



Software Engineering

Articulation Agreement between Lake Region State College and Valley City State University

Introduction: This articulation agreement formally recognizes that Valley City State University (hereinafter VCSU) and Lake Region State College (hereinafter LRSC) are educational institutions which agree to work together to provide educational opportunities for the students of their institutions.

The Software Engineering major is a face to face program. It will take approximately 2 $\frac{1}{2}$ years after completion of the AAS in IT to complete this degree at VCSU.

Purpose: The purpose of this agreement is to provide a seamless transfer from LRSC to transfer to VCSU in order to earn a Bachelor of Science or Arts in Software Engineering (hereafter referred to as Software Engineering) from VCSU.

Steps:

- Complete the LRSC Associate in Applied Science degree in Information Technology.
- Apply to Valley City State University and declare the Software Engineering major. Transfer credits earned from the LRSC degree will apply toward the Bachelor of Science or Bachelor of Arts degree.
- 3. Students must complete a minimum of 30 hours of upper level (300-400 level) credit from VCSU to complete graduation requirements from VCSU.
- 4. Complete General Education requirements.
- 5. Graduates under this program would earn a Bachelor of Science or Bachelor of Arts degree in Software Engineering.

Note: The Bachelor of Arts degree requires completion of 16 additional credits of Language/Cultural Studies beyond the Bachelor of Science degree requirements. There may be remaining general education courses to complete after transferring to VCSU.

Motivating Principles and Values:

1. Students will be well served by the partnership and the high-quality education program set forth in this agreement.

- 2. This partnership will benefit the educational needs of the region by providing high quality graduates.
- 3. Both campuses will maintain compliance with state and national accreditation guidelines that ensure quality.
- 4. This partnership will provide high quality collaborative program to students in a convenient, timely, flexible, and cost-effective manner.

Accreditation: VCSU is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

Longevity of Agreement: This agreement will be in effect for five (5) years, starting May 1, 2023. At the end of the five (5) years, students who have begun the program and are in the process of completion will be allowed to finish (within a one- or two-year timeline). Agreement will be reviewed as needed to reflect changes in curricula and campus procedures and policies.

Termination or Revisions: LRSC and VCSU agree to provide at least 90 days advance written notification of their intent to terminate the agreement. All revisions of this agreement must be approved in writing by those who sign this agreement or their successors.

Governance and Management: This agreement shall be governed by the academic policies and procedures of LRSC and VCSU. As required by the condition of the program and accreditation, the Bachelor of Science and Bachelor of Arts Software Engineering programs will be governed by the Computer Systems and Software Engineering Department at VCSU. Conversely, the Associate in Applied Science program in Information Technology will be administered by LRSC as required by the guidelines.

VCSU agrees to arrange for a Program Representative to be available to advise Software Engineering students in the program each semester.

Both Valley City State University and LRSC will provide a liaison that will be available to inform and guide students through this program.

VCSU agrees to grant a Bachelor of Science or Bachelor of Arts with a major in Software Engineering to students who successfully complete the requirements for the degree.

It is agreed upon that LRSC will provide general education courses, supplementary curriculum, and elective courses which satisfy VCSU graduation requirements for students enrolled in this program based on LRSC minimum enrollment standards. Students that enter the program with an Association of Arts (AA) degree or an Associate of Science (AS) degree will have their general education requirements completed unless a general education course is specific for the BS degree.

The delivery of courses required to obtain a Bachelor of Science or Bachelor of Arts degree will be delivered using methods that may require the students to be present on the VCSU campus.

Graduation Requirements: A minimum of 120 total credits are required for a Bachelor's degree and must be taken from the appropriate categories. Students must complete a minimum of 30 hours of

upper level (300-400 level) credit from VCSU to complete graduation requirements from VCSU. Credit hours earned at LRSC that do not meet general education requirements, major requirements or major directed elective requirements will be used for electives courses.

Admission: Students taking LRSC course(s) must apply and be accepted for admission at LRSC. Students taking VCSU course(s) must apply and be accepted for admission at VCSU. All admission policies at the respective institution will apply.

Registration: Each institution will follow its own policies and procedures for registering students for their programs(s). LRSC will be responsible for registering students in the associate program(s), and VCSU will be responsible for registering student(s) in the baccalaureate program(s). Registering for LRSC and VCSU courses will be separate functions. Registration for courses will follow the respective institution's timeline and procedures, including add/drop and withdraw.

