC)

For Transfer of Ivy Tech Community College's Associate of Science (A.S.) degree in Computer Science to Valparaiso University's Bachelor of Science (B.S.) degree in Computer Science

Statement of Purpose

The purpose of this transfer agreement is to provide a basis for a cooperative relationship between VU and ITCC to benefit students who desire to complete a bachelor's degree. The intent is for ITCC students completing the Transfer as a Junior degree program to move seamlessly to the VU Bachelor of Science degree program.

Transfer Agreement

Ivy Tech Community College graduates from the Associate of Science degree program of study in Computer Science may transfer and apply 60 credit hours from that completed degree to the requirements for Valparaiso University's Bachelor of Science degree in Computer Science.

Addendum One: *ITCC Curriculum for Associate of Science in Computer Science*
Indiana College Core Requirements
Associate of Science Course Requirements

Addendum Two: *Course Requirements for Transfer Details*
The course requirements for this transfer agreement, including remaining courses required at VU (transfer institution) to fulfill the baccalaureate degree requirements and a sample semester sequence

Addendum Three: *Indiana College Core Course Transfer Information*

Additionally, under the terms of this agreement:

1. Ivy Tech students are eligible for admission with junior standing to VU provided:
    a. The student has submitted a complete application for admission to VU.
    b. A course grade of "C" or better must be earned to be accepted for transfer[1].
    c. The student has a 2.5 or higher grade-point average on a 4-point scale[2].

2. Within the Ivy Tech Indiana College Transfer Core listing, under the Scientific Ways of Knowing category, ITCC students are required to select one track from the 3 tracks offered: Biology, Chemistry, and Physics. Each track provides 10 credit hours, two courses, 5 credit hours each. *It is important to note that ITCC students must choose one track and complete both courses within that track.* The courses cannot be mixed, i.e. completing one course in Biology and another course in Physics.

3. As ITCC graduates complete the credit hour requirements for the award of the B.S. degree in Computer Science, they must meet the graduation requirements as approved by VU at the time of the student's admission to the B.S. degree in Computer Science.

[1] VU policy is "C-" or better. ITCC requested "C" or better to align with ITCC grading system.
[2] Minimum admissible GPA for VU transfer student admission.

4. Written notice of intention to terminate, modify, or withdraw from this Articulation Agreement will be submitted by the academic head of either institution at least one academic semester prior to the proposed date of termination/withdrawal. Should a decision be made to modify or dissolve this agreement, students who are already attending VU at the time will be permitted to continue as long as their academic performance remains in good standing.

5. Recognizing that changes in curricula and course content are inevitable, each institution agrees to discuss with the other institution all curriculum changes affecting this agreement before the changes are implemented.

6. This agreement becomes effective when all signatures are affixed and remains in effect for two years from the date below. After two years, the agreement may be renewed with or without modification by mutual agreement of both Ivy Tech Community College and Valparaiso University.

Agreed to March 22, 2022 (date)

Ivy Tech Community College

DocuSigned by:
Dean McCurdy 3/23/2022
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Interim Provost and Senior Vice President
for Academic Affairs

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Aco Sikoski
Campus Chancellor

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Vice Chancellor for Academic Affairs

The Lutheran University Association Inc. d/b/a Valparaiso University

DocuSigned by:
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Eric W. Johnson, Ph.D.
Provost and Executive Vice President
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Jon T. Kilpinen, Ph.D.
Dean, College of Arts and Sciences

Addendum One: Ivy Tech Community College Curriculum
College-Wide Curriculum of Record
School of Information Technology
Computer Science Program
Associate of Science Degree
2021-22

Recommended Full-Time Course Sequence

The following suggested sequence includes all course requirements for this degree.

		Credits
*ENGL 111	English Composition	3
*COMM 101	Fundamentals of Public Speaking	3
IVYT 115	Student Success in Computing and Informatics	1
SDEV 120	Computing Logic	3
XXXX XXX	***Select one of the following Humanistic and Artistic Ways of Knowing Electives**	3
ARTH 101	Survey of Art and Culture I	
ARTH 102	Survey of Art and Culture II	
ARTH 110	Art Appreciation	
ENGL 202	Creative Writing	
ENGL 206	Introduction to Literature	
ENGL 220	Introduction to World Literature Through the Renaissance	
ENGL 221	Introduction to World Literature After the Renaissance	
ENGL 222	American Literature To 1865	
ENGL 223	American Literature After 1865	
HUMA 118	Music Appreciation	
PHIL 102	Introduction to Ethics	
CSCI 101	Computer Science I	3
CSCI 105	Discrete Logic for Computers	3
XXXX XXX	***Select one of the following Social and Behavioral Ways of Knowing Electives**	3
ANTH 154	Cultural Anthropology	
ECON 201	Principles of Macroeconomics	
ECON 202	Principles of Microeconomics	
HIST 101	Survey of American History I	
HIST 102	Survey of American History II	
POLS 101	Intro to American Government & Politics	
POLS 211	Intro to World Politics	
PSYC 240	Human Sexuality	
SOCI 111	Intro to Sociology	
SOCI 245	Cultural Diversity	

