

| <b>UNDERGRADUATE</b> |                                           |                    |                   |                 |                |
|----------------------|-------------------------------------------|--------------------|-------------------|-----------------|----------------|
| <b>NCS Course</b>    | <b>NCS Course Description</b>             | <b>UMGC Course</b> | <b>Begin Date</b> | <b>End Date</b> | <b>Credits</b> |
| NNCS 14              | Antenna Fundamentals                      | VTCH 100TR         | 1/1/00            | 3/31/10         | 2              |
| NNCS 18              | Architectures for Secure Systems          | CMSC 316TR         | 1/1/04            | 5/1/09          | 2              |
| NNCS 18              | Architectures for Secure Systems          | CMSC 316TR         | 7/1/89            | 12/31/03        | 1              |
| NNCS 46              | Basic SIGINT Technology (TSSI)            | VTCH 100TR         | 5/1/95            | 3/31/10         | 3              |
| NNCS 62              | Combinatorial Mathematics                 | MATH 316TR         | 1/1/75            | 6/30/10         | 3              |
| NNCS 65              | Computer Protection                       | CMSC 116TR         | 4/30/99           | 10/1/02         | 3              |
| NNCS 65              | Computer Protection                       | CMSC 316TR         | 3/1/91            | 8/31/96         | 3              |
| NNCS 65              | Computer Protection                       | CMSC 116TR         | 7/1/85            | 2/28/91         | 2              |
| NNCS 81              | Distributed Java Programming              | CMIS 316TR         | 4/1/98            | 5/13/08         | 2              |
| NNCS 89              | Fourier Analysis                          | CMSC 316TR         | 1/1/75            | 7/31/90         | 3              |
| NNCS 92              | Fundamentals of Digital Signal Processing | CMSC 316TR         | 9/1/96            | 12/1/02         | 2              |
| NNCS 93              | Fundamentals of Radio Wave Propagation    | VTCH 100TR         | 5/1/95            | 7/2/03          | 1              |
| NNCS 94              | Fundamentals of Relational Data           | CMSC 316TR         | 1/1/00            | 3/31/10         | 2              |
| NNCS 94              | Fundamentals of Relational Data           | CMSC 316TR         | 2/1/91            | 12/31/99        | 2              |
| NNCS 95              | Fundamentals of Spread Spectrum           | VTCH 100TR         | 9/1/81            | 3/6/03          | 1              |
| NNCS 97              | General Programming Techniques            | CMSC 316PR         | 6/1/74            | 4/21/03         | 3              |
| NNCS 103             | IBM Assembly Language Programming         | CMSC 116PR         | 7/1/74            | 6/1/88          | 3              |
| NNCS 114             | Intermediate Algebra                      | VTCH 100TR         | 1/1/16            | 12/31/18        | 3              |
| NNCS 114             | Intermediate Algebra                      | MATH 107           | 6/1/83            | 6/23/10         | 3              |
| NNCS 142             | Introduction to Artificial Intelligence   | CMSC 116TR         | 1/1/91            | 4/1/95          | 2              |
| NNCS 144             | Intro to C Programming                    | CMIS 102           | 1/1/90            | 3/31/10         | 3              |
| NNCS 144             | Intro to C Programming                    | CMSC 116TR         | 6/1/66            | 12/31/89        | 2              |
| NNCS 170             | Management Courses                        | ELEC 300TR         | 4/1/86            | 7/31/91         | 6              |
| NNCS 180             | Modern Computer Architecture              | CMIS 310           | 4/1/91            | 4/21/03         | 3              |
| NNCS 183             | Multiplexing Technology                   | CMIT 316TR         | 12/1/97           | 10/1/01         | 3              |
| NNCS 183             | Multiplexing Technology                   | VTCH 100TR         | 9/1/96            | 11/30/97        | 2              |
| NNCS 183             | Multiplexing Technology                   | VTCH 100TR         | 1/1/81            | 8/31/96         | 1              |
| NNCS 186             | Network Technology (TSSI)                 | CMIT 300-265       | 12/1/88           | 4/21/03         | 3              |