Student Support Services: LRSC will provide the following services for students who are enrolled in at least one of their courses: Tutoring, Counseling, Disability Support Services. Tutoring services through LRSC will only be available for LRSC courses. While students are taking only VCSU courses, VCSU will be responsible for providing the following services: Tutoring, Counseling, and Disability Support Services.

If students have documented disabilities that may affect their academic experience and are seeking accommodations, it is their responsibility to supply documentation and make a request for services through the office of Student Academic Services as soon as possible.

Financial Aid: Students enrolled in a LRSC two-year degree seeking program will have all aspects of their Federal Title IV Financial Assistance administered by LRSC's Financial Aid Office. This includes, but is not limited to:

- Processing of FAFSA and other applications, determination of eligibility, awarding, and disbursement of funds;
- Assessment and enforcement of satisfactory academic progress standards;
- Calculation and distribution of refunds;
- Administration of all aspects of the Federal Family Educational Loan Programs

During the student's enrollment at LRSC, LRSC policies and procedures will apply. Student budgets (Cost of Attendance) used in establishing aid amounts will be the same as those used for awarding federal aid to other LRSC students. A contact from the LRSC Financial Aid Office will be identified to work with the Valley City State University Financial Aid Office assigned contact.

Valley City State University will be responsible for awarding aid to students who have been admitted to Valley City State University. Students will have all aspects of their Federal Title IV Financial Assistance administered by Valley City State University Student Financial Aid Office. This includes, but is not limited to:

- Processing of applications, evaluation of eligibility, awarding, and disbursement of funds;
- Assessment and enforcement of satisfactory academic progress standards;
- Calculation and distribution of refunds;
- Notifying changes in enrollment status to lenders under the Federal Family Educational Loan Programs.

During this enrollment the Valley City State University policies and procedures will apply. Student budgets (costs) used in establishing aid amounts will be the same as those used for awarding federal aid to other Valley City State University students. A contact from the LRSC Financial Aid Office will be identified to work with the Valley City State University Financial Aid Office assigned contact.

Students on the LRSC campus are not eligible for Valley City State University sponsored scholarships, waivers, or federal student work-study while pursuing a degree from Valley City State University. Students enrolled in the Valley City State University program are not eligible for LRSC sponsored scholarships or waivers.

Entrance and exit loan counseling requirements will be met with the use of electronic counseling available through the website <u>mappingyourfuture.org</u> for Federal Perkins Loan and <u>www.studentloans.gov</u> for direct lending.

Tuition and Fees: Assessment and collection of tuition and fees will be done by the institution that is responsible for the courses. That is, VCSU will be responsible for assessing and collecting all fees, including technology fees for courses offered by VCSU and the same is true of LRSC. All tuition and fees will be collected in accordance with the established policies of the institution to which these payments are due.

Technology and Support Services: VCSU will provide students in this program adequate technical support in a timely manner for the courses taken from VCSU. LRSC will provide students in this program adequate technical support in a timely manner for the courses taken from LRSC.

Students enrolled in at least one VCSU course will have full access to VCSU technology services, including a Blackboard account and a VCSU email/messaging account. Students may elect to pay the VCSU technology "buy up" fee if they would like full-time access to a VCSU laptop according to the established procedures. Please contact VCSU technology services for additional information by phone at 701-845-7340 option 1.

All online students in VCSU courses are expected to abide by the technical requirements, as outlined by university policy. https://onestop.vcsu.edu/support/solutions/articles/10000026708

Marketing: VCSU will be responsible for providing LRSC with marketing materials to distribute to prospective students. LRSC will display information about this agreement on their transfer website. LRSC will work collaboratively with VCSU to identify prospective students for this program.

Textbooks: The textbooks for the VCSU courses will be purchased through VCSU. Likewise, the textbooks for the LRSC courses will be purchased through LRSC. Students will also have the choice to purchase their textbooks on their own.

Faculty and Staff: VCSU will select and assign qualified faculty members to teach the required courses. VCSU will name a Program Coordinator for this agreement. LRSC will assign a faculty member as a liaison for this agreement.

Per NDUS guidelines, VCSU's Agreement Manager for this articulation is Larry Brooks and can be reached through the Academic Affairs office (701-845-7202).

VCSU's Software Engineering Program Coordinator is Susan Pfeifer, Chair of the Computer Systems and Software Engineering Department, 701-845-7719.

Amendments to the Agreement: Mutually agreed upon amendments to this agreement may be approved by those who sign this agreement or their successors. The agreement may be terminated at any time through joint action of the two presidents with adequate provision for currently enrolled students.

