PROGRAM TO PROGRAM ARTICULATION AGREEMENT

with Respect to Applying the

COMPUTER INFORMATION SYSTEMS

Associate of Applied Sciences Degree Program

Towards the

COMPUTER INFORMATION SYSTEMS MAJOR

Bachelor of Science in Computer Information Systems Degree Program

Between

LAKE AREA TECHNICAL COLLEGE

and

DAKOTA STATE UNIVERSITY

I. Parties

The parties to this agreement are Lake Area Technical College (LATC) and Dakota State University (DSU).

II. Purpose

The purpose of this agreement is to:

A. Have a signed articulation agreement that addresses the varying needs of students and the complementary nature of the institutions' programs.
B. Provide increased education opportunities for students from South Dakota and the region.
C. Extend and clarify educational opportunities for students.
D. Provide LATC students who have completed the A.A.S. degree in Computer Information Systems with a specialization in either the Software Development and Database Administration Option (Attachment A) or Networking and Cybersecurity Option (Attachment B) with an opportunity to earn a Bachelor of Science in Computer Information Systems degree.
E. Provide LATC students who have taken the equivalent LATC courses indicated in the Attachment C course mapping to transfer in fulfillment of the equivalent DSU course.

III. Academic Program

A. Upon successful completion of equivalent courses indicated in Attachment C, DSU aligns up to 52.5 credits from the LATC A.A.S. degree in Computer Information Systems Software Development and Database Administration Option and up to 49 credits from the LATC A.A.S. degree in Computer Information Systems Networking and Cybersecurity Option to the B.S. Computer Information Systems major core and general education requirements.

a. All 70 credits from a completed LATC A.A.S. degree will transfer to DSU as either a mapped equivalent course, general education course, or elective credit.

b. The alignment of equivalent general education course options for students outlined in LATC plans of study is indicated in Attachment C, and potential remaining general education courses are indicated in Attachment D. 12 credits of general education have been included in the above-mapped credit totals. General education coursework will be evaluated for transfer on a course-by-course basis, and additional equivalent credits to the indicated can be transferred.

B. Requirements to be completed at DSU to earn a Bachelor of Science in Computer Information Systems degree are outlined in C below. Board of Regents policies, university graduation requirements, and degree residency requirements must be met, including the following (see BOR Policy 2.6.1).

a. A bachelor's degree requires 120 total credits.

b. A minimum of 30 credit hours must be earned at DSU.

c. A minimum of 15 of the last 30 credit hours must be earned at DSU.

d. This agreement waives the residency requirement for the minimum number of credits (50 percent) specified in the major requirements that must be completed at the degree-granting institution.

C. Requirements to be completed at DSU are indicated in Attachment D, including:
   a. Remaining major requirements.
   b. Remaining general education/Institutional graduation requirements.
      i. All 30 required credits must meet System General Education requirements and be selected from the approved list of courses specified in BOR policy 2.3.7.
      ii. Additional earned general education course credits can be reviewed for transfer equivalency.

IV. Obligations

Both parties agree to confer with each other on a yearly basis regarding changes in curricula involved in this articulation agreement.
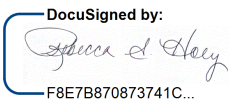
V. Modification

This agreement may be modified from time to time by the South Dakota Board of Regents, Dakota State University and Lake Area Technical College with approval by the South Dakota Board of Education. Modifications may not diminish the entitlements enjoyed by students who have already attended classes delivered under the terms of earlier versions of the agreement,

except in rare instances in which retroactive implementation of modifications may be required to comply with accreditation standards or to conform to professional licensure requirements.

VI. Effective Date of Agreement

Start Date of the Fall 2025 term at LATC and DSU. This agreement applies to students who graduated from LATC in 2025 and subsequent years.

VII. Acceptance of Agreement

X _____

Dr. Rebecca Hoey
Provost, Dakota State University

X _____

Cameron Corey
Vice President, Lake Area Technical College

Attachment A: Lake Area Technical College Computer Information Systems Course Listing 2025-2026Associate of Applied Science (A.A.S.) Degree Networking and Cybersecurity Option – Credits Required for Graduation: 70

Computer Information Systems
Networking and Cybersecurity Option
Semester Course Outline • 2025 – 2026
18 Months (4 Semesters) • Revised: 1/27/25
Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 70