SOCI 252	Social Problems	
MATH 211	Calculus I	4
*MATH 212	Calculus II	4
INFM 109	Informatics Fundamentals	3
CSCI 210	Database Systems	3
CSCI 201	Computer Science II	3
Choose 5 credits from the following:		5
*BIOL 105	Biology I	
*CHEM 105	General Chemistry I	
*PHYS 220	Mechanics	
CSCI 279	Computer Science Capstone	1
SDEV 265	Software Development Projects	3
CSCI 202	Data Structures	3
Choose 3 credits from the following:		3
SDEV 200	Software Development Using Java	
SDEV 220	Software Development Using Python	
SDEV 240	Software Development Using C#	
Choose 1 credits from the following:		1
SDEV 271	WF Prep: Oracle JAVA Foundations	
SDEV 272	WF Prep: Python	
SDEV 273	WF Prep: C++ Institute C++CPA	
SDEV 274	WF Prep: Microsoft 70-483 C# JumpStart	
CPIN 276	Scrum Fundamentals	
CPIN 280	COOP/Internship/Externship	
Choose 5 credits from the following (same subject as taken prior):		5
BIOL 107	Biology II	
CHEM 106	Chemistry II	
PHYS 221	Heat, Electricity, and Optics	
	Total	**60 credits**

^ Capstone Course

***** Required for Indiana College Core (ICC) Certificate

The Indiana College Core (ICC) Certificate requirements for this degree require a minimum of 30 credits. The ICC Certificate requires a minimum of one course from six areas of study. The number of ICC elective courses shown above may vary based on required ICC course credits earned, area of study, and the student's Individual Academic Plan. The remaining degree requirements provide a mechanism for students to obtain the required minimum 60 credits to graduate with the appropriate Associate level transfer degree.

Addendum Two: Valparaiso University Course Equivalencies and Requirements
Bachelor of Science in Computer Science
2021-22

ITCC Course	ITCC Title	ITCC Credit Hours	VU Course	VU Credit Hours
ITCC Transfer General Education Curriculum				
ENGL 111	English Composition	3	CORE 110 (+CORE 115 equiv. based on >30 trf credits)	3
COMM 101	Fundamentals of Public Speaking	3	CVA 243	3
MATH 211	Calculus I	4	MATH 131	4
MATH 212	Calculus II	4	MATH 132	4
Scientific Ways of Knowing Track **Choose One:** BIOL106, CHEM 105, or PHYS 220	Biology I, General Chemistry I, or Mechanics	5	BIO 171 + BIO 171L + TR UND, CHEM 121 + CHEM 121L + TR UND, or PHYS 141 + PHYS 141L + TR UND	4+0+1, 4+0+1, or 3+1+1
Scientific Ways of Knowing Track **Continue the subject already started:** BIOL 107, CHEM 106, PHYS 221	Biology II, General Chemistry II, or Heat, Electricity, and Optics	5	BIO 172 + BIO 172L + TR UND, CHEM 122 + CHEM 122L + TR UND, or PHYS 142 + PHYS 142L + TR UND	4+0+1, 4+0+1, or 3+1+1
Social and Behavioral Ways of Knowing Elective - **Choose One[3]:** ANTH 154, ECON 201, ECON 202, HIST 101, HIST 102, POLS 101, POLS 211, PSYC 240, SOCI 111, SOCI 245, or SOCI 252	Cultural Anthropology, Principles of Macroeconomics, Principles of Microeconomics, Survey of American History I, Survey of American History II, Intro to American Government & Politics, Intro to World Politics, Human Sexuality, Intro to Sociology, Cultural Diversity, or Social Problems	3	TR-UNDCD, ECON 222, ECON 221, HIST 120, HIST 121, POLS 120, POLS 150, SOC 110, PSY-UNDCD, SOC-UNDCD, SOC 210	3

[3] These courses fulfill both an Ivy Tech and a VU General Education requirement. If a student chooses a different Social and Behavioral Ways of Knowing Elective from the ICC Certificate, that course will transfer to VU as undistributed elective credit toward the Bachelor of Science degree requirements. The student will then fulfill the missing VU Bachelor of Science General Education requirement at VU in place of an elective.

