ACADEMIC AFFAIRS COUNCIL

AGENDA ITEM: 6 – E (2)

DATE: March 31, 2016

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SUBJECT: Articulation Agreements – DSU

Board of Regents Policy 2:27 Program to Program Articulation Agreements establishes requirements for institutions seeking to develop program level agreements for interested transfer students. The policy further establishes the distinction between AA, AS, and AAS degrees which are classified as transferable, terminal, or non-transferable degrees (respectively). However, the AS is "transferable when a specific degree articulation agreement exists between a given A.S. degree and a specific Baccalaureate degree." Agreements established with regionally accredited institutions must be developed in conjunction with the faculty, following all institutional guidelines and are monitored as a function of the institutional program review process. Once approved, the agreements apply only at Regental institutions with equivalent programs. To comply with BOR Policy 2:27, Dakota State University requests approval for the following articulation agreement:

- Students who have completed certain NSA-sponsored coursework at the National Cryptologic School (NCS) of the National Security Agency (NSA) can apply credit toward the Master of Science in Applied Computer Science with a specialization in Cyber Operations degree program at DSU (Attachment I).

Once finalized, BOR policy further establishes that all agreements must be reviewed by the Academic Affairs Council (AAC) with a recommendation forwarded to the Board of Regents.

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RECOMMENDED ACTION

Approve the articulation agreement between Dakota State University and the National Cryptologic School of the National Security Agency. Forward to BOR.

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

APPLIED COMPUTER SCIENCE

With a Specialization in CYBER OPERATIONS

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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 DSU Master of Science in Applied 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 Applied Computer Science with a specialization in Cyber Operations.

III.   Academic Program

A. Requirements to be completed toward the DSU Master of Science degree in Applied 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 Applied 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.

3. Students will complete the remaining eighteen (18) credit hours toward completion of the DSU Master of Science in Applied 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 providing 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:** Start date of <mark>Summer</mark> 2016 terms at the NCS and DSU.

VII. **Acceptance of Agreement:**

For Dakota State University

_____Date: _____

Dr. Judith Dittman
Vice President for Academic Affairs

_____Date: _____

Dr. Christopher Olson
Chair, Department of Computer Science

_____Date: _____

Dr. Stephen Krebsbach
Program Coordinator, Masters of Applied Computer Science

For National Security Agency:

_____Date: _____

Dr. Leonard T. Reinsfelder
Commandant, National Cryptologic School

_____Date: _____

Mrs. Monica Johnson
Registrar, 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 714 Database Systems	3	credits
CSC 718 Operating Systems and Parallel Programming	3	credits
CSC 720 Theory of Computation	3 credits	

    B. Cyber   Operations   specialization   courses:

CSC 716 Secure Software Engineering	3	credits
CSC 748 Software Exploitation	3	credits
INFA 723 Cryptography	3	credits
INFA 751 Wireless Security	3	credits
Elective	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 or elective 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 Applied Computer Science with specialization in Cyber Operations degree:

    A. Twelve (12) graduate credit hours will be granted to enrollees who have completed the Remote Interactive Operator Training (RIOT) program 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 RIOT program; and

2. Enrollees who have completed the RIOT program but have already applied the credits toward an undergraduate degree.

C. DSU will grant three (3) graduate credit hours for every eighty (80) NCS contact hours, not to exceed a total of twelve (12) graduate credit hours for specific NCS courses completed within the last ten years as defined in this document. The DSU Masters in Applied Computer Science with specialization in Cyber Operations requires that a minimum of three (3) graduate credits be taken in each of the five (5) categories that map to the DSU courses below:

1. To earn credit for CSC 716, a minimum of eighty (80) aggregate contact hours must be completed from the following list:

Course	Hours		
CYBR3300	24		hours
CYBR3400	16		hours
CYBR3500	16		hours
CYBR3600	24		hours
CYBR3700	16		hours
MATH4330	48 hours	(formerly MA460)	
COMP1022	1 hour	(formerly	NETO3005)
COMP1023	4 hours	(formerly	NETO3006)
CYBR2103	32 hours	(formerly	NETO4003)
CYBR2106	36 hours	(formerly	NETO4006)

2. To earn credit for CSC 748, a minimum of eighty (80) aggregate hours must be completed from the following list:

Course	Hours		
ATNO3271	8		hours
ATNO4271	8		hours
ATNO4273	80 hours	(formerly ET273)	
ATNO4275	80		hours
CYBR2400	240		hours
CYBR3000	40		hours
CYBR3100	40		hours
CYBR3810	40		hours
CYBR4200	40		hours
CYBR4210	40		hours
CYBR4500	40 hours		
COMP3500	80 hours		
COMP3510	80 hours		

3. To earn credit for INFA 723, a minimum of eighty (80) aggregate hours must be completed from the following list:

Course	Hours		
CRYP2650	80 hours	(formerly	CA252)
CRYP2700	60		hours
CRYP3131	80		hours

CRYP3132	80	hours
CRYP3133	40	hours
CRYP3180	160	hours
CRYP3190	120	hours
ATNO4253	40	hours
IAEC1120	8 hours	(formerly ND120)
IAEC2300	2 hours	
IAEC3285	40 hours	(formerly ND285)
IAEC4310	40 hours	(formerly ND310)
MATH3140	200 hours	(formerly MA248)
CYBR2102	32 hours	(formerly NETO4002)
NETW1100	424	hours
NETW4001	40	hours
NETW4211	40 hours	
NETW4220	40 hours	

4. To earn credit for INFA 751, a minimum of eighty (80) aggregate hours or three (3) credits must be completed from the following list:

NPGS4745EC	3	credits
NPGS4770EC	3	credits
CYBR1030	40 hours	
CYBR1330	32	hours
CYBR2102	32	hours
CYBR2400	240	hours
CYBR2450	520	hours
CYBR3015	40	hours
NETA2016	4	hours
NETA3001	240 hours	(formerly NEX01)
NETW1007	8	hours
NETW1051	48	hours
NETW1052	40	hours
NETW2053	40	hours
NETW3007	32	hours
NETW3008	40 hours	(formerly TD2M5)
NETW3009	24 hours	(formerly TD2B1)
NETW3010	40	hours
NETW3100	40	hours
NETW3101	72	hours
NETW3455	32	hours
NETW4211	40	hours
NETW4220	40 hours	
NETW4257	32 hours	
NETW4259	40 hours	
SIGC3803MH	160 hours	

5. To earn credit for 3 elective credits (recorded as CSC 700T), a minimum of eighty (80) aggregate hours or three (3) credits must be completed from the

lists above, excluding any courses applied toward the basic requirements. Alternatively, students may choose a three credit elective from the list of approved electives in the Applied Computer Science program.