Fall Semester – 2025

Course Number	Course Title	Clock Hours	Credits
CIS 115	IT Essentials	45	3
CIS 132	Intro to Computer Programming	45	3
CIS 140	Database Design and MySQL	45	3
NET 115	Networking I	112	4
● Selected Behavioral Science Course (Choose one) 　PSYC 100 – Psychology of Human Relations 　PSYC 101 – General Psychology *		45	3
● Selected Mathematics Course (Choose one) 　MATH 100 – Applied General Math 　MATH 101 – Intermediate Algebra 　MATH 114 – College Algebra *		45	3
	Total	337	19

Spring Semester – 2026

Course Number	Course Title	Clock Hours	Credits
CIS 260	UNIX OS Administration	60	4
CIS 280	Windows Server Administration	84	3
NET 121	Networking II	112	4
NET 131	Networking III	112	4
● Selected Communications Course (Choose one) 　COMM 101 – Communications and Career Strategies 　ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit)		45	3
	Total	413	18

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Networking and Cybersecurity Option
Semester Course Outline · 2025 – 2026 · Revised: 1/27/25

Fall Semester – 2026

Course Number	Course Title	Clock Hours	Credits
CIS 265	Virtualization	45	3
CIS 285	System Administration	84	3
EST 232	Electronic Troubleshooting for Computer Science	56	2
NET 215	Security Appliances and Firewalls	84	3
CMST 101	Foundations of Communication *	45	3

• Selected Social Science Course (Choose one)
    ECON 105 – Leadership in the Global Workplace
    ECON 201 – Principles of Microeconomics I *
    SOC 100 – Introduction to Sociology *
		45	3

	Total	359	17

Spring Semester – 2027

Course Number	Course Title	Clock Hours	Credits
CIS 215	Cybersecurity and Ethical Hacking	45	3
CIS 290	System Analysis and Design	45	3
CIS 299	Internship	240	4
NET 275	Advanced Networking I	112	4
NET 278	Advanced Networking II	30	2
	Total	472	16

• Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (*) can be transferred directly to the university system. Students should speak with an advisor before doing so.

Attachment B: Lake Area Technical College Computer Information Systems Course Listing 2025-2026 Associate of Applied Science (A.A.S.) Degree Software Development and Database Administration Option – Credits Required for Graduation – Credits Required for Graduation: 70

Computer Information Systems
Software Development and Database Administration Option
Semester Course Outline · 2025 – 2026
18 Months (4 Semesters) · Revised: 1/27/25
Associate of Applied Science (A.A.S.) Degree · Credits Required for Graduation: 70

Fall Semester – 2025

Course Number	Course Title	Clock Hours	Credits
CIS 115	IT Essentials	45	3
CIS 133	Intro to C Sharp	45	3
CIS 140	Database Design and MySQL	45	3
CIS 141	Web Design and Maintenance	45	3
CIS 171	Project Management with Agile and Scrum	45	3

• Selected Behavioral Science Course (Choose one)
  PSYC 100 – Psychology of Human Relations
  PSYC 101 – General Psychology *
		45	3

Total		270	18

Spring Semester – 2026

Course Number	Course Title	Clock Hours	Credits
CIS 136	Java Essentials	45	3
CIS 180	Intro to C++	45	3
CIS 238	Full Stack JavaScript for Developers	45	3
CIS 276	Web Applications – PHP	45	3

• Selected Communications Course (Choose one)
  COMM 101 – Communications and Career Strategies
  ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit)
		45	3

• Selected Mathematics Course (Choose one)
  MATH 100 – Applied General Math
  MATH 101 – Intermediate Algebra
  MATH 114 – College Algebra *
		45	3

Total		270	18

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Software Development and Database Administration Option
Semester Course Outline • 2025 – 2026 • Revised: 1/27/25

Fall Semester – 2026

Course Number	Course Title	Clock Hours	Credits
CIS 221	Advanced JavaScript	22.5	1.5
CIS 222	Intro to Python	22.5	1.5
CIS 240	Java for Mobile Apps	45	3
CIS 272	Client Server Programming	84	3
CIS 273	Web Applications – ASP	45	3
CMST 101	Foundations of Communication *	45	3

• Selected Social Science Course (Choose one)
 	
    ECON 105 – Leadership in the Global Workplace
 	
    ECON 201 – Principles of Microeconomics I *
 	
    SOC 100 – Introduction to Sociology *
		45	3

	Total	309	18

Spring Semester – 2027

Course Number	Course Title	Clock Hours	Credits
CIS 244	Advanced Python	45	3
CIS 255	Application Security	84	3
CIS 270	Microsoft SQL	45	3
CIS 290	System Analysis and Design	45	3
CIS 299	Internship	240	4
	Total	459	16

• Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (*) can be transferred directly to the university system. Students should speak with an advisor before doing so.

