Appendix D

Course Requirements for
Computer Science with a Specialization in Cyber Operations
Master of Science (30 Credits)

1. The DSU Master of Science degree in Computer Science with a 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.
3. No more than ten (10) years have passed since completion of the course to be recorded. 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.
4. Students will complete the remaining eighteen (18) credit hours toward completion of the degree through online course delivery.
5. Letters of recommendation will not be required in the application process.
6. Four (4) of the core courses must be taken through DSU, plus CSC 718 and CSC 723 in the Cyber Specialization courses, totaling eighteen (18) credits
7. The remaining twelve (12) credits may be earned through the articulation agreement between DSU and NCU, offering students a flexible approach to allow them to apply specific work-related training, as defined in this document.
    a. Twelve (12) graduate credit hours will be granted to enrollees who have completed CYBR3420 or CYBR3422 and have not previously obtained credit as part of an undergraduate degree program. Three credits (3) credits for CSC 786 Cyber Problems * in the Core and nine (9) credits of courses in the Cyber Operations Specialization. *.
    b. For other NCU-sponsored coursework, coursework will be granted on a per-course basis within the parameters of this agreement to 1) enrollees who have not completed CYBR3420 or CYBR3422 and 2) enrollees who have completed CYBR3420 and CYBR3422 programs but have already applied the credits towards an undergraduate degree. (*See Per-course Credit Table below*)

DSU COURSE NUMBER, TITLE and NUMBER of CREDITS			**NCU COURSE NUMBER, TITLE and NUMBER of CREDITS**		
Core Classes		**15**			
CSC 705	Design and Analysis of Algorithms	3			
CSC 712	Data Structures	3			
CSC 720	Theory of Computation	3			
CSC 722	Machine Learning Fundamentals	3			
CSC 786	Cyber Problems *	3			
Cyber Operations Specialization Courses		**15**			
CSC 718	Operating Systems and Parallel Programming	3			
CSC 723	Machine Learning for Cyber Security	3			
CSC 748	Software Exploitation *	3			
CSC 773	Mobile Communication and Advanced Network Security *	3			
INFA 723	Cryptography *	3			
	Total Program Credits	**30**			
			NCU COURSE NUMBER, TITLE and NUMBER of CREDITS		
	Per-course Credit Table		Course Code	Hours	Transfer Credits

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CSC748	Software Exploitation	3	ATNO3271 ATNO4271 ATNO4273 ATNO4275 CYBR2400 CYBR3000 CYBR3100 CYBR3810 CYBR4200 CYBR4210 CYBR4500 COMP3500 COMP3510	8 Hours 8 Hours 80 Hours 80 Hours 240 Hours 40 Hours 40 Hours 40 Hours 40 Hours 40 Hours 40 Hours 80 Hours 80 Hours	80 Aggregate Contact Hours must be completed to receive 3 Credits
INFA723	Cryptography	3	CRYP2650 CRYP2700 CRYP3131 CRYP3132 CRYP3133 CRYP3180 CRYP3190 ATNO4253 IAEC1120 IAEC2300 IAEC3285 IAEC4310 MATH3140 CYBR2102 NETW1100 NETW4001 NETW4211 NETW4220	80 Hours 60 Hours 80 Hours 80 Hours 40 Hours 160 Hours 120 Hours 40 Hours 8 Hours 2 Hours 40 Hours 40 Hours 200 Hours 32 Hours 424 Hours 40 Hours 40 Hours 40 Hours	80 Aggregate Contact Hours must be completed to receive 3 Credits
CSC733	Mobile Communication and Advanced Network Security	3	NPGS4745EC NPGS4770EC CYBR1030 CYBR1330 CYBR2102 CYBR2400 CYBR2450 CYBR3015 NETA2016 NETA3001 NETW1007 NETW1051 NETW1052 NETW2053 NETW3007 NETW3008 NETW3009 NETW3010 NETW3100 NETW3101 NETW3455 NETW4211 NETW4220 NETW4257 NETW4259 SIGC3803	3 Credits 3 Credits 40 Hours 32 Hours 32 Hours 240 Hours 520 Hours 40 Hours 4 Hours 240 Hours 8 Hours 48 Hours 40 Hours 40 Hours 32 Hours 40 Hours 24 Hours 40 Hours 40 Hours 72 Hours 32 Hours 40 Hours 40 Hours 32 Hours 40 Hours 160 Hours	80 Aggregate Contact Hours must be completed to receive 3 Credits
		3			80 Aggregate Contact Hours must be completed to receive 3 Credits
	Total Program Credits	**30**			
Evaluator		**Date**			

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1.		
2.		
3.		
Student's First Name	**Initials**	
Student's Last Name		