Humanistic and Artistic Ways of Knowing Elective - **Choose One**[4]: ARTH 101, ARTH 102, ARTH 110, ENGL 202, ENGL 206, ENGL 220, ENGL 221, ENGL 222, ENGL 223, HUMA 118, or PHIL 102	Survey of Art and Culture I, Survey of Art and Culture II, Art Appreciation, Creative Writing, Intro to Literature, Intro to World Literature Through the Renaissance, Intro to World Literature After the Renaissance, American Lit to 1865, American Lit After 1865, Music Appreciation, or Intro to Ethics	3	CVA 101, CVA 102, TR-UNDHF, ENGL 201, ENGL 200, ENGL-UNDHL, ENGL-UNDHL, ENGL 312, ENGL 313, MUS 101, or PHIL 125	3
ITCC Program Course Requirements				
CSCI 101	Computer Science I	3	CS 157	3
CSCI 201	Computer Science II	3	CS 158	3
CSCI 105	Discrete Logic for Computers	3	MATH 220	3
CSCI 202	Data Structures	3	CS UND2 (200-Level Elective)	3
CSCI 210	Database Systems	3	CS 350	3
INFM 109	Informatics Fundamentals	3	TR UND	3
SDEV 120	Computing Logic	3	TR UND	3
SDEV 265	Software Development Projects	3	CS UND2 (200-Level Elective)	3
Project Elective I **Choose One -** SDEV 200, SDEV 220, or SDEV 240	Software Development Using Java, Python, or C#	3	CS UND2 (200-Level Elective)	3
Project Elective II **Choose One -** SDEV 271, SDEV 272, SDEV 273, SDEV 274, CPIN 276, or CPIN 280	WF Prep Oracle Java Foundations, Python, C++ Institute, Microsoft 70-483 C#, Scrum Fundamentals, or COOP/Intern/Externship	1	CS UND2 (200-Level Elective)	1
ITCC Other Institutional Requirements				
IVYT 115	Student Success in Computing and Informatics	1	TR UND	1
^CSCI 279	Computer Science Capstone	1	CS UND2 (200-Level Elective)	1

[4] These courses fulfill both an Ivy Tech and a VU General Education requirement. If a student chooses a different Human and Artistic Ways of Knowing Elective from the ICC Certificate, that course will transfer to VU as undistributed elective credit toward the Bachelor of Science degree requirements. The student will then fulfill the missing VU Bachelor of Science General Education requirement at VU in place of an elective.

Total Credits for ITCC A.S. in Computer Science Degree	**60**	**Total Transfer Credits to VU**	**60**

Sample course sequence for B.S. in Computer Science at Valparaiso University

Fifth Semester

VU Course	VU Course Title	Credits
Statistics (CE 202, IDS 205, PSY 201, STAT 140, or STAT 240)	Statistics	3
CS 250	Object-Orientated Programming	3
Minor Course		3
Natural Science Gen Ed (different subject than taken at ITCC)		3-4
THEO 200 (could fulfill WIC here too)	The Christian Tradition	3
Total Semester		**15-16**

Sixth Semester

VU Course	VU Course Title	Credits
CS 493	Seminar in Professional Practices	2
CS 358 or CS 372	Software Design and Development or Computability and Computational Complexity	4
CS Elective 300+		3
Minor Course		3
Remaining Gen Ed (could fulfill WIC here)		3
KIN 101	Wellness and Stress	1
Total Semester		**16**

Seventh Semester

VU Course	VU Course Title	Credits
CS Elective 300+		3
Minor Course		3
Minor Course		3
THEO 300		3
Remaining Gen Ed		3
WIC course (if still needed) or elective		3
Total Semester		**18**

Eighth Semester

VU Course	VU Course Title	Credits
CS Elective 300+		3

Minor Course	3
Remaining Gen Ed	3
Electives	5-6
Total Semester	**14-15**

Total Credit Requirement at VU: 124 credits (60 transfer + 64 VU)

For a 40-credit major option, instead of completing a minor, the student must complete an additional 2 credits of CS-200+ elective at Valparaiso University that will be counted towards 124 credits.

