SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

Minor Program Modification

Use this form to request minor changes in existing programs (majors, minors, certificates, or specializations). The university Vice President for Academic Affairs approves minor program modifications and they are included in the Annual Minor Program Modification Summary form.

UNIVERSITY:	DSU
PROGRAM TITLE:	**DSc. in Cyber Security**
CIP CODE:	
UNIVERSITY DEPARTMENT:	
UNIVERSITY DIVISION:	**College of Computing**

University Approval

To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.

	Click here to enter a date.
Vice President of Academic Affairs or President of the University	Date

1. **This modification addresses a change in (*place an "X" in the appropriate box*):**

   ☒ Course *deletions* that do not change the nature of the program, or distribution of courses in the program, or change of total credit hours required

   ☒ Course *additions* that do not change the nature of the program, or distribution of courses in the program, or change of total credit hours required

   ☐ Revised courses in the program.

2. **Effective date of change: 5/10/2017**

3. **Program Degree Level (*place an "X" in the appropriate box*):**

   Associate ☐   Bachelor's ☐   Master's ☐   Doctoral ☒

4. **Category (*place an "X" in the appropriate box*):**

   Certificate ☐   Specialization ☐   Minor ☐   Major ☒

5. Primary Aspects of the Modification (*add lines or adjust cell size as needed*):

Existing Curriculum — *Proposed Curriculum (==highlight changes==)*

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
Cyber Security Core			**15**	**Cyber Security Core**			**15**
CSC	840	Full Scope Security Testing	3	CSC	840	**Cyber Operations I**	3
				CSC	**841**	**Cyber Operations II**	**3**
~~CSC~~	~~842~~	~~Security Tool Development~~	~~3~~				
CSC	844	Adv. Reverse Engineering	3	CSC	844	Adv. Reverse Engineering	3
CSC	846	Adv. Malware Analysis	3	CSC	846	Adv. Malware Analysis	3
CSC	848	Adv. Software Exploitation	3	CSC	848	Adv. Software Exploitation	3
Cyber Security Research			**9**	**Cyber Security Research**			**9**
CSC	803	An Into to Cyber Security Research	3	CSC	803	An Into to Cyber Security Research	3
				CSC	**804**	**Cyber Security Research Methodologies**	**3**
CSC	807	Cyber Security Research	3	CSC	807	Cyber Security Research	3
~~INFS~~	~~805~~	~~Design Research Methods~~	~~3~~				
On-site Research Seminar			**3**	**On-site Research Seminar**			**3**
CSC	890	Seminar (1 credit each)		CSC	890	Seminar (1 credit each)	
Dissertation			**25**	**Dissertation**			**25**
CSC	809	Dissertation Preparation	3	CSC	809	Dissertation Preparation	3
CSC	898D	Dissertation (1-22)	22	CSC	898D	Dissertation (1-22)	22
Electives			**9**	**Electives**			9
				Any 700 or 800 level course offering with a CSC, INFA or INFS prefix			
~~CSC~~	~~705~~	~~Design & Analysis of Algorithms~~	~~3~~				
~~CSC~~	~~710~~	~~Structure and Design Programming Languages~~	~~3~~				
~~CSC~~	~~714~~	~~Database Systems~~	~~3~~				
~~CSC~~	~~716~~	~~Secure Software Engineering~~	~~3~~				
~~CSC~~	~~718~~	~~Operating Systems & Parallel Programming~~	~~3~~				
~~CSC~~	~~720~~	~~Theory of Computation~~	~~3~~				
~~CSC~~	~~748~~	~~Software Exploitation~~	~~3~~				
~~CSC~~	~~791~~	~~Independent Study~~	~~3~~				
~~INFA~~	~~719~~	~~Software Security~~	~~3~~				
~~INFA~~	~~723~~	~~Cryptography~~	~~3~~				
~~INFA~~	~~735~~	~~Offensive Security~~	~~3~~				
~~INFA~~	~~751~~	~~Wireless Security~~	~~3~~				
		Total Hours Required	61			Total Hours Required	61

6. **Explanation of the Change:** Minor changes are being suggested in three (3) areas of the curriculum of the DSc. In Cyber Security. It is our intent to apply for Cyber Operations designation for this program to the NSA. These modifications in the Cyber Security core strengthen the core curriculum by increasing the coverage on the NSA/DHS Knowledge units. CSC 840 is being renamed, CSC 842 is becoming an elective, and a new class, CSC 841 will be created. In the Cyber Security Research section, the INFS 805 class becomes an elective for

those students who want to study in depth regarding the Design Science methodology. The new class, CSC 804, will focus on three methodologies, namely: Qualitative, Quantitative, and Design Science. Lastly, simply the elective course list to 700/800 level prefixes of CSC, INFA, and INFS.