Courses Articulated

Courses from LRSC IT AAS Program	Credits	VCSU Software Engineering Program	Credits
Used Towards Gen Ed Program: ENGL	12	Gen Ed Requirements equal 39 credits	
110, ENGL 120 or 125, COMM 110,		- must complete	
MATH 103			
		Software Engineering Required General	
		Education Courses	
		CSCI 127 Introduction to Programming	3
		in Java	
PSYC 111 Introduction to Psychology	3	PSYC 111 Introduction to Psychology	3
(Gen Ed Social Science elective in AAS IT		1 0 10 111 marcadottori to i cyonology	
program)			
ECON 201 Principles of Microeconomics	3	ECON 201 Principles of Microeconomics	3
(Gen Ed Social Science elective in AAS IT		20014 2011 Timespies of Wherecomornies	5
program)			
program			
		Major Required Courses	
CIS 147 Principles of Information	3	CIS 147 Principles of Information	3
Security (if completing the Certificate 2:	٦	Security	٦
Cyber Security)		Security	
Cyber Security)	+	COMM 260 Croup Dunamics	-
	1	COMM 360 Group Dynamics	3
		CSCI 160 Introduction to Structured	3
	+	Programming I	-
		CSCI 161 Introduction to Structured	3
		Programming II	-
		MATH 208 Discrete Mathematics	3
		MATH 321 Applied Probability and	3
		Statistics	-
		SE 110 Discovering Computing	3
		SE 201 Introduction to Software	3
		Engineering	
		SE 211 Software Construction	3
		SE 212 Software Engineering Approach	3
		to Human Computer Interaction	
		SE 242 Data Structures	3
		SE 311 Software Design and	3
		Architecture	
		SE 321 Software Quality Assurance and	3
		Testing	
		SE 380 Systems Analysis and Design	3
		SE 381 Project Management	3
		SE 385 Database Theory/Design	3
		SE 370 Computer Organization &	3
		Systems	
		SE 379 Social Implications of	3
		Computers	
		SE 480 Capstone	3
		Major Directed Electives	

CIS 104 Microcomputer Database, CIS 128 Microcomputer Hardware I, CIS 129 Microcomputer Hardware II, CIS 164 Networking Fundamentals I	12	Directed Electives	12
Classes in Certificate 1: Computer Networking (15) OR Classes in Certificate 2: Cyber Security - all except CIS 147 which is applied to required classes (12) OR Classes in Certificate 3: Web Design (15)	12	Electives to reach 120 to graduate	12

Sample Plan of Study

Fall Year	r 1 at VCSU		Spring Year 1	at VCSU	
Class #	Description	Credits	Class #	Description	Credits
SE 110	Discovering Computing	3	CSCI 127	Introduction to Programming in Java	3
MATH 208	Discrete Mathematics (Odd fall)	3	CSCI 160	Introduction to Structured Programming I	3
SE 201	Introduction to Software Engineering	3	SE 381	Project Management	3
	Lab Science	4	SE 212	Software Engineering Approach to Human Computer Interaction	3
	Wellness	2	SE 379	Social Implications of Computers (spring even)	3
Total		15	Total		15

Fall Year 2 at VCSU		Spring Year 2 at VCSU			
Class #	Description	Credits	Class #	Description	Credits
CSCI 161	Introduction to Structured Programming II	3	SE 242	Data Structures	3
SE 370	Computer Organization & Systems (fall even)	3	SE 211	Software Construction	3
SE 380	Systems Analysis and Design	3	SE 321	Software Quality Assurance and Testing (spring odd)	3
COMM 360	Group Dynamics	3	MATH 321	Applied Probability and Statistics	3
	Gen Ed Humanities	3	SE 480	Capstone	3
Total		15	Total		15

Fall Year	3 at VCSU				
Class #	Description	Credits	Class #	Description	Credits
SE 311	Software Design and Architecture	3			
SE 385	Database Theory/Design	3			
	Gen Ed Humanities	3			
	Additional Gen Ed	2			
	Lab Science	4			
Total		15			

Signatures:	
For LRSC:	
Daug De S	8/29/23
Dr. Doug Darling, President	Date
Letaborno	8/29/23
Lloyd Halvorson, Vice President of Academic Affairs	Date
Heedi Schned	8/29/23
Heidi Schneider, Associate Professor, Faculty Representative	Date
For Valley City State University:	0/11/0
Olan Jo Fave	8/16/23
Dr. Alan LaFave, President	8/14/2023
Larry Brooks, Vice President of Academic Affairs	Date
Lusan E. Haifer	5/1/2023
Susan Pfeifer, Chair, Computer Systems and Software Enginee	ring Date