Attachment C: DSU and LATC Course Mapping

A.A.S. Computer Information Systems Networking and Cyber Security and Software Development and Database Administration Options to B.S. Computer Information Systems

DSU 2025-2026 Catalog   LATC 2025-2026 Catalog

Mapped Course Number (DSU)	Mapped Course Title (DSU)	Credits (DSU)	Course Number (Articulated LATC)	Course Title (Articulated LATC)	Credits (LATC)	Net. Sec. option	Soft. Dev. option
CORE							
ACCT 210	Principles of Accounting I	3					
BADM 220	Business Statistics	3					
BADM 344	Managerial Communications	3	CIS 290	System Analysis and Design	3	X	X
BADM 350	Legal Environment of Business	3					
BADM 360	Organization and Management	3					
BADM 370	Marketing	3					
CIS 251	Business Applications Programming	3	CIS 133	Intro to C#	3		X
CIS 325	Management Information Systems	3					
CIS 332	Structured Systems Analysis and Design	3					
CIS 338	Project Management	3	CIS 171	Project Management with Agile and Scrum	3		X
CIS 427	Information Systems Planning and Management	3					
CIS 484	Database Management Systems	3	CIS 140	Database Design and SQL	3	X	X

CSC 105	Introduction to Computers	3	Waived			X	X
CSC 134	Intro to Cyber	3	CIS 215	Cybersecurity and Ethical Hacking	3	X	
CSC 150	Computer Science I	3	CIS 180	Intro to C++	3		X
CSC 163	Hardware, Virtualization, and Data Communication	3	CIS 115 and CIS 265	IT Essentials and Virtualization	3	X	
CSC 285	Networking I	3	NET 131	Networking II	4	X	
ECON 201	Principles of Microeconomics	3	ECON 201	Microeconomics	3	X (If taken)	X (If taken)
Choose 3 of the following							
CIS 206	Advanced Applications	1					
CIS 207	Advanced Applications: Spreadsheets	1					
CIS 208	Advanced Applications: Database	1					
CIS 210	QuickBooks I	1					
Choose 9 credits from the following *Indicates could be transferred alternatively as credit in a specialization but can only be used in one area.							
ACCT 211	Principles of Accounting II	3					
BADM 310	Business Finance	3					
BADM 321	Business Statistics II	3					
BADM 331	Financial Analytics	3					
BADM 425	Production & Operations Management	3					
BADM 435	Management Technology and Innovation	3					
BADM 460	Human Resource Management	3					
BADM 472	Marketing Technology	3					
*CIS 275	Web Application Programming I	3	CIS 221	Advanced JavaScript	1.5		X
CIS 330	COBOL I	3					
CIS 340	Java Programming	3	CIS 136	Java Essentials	3		X

CIS 368	Predictive Analysis	3					
*CIS 372	Programming for Analytics	3	CIS 244	Advanced Python	3		X
*CIS 375	Web Application Programming 2	3	CIS 272	Client Server Programming	3		X
CIS 384	Decision Support Systems	3					
CIS 424	Software Development w/Agile Methodologies	3					
CIS 438	Advanced Project Management	3					
CIS 474	Business Intelligence & Big Data	3					
*CIS 487	Database Programming	3	CIS270	Microsoft SQL	3		X
CIS 494	Internship	3	CIS 299	Internship	4	X	X
CIS 498	Research	3					
CSC 234	Software Security	3	CIS 255	Application Security	3		X
CSC 250	Computer Science II	3					
CSC 260	Object Oriented Design	3					
CSC 385	Networking II	3	NET 275	Advanced Networking I	4	X	
CSC 409	Operating Environments	3	CIS 260 and CIS 280	UNIX OS Administration and Windows Server Administration	4 3	X	
CSC 430	Windows Administration	3	CIS 285	System Administration	3	X	
CSC 431	UNIX/LINUX Administration	3					
CSC 451	Mobile Development Environments	3					
ECON 202	Principles of Macroeconomics	3					
MATH 201	Discrete Mathematics	3					
CHOOSE ONE SPECIALIZATION (18 credits) *Noted courses are mapped above*							
Business Analytics		18	*CIS 244* *CIS 270*				*X* *X* *(6)*
Project Management		18					