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|-----------------|--------------------------------------------------|--------------|---------|----------|---|
| NNCS 187        | Network Technology Workshop                      | CMIT 116TR   | 8/1/96  | 7/10/08  | 3 |
| NNCS 191        | Operating System Security Concepts               | CMSC 116TR   | 1/1/96  | 4/11/02  | 1 |
| NNCS 191        | Operating System Security Concepts               | CMSC 316TR   | 2/1/89  | 12/31/95 | 1 |
| NNCS 192        | Operation Info Assurance                         | CSIA 116TR   | 1/1/99  | 6/19/09  | 1 |
| NNCS 196        | Parallel Processing Architecture and Programming | CMSC 316TR   | 7/1/91  | 3/1/95   | 2 |
| NNCS 197        | PDP-11 Programming                               | CMSC 116PR   | 11/1/73 | 4/30/76  | 3 |
| NNCS 197        | PDP-11 Programming                               | CMSC 116PR   | 5/1/77  | 6/30/86  | 3 |
| NNCS 198        | Perl Programming                                 | CMSC 116TR   | 5/1/95  | 6/30/10  | 2 |
| NNCS 199        | PL/1 Programming                                 | CMSC 116PR   | 10/1/69 | 4/1/95   | 3 |
| NNCS 200        | Portuguese for Spanish Linguists                 | PORT 116TR   | 7/1/84  | 10/1/87  | 4 |
| NNCS 201        | Probability and Statistics                       | STAT 200     | 1/1/00  | 11/13/02 | 3 |
| NNCS 201        | Probability and Statistics                       | STAT 116TR   | 9/1/94  | 12/31/99 | 2 |
| NNCS 201        | Probability and Statistics                       | STAT 200     | 7/1/76  | 8/31/94  | 3 |
| NNCS 204        | Programming in X                                 | CMSC 116PR   | 11/1/00 | 10/31/04 | 3 |
| NNCS 204        | Programming in X                                 | CMSC 116PR   | 9/1/90  | 12/31/99 | 2 |
| NNCS 205        | Programming Language Logic and Automated Proofs  | CMSC 316TR   | 9/1/90  | 1/1/92   | 3 |
| NNCS 206        | Programming with Java Swing Classes              | CMSC 116PR   | 9/1/99  | 5/13/08  | 1 |
| NNCS 417        | CISCO Router Configuration                       | CMIT 116TR   | 8/1/03  | 3/31/10  | 1 |
| NNCS 431        | DDM-2000 OC-3/OC-12 Multiplexer Maintenance      | CMTR 116TR   | 5/1/95  | 6/29/05  | 2 |
| NNCS 536        | Overview of Russian Phonology and Morphology     | RUSS 116TR   | 4/1/06  | 4/30/10  | 2 |
| NNCS 571        | Basic Critical Thinking & Structure              | ELEC 100TR   | 12/1/07 | 9/30/11  | 1 |
| NNCS 572        | Critical Thinking & Structural Analysis          | ELEC 100TR   | 12/1/07 | 9/30/11  | 1 |
| NNCS 576        | Project Management Boot Camp                     | IFSM 438     | 1/1/16  | 12/31/18 | 3 |
| NNCS 576        | Project Management Boot Camp                     | IFSM 316TR   | 10/1/07 | 12/31/15 | 2 |
| NNCS 654        | Building Business Management Skills              | BMGT 316TR   | 1/1/13  | 12/31/15 | 2 |
| NV 1402-0296 v1 | JCAC (Joint Cyber Analysis)                      |              | 10/1/09 | 12/1/15  |   |
|                 |                                                  | CMIS 100-325 |         |          | 3 |
|                 |                                                  | CMIS 100-315 |         |          | 3 |
|                 |                                                  | CMIS 102     |         |          | 3 |

|                 |                                                  |              |        |          |   |
|-----------------|--------------------------------------------------|--------------|--------|----------|---|
|                 |                                                  | CMIT 100-350 |        |          | 3 |
|                 |                                                  | CSIA 100-301 |        |          | 3 |
|                 |                                                  | CMIT 202     |        |          | 3 |
|                 |                                                  | CMIT 265     |        |          | 3 |
|                 |                                                  | CSIA 316TR   |        |          | 3 |
| NV 1402-0296 v2 | JCAC (Joint Cyber Analysis)                      |              | 1/1/16 | Present  |   |
|                 |                                                  | CMIT 100-424 |        |          | 3 |
|                 |                                                  | CMIT 100-321 |        |          | 3 |
