

PROGRAM TO PROGRAM ARTICULATION AGREEMENT

Between the
NATIONAL CRYPTOLOGIC SCHOOL
of the
NATIONAL SECURITY AGENCY

and

DAKOTA STATE UNIVERSITY

Agreement with Respect to Applying to the

Master of Science in

COMPUTER SCIENCE

With a Specialization in CYBER OPERATIONS

I. Parties

The parties to this agreement are the National Cryptologic School (NCS) of the National Security Agency (NSA) and Dakota State University (DSU).

II. Purpose

The purpose of this document is to:

1. Establish a signed articulation agreement that addresses the individual needs of the students of the NCS;
2. Recognize the complementary nature of the NSA and DSU's Master of Science in Computer Science degree with a specialization in Cyber Operations program;
3. Provide students who have completed certain NSA-sponsored coursework an opportunity to more efficiently earn the DSU Master of Science degree in Computer Science with a specialization in Cyber Operations.

III. Academic Program

- A. Requirements to be completed toward the DSU Master of Science degree in Computer Science with specialization in Cyber Operations are outlined in Appendix A.
- B. Students must meet all Board of Regents policies and university requirements for admission to the graduate program including any knowledge support requirements as well as all graduation requirements including the exit exam requirements.

Additional requirements:

1. The DSU Master of Science degree in Computer Science with specialization in Cyber Operations requires the completion of at least thirty (30) hours of course work distributed among required core courses and specialization courses.
2. Three (3) graduate credits will be awarded for each eighty (80) contact hours of NSA-sponsored coursework, not to exceed twelve (12) credit hours for any given course or combination of courses. No more than ten (10) years may have passed since completion of the training used as a basis for course equivalency. Training that is older than 10 years may be approved by the DSU program coordinator if sufficient currency can be shown to have been maintained in the area by the applicant.
3. Students will complete the remaining eighteen (18) credit hours toward completion of the DSU Master of Science in Computer Science with specialization in Cyber Operations program through on-line course delivery.
4. Students will complete the normal application process through the DSU Graduate Programs Office with the following exceptions that no Letters of Recommendation will be required. Receipt of the Joint Services transcript or the National Cryptologic Students will provide official transcripts from other accredited graduate institutions as well as providing official documentation of applicable coursework from the NCS, which will be reviewed in accordance with the parameters specified in Appendix A.
5. Students admitted to DSU will be charged tuition and applicable fees based on their state of residency for the duration of their enrollment.
6. DSU will maintain metrics on NCS students, to include GPA, plan of study, and overall academic progress.

IV. Obligations

Both parties agree to confer with each other on a yearly basis regarding changes in curricula involved in this articulation agreement. Faculty and staff at both institutions will share information on this agreement with interested and qualified students. Both institutions will provide counseling and advising to students and prospective students.

V. Modification

This agreement may be modified from time to time by the South Dakota Board of Regents and the NCS. 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: Initial start date of Fall 2015 term at the NCS and DSU. **Updated January 2020**

VII. Acceptance of Agreement:

For Dakota State University

_____ Date: _____

Dr. Jim Moran
Provost/Vice President for Academic Affairs

_____ Date: _____

Dr. Mark Hawkes
Dean for Graduate Studies & Research

_____ Date: _____

Dr. Stephen Krebsbach
Program Coordinator, Masters of Computer Science

For National Security Agency:

_____ Date: _____

Ms. Diane Janosek
Commandant, National Cryptologic School

Appendix A

I. The DSU Masters in Applied Computer Science with specialization in Cyber Operations program requirements are as follows:

A. Core classes:

CSC 705 Design of Analysis and Algorithms	3 credits
CSC 710 Structure and Design of Programming Languages	3 credits
CSC 718 Operating Systems and Parallel Programming	3 credits
CSC 720 Theory of Computation	3 credits
CSC 722 Machine Learning Fundamental	3 credits

B. Cyber Operations specialization courses:

CSC 723 Machine Learning for Cyber Security	3 credits
CSC 748 Software Exploitation	3 credits
CSC 773 Mobile Communication & Advanced Network Security	3 credits
CSC 786 Cyber Problems	3 credits
INFA 723 Cryptography	3 credits

II. The following courses must be taken through DSU:

- A. The five (5) core classes listed in Item IA, together totaling fifteen (15) credits;
and
- B. One (1) of the Cyber Operations specialization courses listed in Item IB.

III. The remaining twelve (12) credits may be earned through the articulation agreement between DSU and NCS as approved. DSU offers students of the NCS a flexible approach to allow them to apply specific work-related training, as defined in this document, toward completion of the Masters in Computer Science with specialization in Cyber Operations degree:

- A. Twelve (12) graduate credit hours will be granted to enrollees who have completed the NCS programs CYBR3420 or CYBR3422 and not previously obtained credit as part of an undergraduate degree program.

B. Credit for other NCS-sponsored coursework will be granted on a per-course basis within the parameters of this articulation agreement to:

1. Enrollees who have not completed CYBR3420 or CYBER3422 programs; and
2. Enrollees who have completed CYBR3420 or CYBER3422 programs but have already applied the credits toward an undergraduate degree.

Three (3) graduate credit hours may be granted for no less than eighty (80) hours of aggregate NCS contact hours which map into the relevant content of one of the five (5) required Cyber Operations Specialization courses. No more than twelve (6) credit hours can be granted. Mapping will be done on a case-by-case bases.