Application Development	18	*CIS 221* *CIS 272* *CIS 270*					*X* *X* *X* *(7.5)*
Health Informatics	18						
				Total Major Core		28-31	30-31.5 33-34.5
OPEN ELECTIVES (6 credits)							
						6	6
GENERAL EDUCATION (30 credits)							
ENGL 101	Composition I	3	ENGL 101	Composition	3	X	X
ENGL 201	Written Communication	3					
	Oral Communication	3	CMST 101	Fundamentals of Communication	3	X	X
	Social Science	3	PSYC 101 or SOC 100	General Psychology or Introduction to Sociology	3	X	X
	Social Science (HIST, CIV or POLS)	3					
	Arts and Humanities	3					
	Arts and Humanities	3					
	Mathematics	3	MATH 114	College Algebra	3	X	X
	Natural Sciences	3					
	Natural Sciences	3					
				Total General Education		12	12
						Net. Sec. option	**Soft. Dev. option**
				Total Mapped LATC Transfer Credits *(Variable of credits due to LATC gen. ed. course choices and B.S. specialization choice)*		**46-49**	**48-49.5 or 51-52.5**

Attachment D: Remaining DSU Requirements

DSU CIS: Application Development Specialization

LATC Software Development and Database Administration Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 427	Information Systems Planning and Management	3
CSC 134	Intro to Cyber	3
CSC 163	Hardware, Virtualization, and Data Communication	3
CSC 285	Networking I	3
*ECON 201	Principles of Microeconomics (If not taken at LATC)	3
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
Specialization Credits		
CIS 424	Software Development with Agile Methodologies	3
CSC 260	Object Oriented Design	3
CSC 376	Web Development Environments	3
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**63-66**

DSU CIS: Application Development Specialization

LATC Networking and Cybersecurity Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 251	Business Application Programming	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 338	Project Management	3
CIS 427	Information Systems Planning and Management	3
CSC 150	Computer Science I	3
ECON 201	*Principles of Microeconomics (If not taken at LATC)*	*3*
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
Specialization Credits		
CIS 275	Web Application Programming	3
CIS 375	Web Application Programming II	3
CIS 424	Software Development with Agile Methodologies	3
CIS 487	Database Programming	3
CSC 260	Object Oriented Design	3
CSC 376	Web Development Environments	3
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**75-78**

DSU CIS: Business Analytics Specialization

LATC Software Development and Database Administration Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 427	Information Systems Planning and Management	3
CSC 134	Intro to Cyber	3
CSC 163	Hardware, Virtualization, and Data Communication	3
CSC 285	Networking I	3
*ECON 201	Principles of Microeconomics (If not taken at LATC)	3
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
Specialization Credits		
BADM 321	Business Statistics II	3
BADM 425	Productions and Operations Mgmt	3
CIS 368	Predictive Analytics	3
CIS 474	Business Intelligence and Big Data	3
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**66-69**

DSU CIS: Business Analytics Specialization

LATC Networking and Cybersecurity Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 251	Business Application Programming	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 338	Project Management	3
CIS 427	Information Systems Planning and Management	3
CSC 150	Computer Science I	3
*ECON 201	Principles of Microeconomics (If not taken at LATC)	3
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
Specialization Credits		
BADM 321	Business Statistics II	3
BADM 425	Productions and Operations Mgmt	3
CIS 368	Predictive Analytics	3
CIS 372	Programming for Analytics	3
CIS 474	Business Intelligence and Big Data	3
CIS 487	Database Programming	3
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**72-75**

DSU CIS: Project Management or Health Informatics Specialization

LATC Software Development and Database Administration Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 427	Information Systems Planning and Management	3
CSC 134	Intro to Cyber	3
CSC 163	Hardware, Virtualization, and Data Communication	3
CSC 285	Networking I	3
*ECON 201	Principles of Microeconomics (If not taken at LATC)	3
Specialization Credits		18
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**72-75**

DSU CIS: Project Management or Health Informatics Specialization

LATC Networking and Cybersecurity Option

Course Number	Course Title	Credits
ACCT 210	Principles of Accounting I	3
BADM 220	Business Statistics	3
BADM 350	Legal Environment of Business	3
BADM 360	Organization and Management	3
BADM 370	Marketing	3
CIS 251	Business Application Programming	3
CIS 325	Management Information Systems	3
CIS 332	Structured Systems Analysis and Design	3
CIS 338	Project Management	3
CIS 427	Information Systems Planning and Management	3
CSC 150	Computer Science I	3
*ECON 201	Principles of Microeconomics (If not taken at LATC)	3
Choose three credits from the following		3
CIS 206	Advanced Applications (1 credit)	
CIS 207	Advanced Applications: Spreadsheets (1 credit)	
CIS 208	Advanced Applications: Database (1 credit)	
CIS 210	QuickBooks I (1 credit)	
Specialization Credits		18
General Education Credits		
	Written Communication	3
	Social Sciences (HIST, CIV or POLS)	3
	Arts and Humanities	6
	Natural Sciences	6
DSU Credits after LATC AAS Degree		**72-75**