

PROGRAM TO PROGRAM ARTICULATION AGREEMENT
with Respect to Applying the
COMPUTER INFORMATION SYSTEMS
Associate of Applied Sciences Degree Program
Towards the
NETWORK AND SECURITY ADMINISTRATION MAJOR
Bachelor of Science in Network and Security Administration 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 Network and Security Administration 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 50 credits from the LATC A.A.S. degree in Computer Information Systems Networking and Cybersecurity Option and 29 credits from the LATC A.A.S. degree in Computer Information Systems Software Development and Database Administration Option to the B.S. in Network and Security Administration major core requirements and general education.

- 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 Network and Security Administration degree with an earned A.A.S. in Computer Information Systems 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,

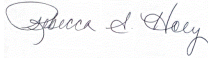
except in rare instances in which retroactive implementation of modifications may be required to comply with accreditation standards or to conform to professional licensure requirements.

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

DocuSigned by:

F8E7B870873741C...

Dr. Rebecca Hoey
Provost, Dakota State University

X

Signed by:

166D8F2635CD4F3...

Cameron Corey
Vice President, Lake Area Technical College

Attachment A: Lake Area Technical College Computer Information Systems Course Listing 2025-2026 Associate 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 |
| <ul style="list-style-type: none"> Selected Behavioral Science Course (Choose one) PSYC 100 – Psychology of Human Relations PSYC 101 – General Psychology * | | 45 | 3 |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> Selected Communications Course (Choose one) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) | | 45 | 3 |
| <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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. Network and Security Administration

DSU 2025-2026 Catalog

LATC 2025-2026 Catalog

| Course Number (DSU) | Course Title (DSU) | Credits (DSU) | Course Number (LATC) | Course Title (Articulated LATC) | Credits (LATC) | Net. Sec. plan | Soft. Dev. plan |
|---------------------|---|---------------|----------------------|--|----------------|----------------|-----------------|
| CORE | | | | | | | |
| CIS 484 | Database Management Systems | 3 | CIS 140 | Database Design and MySQL | 3 | X | X |
| CSC 105 | Introduction to Computers | 3 | Waived | | | X | X |
| CSC 134 | Introduction 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 Comm | 3 | CIS 115 and CIS 265 | IT Essentials and Virtualization | 3 | X | |
| CSC 234 | Software Security | 3 | CIS 255 | Application Security | 3 | | X |
| CSC 250 | Computer Science II | 3 | | | | | |
| CSC 285 | Networking I | 3 | NET 131 | Networking III | 4 | X | |
| CSC 321 | Cyber Law and Policy | 3 | | | | | |
| CSC 334 | Web Development | 3 | | | | | |
| CSC 385 | Networking II | 3 | NET 275 | Adv Networking I | 4 | X | |
| CSC 387 | Routing and Switching | 5 | | | | | |
| CSC 388 | Computer Forensics Fundamentals | 3 | | | | | |
| CSC 407 | Advanced Routing and Switching | 3 | | | | | |
| 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 436 | Offensive Network Security | 3 | | | | | |

| | | | | | | | |
|--------------------------------|--------------------------------------|----|---|---|----|----|----|
| CSC 437 | Survey of Enterprise Systems | 3 | | | | | |
| CSC 438 | Defensive Network Security | 3 | | | | | |
| CSC 439 | Threat Hunting and Incident Response | 3 | | | | | |
| CSC 443 | Scripting for Network Administration | 3 | | | | | |
| Choose one | | | | | | | |
| CSC 494 | Internship | 3 | CIS 299 | Internship | 4 | X | X |
| CSC 498 | Research | | | | | | |
| | | | | | | | |
| MATH 281 | Introduction to Statistics | 3 | | | | | |
| | | | | Total Major Core | | 34 | 13 |
| OPEN ELECTIVES (16 credits) | | | | | | | |
| | | 16 | | | 16 | X | X |
| | | | | Total Electives | | 16 | 16 |
| GENERAL EDUCATION (30 credits) | | | | | | | |
| ENGL 101 | Composition I | 3 | ENGL 101 | Composition | 3 | X | X |
| | Written Communication | 3 | | | | | |
| | Oral Communication | 3 | CMST 101 | Fundamentals of Communication | 3 | X | X |
| | Social Science | 3 | PSYC 101 or SOC 100 or ECON 201 | General Psychology or Introduction to Sociology or Principles of Microeconomics I | 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 |
| | | | | | | | |
| | | | | Total Overall Mapped LATC Transfer Credits | | 62 | 41 |

Attachment D: Remaining DSU Major Requirements**LATC Networking and Cybersecurity Option**

| Course Number | Course Title | Credits |
|--|--------------------------------------|----------------|
| | | |
| CSC 150 | Computer Science I | 3 |
| CSC 234 | Software Security | 3 |
| CSC 250 | Computer Science II | 3 |
| CSC 321 | Cyber Law and Policy | 3 |
| CSC 334 | Web Development | 3 |
| CSC 387 | Routing and Switching | 5 |
| CSC 388 | Computer Forensics Fundamentals | 3 |
| CSC 407 | Advanced Routing and Switching | 3 |
| CSC 431 | UNIX/Linux Administration | 3 |
| CSC 436 | Offensive Network Security | 3 |
| CSC 437 | Survey of Enterprise Systems | 3 |
| CSC 438 | Defensive Network Security | 3 |
| CSC 439 | Threat Hunting and Incident Response | 3 |
| CSC 443 | Scripting for Network Administration | 3 |
| MATH 281 | Introduction to Statistics | 3 |
| General Education Credits | | |
| | Written Communication | 3 |
| | Social Sciences | 3 |
| | Arts and Humanities | 6 |
| | Natural Sciences | 6 |
| DSU Credits after LATC AAS Degree | | 65 |

Software Development and Database Administration Option

| Course Number | Course Title | Credits |
|--|---|----------------|
| | | |
| CSC 134 | Introduction to Cyber | 3 |
| CSC 163 | Hardware, Virtualization, and Data Comm | 3 |
| CSC 250 | Computer Science II | 3 |
| CSC 285 | Networking I | 3 |
| CSC 321 | Cyber Law and Policy | 3 |
| CSC 334 | Web Development | 3 |
| CSC 385 | Networking II | 3 |
| CSC 387 | Routing and Switching | 5 |
| CSC 388 | Computer Forensics Fundamentals | 3 |
| CSC 407 | Advanced Routing and Switching | 3 |
| CSC 409 | Operating Environments | 3 |
| CSC 430 | Windows Administration | 3 |
| CSC 431 | UNIX/Linux Administration | 3 |
| CSC 436 | Offensive Network Security | 3 |
| CSC 437 | Survey of Enterprise Systems | 3 |
| CSC 438 | Defensive Network Security | 3 |
| CSC 439 | Threat Hunting and Incident Response | 3 |
| CSC 443 | Scripting for Network Administration | 3 |
| MATH 281 | Introduction to Statistics | 3 |
| General Education Credits | | |
| | Written Communication | 3 |
| | Social Sciences | 3 |
| | Arts and Humanities | 6 |
| | Natural Sciences | 6 |
| DSU Credits after LATC AAS Degree | | 77 |