Addendum Three:
Indiana College Core Course Transfer Information

The following courses or discipline categories are recommended or required to fulfill Ivy Tech Community College's Indiana College Core for students pursuing the Bachelor of Science degree in Computer Science from Valparaiso University. The information below provides details on how these course requirements will be transferred to meet Valparaiso University degree requirements.

Ivy Tech Community College Courses Fulfilling Indiana College Core Competencies

**** All courses are appropriate for STEM programs unless otherwise noted.**

Written Communication ***3 credits*** ***STEM: 3 credits***
ENGL 111 English Composition* transfers as **CORE 110 First-Year Seminar** with CORE 115 First-Year Seminar being waived by transferring in >30 credits toward the BS degree requirements. Students will complete a Writing Intensive Course (WIC) at VU.

Speaking and Listening ***3 credits*** ***STEM: 3 credits***
COMM 101 Fundamentals of Public Speaking* and/or COMM 102 Intro to Interpersonal Communication transfer as CVA 243 Public Speaking, CVA 145 Interpersonal and Small Group Communication elective credit toward the BS degree requirements.

Quantitative Reasoning ***8 credits*** ***STEM: 8 credits***
MATH 211 Calculus I* transfers as MATH 131 Calculus I toward the Computer Science major and fulfilling the **Quantitative Analysis** BS degree requirement. MATH 212 Calculus II* transfers as MATH 132 Calculus II elective credit toward the BS degree requirements.

Scientific Ways of Knowing ***10 credits*** ***STEM: 10 credits***
BIOL 105 Biology I*; BIOL 107 Biology II*; or CHEM 105 General Chemistry I*; CHEM 106 General Chemistry II; or PHYS 220 Mechanics*; PHYS 221 Heat, Electricity, & Optics sequences transfer as fulfilling half of the **Natural Science** cluster for the BS degree requirements.

Social and Behavioral Ways of Knowing ***3 credits*** ***STEM: 3 credits***
ECON 201 Principles of Economics; ECON 202 Principles of Microeconomics; POLS 101 Introduction to American Government and Politics; POLS 211 Introduction to World Politics; and SOCI 111 Introduction to Sociology; transfer as fulfilling half of the **Social Science** cluster for the BS degree requirements.
ANTH 154 Cultural Anthropology; PSYC 240 Human Sexuality; SOCI 245 Cultural Diversity; and SOCI 252 Social Problems transfer as fulfilling the **Cultural Diversity** BS degree requirement.
HIST 101 Survey of American History I; HIST 102 Survey of American History II; and HIST 112 World Civilization II transfer as fulfilling half of the **Humanities** cluster for the BS degree requirement.
PSYC 101 Introduction to Psychology transfers as fulfilling half of the **Natural Science** cluster for the BS degree requirement if the student completes a PSY 111 General Psychology Lab at VU.
PSYC 201 Lifespan Development; PSYC 205 Abnormal Psychology transfer as psychology major/minor courses, elective credit toward a degree in Computer Science.
ECON 101 Economics Fundamentals; SOCI 164 Multicultural Studies; and HIST 111 World Civilization I transfer as **undistributed elective credit** toward the BS degree requirements.

Humanistic and Artistic Ways of Knowing ***3 credits*** ***STEM: 3 credits***

ARTH 101 Survey of Art & Culture; ARTH 102 Survey of Art and Culture II; ARTH 110 Art Appreciation; ENGL 202 Creative Writing; ENGL 206 Introduction to Literature; ENGL 220 Introduction to World Literature; ENGL 221 Introduction to World Literature After the Renaissance; ENGL 222 American Literature to 1865; ENGL 223 American Literature After 1865; HUMA 118 Music Appreciation; PHIL 102 Introduction to Ethics; transfer as fulfilling half of the **Humanities** cluster for the BS degree requirement.
ENGL 214 Introduction to Poetry; HUMA 100 Theatre Appreciation; PHIL 101 Introduction to Philosophy; PHIL 220 Philosophy of Religion; FREN 101 French Level I; FREN 102 French Level II; FREN 201 French Level III; FREN 202 French Level IV; GERM 101 German Level I; GERM 102 German Level II; SPAN 101 Spanish Level I; SPAN 102 Spanish Level II; SPAN 201 Spanish Level III; SPAN 202 Spanish Level IV transfer as **undistributed elective credit** toward the BS degree requirements.

Total Indiana College Core **30 credits**
***CTL courses**