# PROGRAM TO PROGRAM ARTICULATION AGREEMENT

Agreement with Respect to Applying the COMPUTER INFORMATION SYSTEMS (PROGRAMMING SPECIALIST OPTION)
Associate of Applied Sciences Degree Program
Towards the
COMPUTER SCIENCE MAJOR

**COMPUTER SCIENCE MAJOR Bachelor of Science Degree Program** 

Between
LAKE AREA TECHNICAL INSTITUTE
and
DAKOTA STATE UNIVERSITY

#### I. Parties

The parties to this agreement are Lake Area Technical Institute (LATI) 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 complementary nature of the institutions' programs;
- B. provide increased educational opportunities for students from South Dakota and the region;
- C. extend and clarify educational opportunities for students;
- D. provide LATI students who have completed the A.A.S. degree in Computer Information Systems (Programming Specialist Option) an opportunity to earn a Bachelor of Science degree with a major in Computer Science.

#### III. Academic Program

A. Upon successful completion of the major requirements specified in III.B below, Dakota State University will accept 12 technical course credits from the A.A.S. degree in Computer Information Systems (Programming Specialist Option) for students majoring in Computer Science. Students must successfully complete the A.A.S. degree in Computer Information Systems (Programming Specialist Option) from LATI prior to transferring to Dakota State University for the technical course credits to be accepted. General Education coursework is in addition to the 12 technical course credits. Furthermore, students may validate credit for any required course in the major using any of the validation methods accepted by Dakota State

- University. Students may not earn more than 32 semester hours of credit using these validation methods.
- B. Students must meet all Board of Regents policies and university graduation requirements in order to receive a degree.
- C. Requirements to be completed at Dakota State University to earn a Bachelor of Science degree with a major in Computer Science are outlined below.

## Major requirements: 45 credits

- CIS 332 Structured Systems Analysis and Design (3 credits)
- CIS 385 Networking II (3 credits)
- CIS 447 Artificial Intelligence (3 credits)
- CIS 484 Database Management Systems (3 credits)
- CSC 260 Object-Oriented Design (3 credits)
- CSC 300 Data Structures (3 credits)
- CSC 314 Assembly Language (3 credits)
- CSC 317 Computer Organization & Archit (3 credits)
- CSC 466 Language Processing (3 credits)
- CSC 456 Operating Systems (3 credits)
- CSC 461 Programming Languages (3 credits)
- CSC 470 Software Engineering (3 credits)
- CSC 372 Analysis of Algorithms (3 credits)
- Select 6 credits from the following: (6 credits)
- BADM 456 Cyberlaw
- CIS 275 Web Application Programming I
- CIS 340 Adv. Java Programming
- CIS 375 Web Application Programming II
- CIS 383 Networking I
- CIS 414 Computer Security Fundamentals
- CIS 416 Network Security
- CIS 418 Computer Security Intrusion Control and Detection
- CIS 422 Computer Security Cryptography & Info Assurance
- CIS 424 Internet and E-Commerce
- CIS 487 Database Programming
- CIS 488 Adv. Database Issues
- CIS 492 Topics
- CSC 403 Programming for GUI
- CSC 410 Parallel Computing
- CSC 433 Computer Graphics
- CSC 460 Scientific Visualizations
- CSC 492 Topics
- CSC 494 Internship
- CSC 498 Undergraduate Research/Scholarship

#### **Required Support Courses: 22 credits**

- ENGL 208 Documentation & Presentation (3 credits)
- MATH 123 Calculus I (4 credits)
- MATH 281 Intro to Statistics

or

MATH 381 Intro to Probability & Statistics (3 credits)

MATH 316 Discrete Mathematics (3 credits)

MATH electives (9 credits)

{MATH 125, MATH 201, MATH 315, MATH/CSC 318, MATH 321, MATH 381, MATH 413, MATH 418, MATH 471, MATH 475, MATH 492}

#### General Education/Institutional Graduation Requirement Courses: 41 credits

- 1. Must **NOT** include CSC 150 Computer Science I
- 2. Must include SOC 285 Principles of Microeconomics (3 credits)
- 3. The remaining 38 credits must meet system general education requirements, in addition to institutional graduation requirements, globalization requirements and writing intensive requirements, and must be selected from the approved list of courses specified in BOR Policy 2:7.
- 4. To fulfill the system general education requirements, all students must pass the System Information Literacy Examination. Students must sit for the exam during the semester in which they have completed 48 passed credit hours and must have completed a specified 18 credit hours of general education courses during the first two semesters of attendance at DSU.

#### **Electives: 8 credits**

Total number of credits at Dakota State University: 116

Transfer credits from LATI: 12\*

Total credits required: 128

## Additional requirements:

1. In accordance with BOR policy 2:28, students must demonstrate satisfactory performance in writing, mathematics, reading and science reasoning as evidenced by receiving a passing score on all sections of the Collegiate Assessment of Academic Proficiency (CAAP) exam. In accordance with the Regental policy, students must sit for the exam during the semester in which they have completed 48 passed credit hours and must have completed a specified 18 credit hours of general education courses during the first two semesters of attendance at DSU.

# IV. Obligations

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

<sup>\*</sup>Transferable general education course credits can be completed at LATI.

#### V. Modification

This agreement may be modified from time to time by the South Dakota Board of Regents and Lake Area Technical Institute 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. Incorporation of terms in master agreement.

The parties have entered into the present agreement pursuant to the agreement of December 14, 2004 between the Watertown Board of Education on behalf of Lake Area Technical Institute and the South Dakota Board of Regents on behalf of Black Hills State University, Dakota State University, Northern State University, the South Dakota School of Mines and Technology, South Dakota State University and the University of South Dakota. This agreement shall be subject to all terms and conditions stated in the December 14, 2004 agreement.

VII. Effective Date of Agreement: Start Date of the Fall 2005 Term at LATI and DSU. The agreement applies to students who graduated from LATI in 2000 and subsequent years.

## VIII. Acceptance of Agreement:

For Dakota State University:	
Im Halve	Date: 9/28/2005
Dr. Tom Halverson	
Dean, College of Business and Information Systems	,
C. Statmayen	Date: 9/38/05
Dr. Cecelia Wittmayer	
Provost & Vice President for Academic Affairs	
Mongles Al	Date: 9/29/05
Dr. Douglas Knowlton	// //
President, Dakota State University	
	Date: (3-10-0)
Dr. Robert T. Tad Perry	
Executive Director South Dakota Roard of Regents	

Mr. Harvey Jewett President, South Dakota Board of Regents	5 _Date: <u>/ 0// 7/05</u>
For Lake Area Technical Institute:	
Mr. Don Armstrong	_ Date: <u>  \21/05</u>
Chair	
Dr. Gary Williams	_ Date: 10 26-05
Dr. Gary Williams Director, Lake Area Technical Institute	
( L. A. W.)	Date: 12 -14 -05
Dr. Bob Mayer	Date: //-
Superintendent, Watertown Public School District	
/ hlm	_ Date: 12/27/05
Dr. Rick Melmer	
Secretary, South Dakota Department of Education	1/-1
Dlenna Forberg	Date:
Mrs. Glenna Fouberg President, South Dakota Board of Education	
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