|                 |                                                  | CMSC 116TR   |        |          | 3 |
|                 |                                                  | CMIT 202     |        |          | 3 |
|                 |                                                  | CMIS 102     |        |          | 3 |
|                 |                                                  | CMIT 265     |        |          | 3 |
|                 |                                                  | CMIT 100-350 |        |          | 3 |
|                 |                                                  | CSIA 301     |        |          | 3 |
|                 |                                                  | CMIT 316TR   |        |          | 3 |
|                 |                                                  | SDEV 316TR   |        |          | 3 |
| CYBR 3410       | Intermediate Cybercore                           | CMIT 116TR   | 1/1/16 | 12/31/18 | 3 |
| CYBR 3422       | Computer Network Operations Qualification Course | CMIT 320     | 5/1/17 | 4/30/20  | 3 |
|                 |                                                  | CMIT 300-265 | 5/1/17 | 4/30/20  | 3 |
|                 |                                                  | CMIT 316TR   | 5/1/17 | 4/30/20  | 3 |
|                 |                                                  | CMIT 321     | 5/1/17 | 4/30/20  | 3 |
|                 |                                                  | CMIT 316TR   | 5/1/17 | 4/30/20  | 3 |
| CYBR 3422       | Computer Network Operations Qualification Course | CMIT 320     | 5/1/16 | 4/30/17  | 3 |
|                 |                                                  | CMIT 321     | 5/1/16 | 4/30/17  | 3 |
|                 |                                                  | CMIT 316TR   | 5/1/16 | 4/30/17  | 3 |
| CYBR 3420       | ROC Foundations Training                         | CMIT 116TR   | 1/1/16 | 4/30/16  | 3 |
| CYBR 3420       | ROC Foundations Training                         | CMIT 300-265 | 1/1/13 | 12/31/15 | 3 |
|                 |                                                  | CMIT 316TR   | 1/1/13 | 12/31/15 | 3 |
|                 |                                                  | CMIT 320     | 1/1/13 | 12/31/15 | 3 |

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|-------------|--------------------------------------------------------|--------------|---------|----------|-----------|
| MATH 1023   | Intermediate Algebra                                   | MATH 12      | 10/1/13 | 9/30/16  | no credit |
| MATH 1110   | Introduction to Finite Fields                          | MATH 116TR   | 10/1/13 | 9/30/16  | 1         |
| MATH 2115   | Probability and Stat for Crypt I                       | STAT 200     | 1/1/16  | 12/31/18 | 3         |
| MATH 2330   | Foundations of Algebraic Theory                        | MATH 316TR   | 10/1/13 | 9/30/16  | 2         |
| MATH 3330   | Algebraic Coding Theory                                | MATH 316TR   | 1/1/16  | 12/31/18 | 3         |
| MATH 4335   | Combinational Mathematics                              | MATH 316TR   | 10/1/13 | 9/30/16  | 3         |
| ANSK 2101   | Critical Thinking & Structured Analysis                | ELEC 300TR   | 10/1/13 | 9/30/16  | 3         |
| COMM 3245   | Briefing Skills                                        | COMM 300-202 | 1/1/13  | 12/31/18 | 3         |
| EG 243      | Briefing Skills                                        | SPCH 116TR   | 10/1/86 | 12/31/99 | 1         |
| EG 155      | Effective Agency Writing II                            | WRTG 112     | 9/1/91  | 12/31/99 | 3         |
| KORN 3700   | A Cryptologic Introduction to North Korean Society     | KORN 316TR   | 1/1/16  | 12/31/18 | 3         |
| KORN 2145   | Basic Korean Reading Translation                       | KORN 116TR   | 1/1/05  | 12/31/07 | 3         |
| KORN 2090KR | Cryptologic Korean Basic Enhancement                   | KORN 316TR   | 11/1/14 | 10/31/17 | 8         |
| KORN 2099JJ | Cryptologic Korean Enhancement                         | KORN 316TR   | 11/1/14 | 10/31/17 | 6         |
| KORN 3129JJ | Korean Cryptologic Intermediate Course                 | KORN 316TR   | 11/1/14 | 10/31/17 | 6         |
| KORN 3245   | Intermediate Cryptologic Korean Reading/Translation    | KORN 316TR   | 1/1/16  | 12/31/18 | 5         |
| KORN 3253KR | Cryptologic Korean Intermediate Enhancement            | KORN 316TR   | 10/1/13 | 9/30/16  | 5         |
| KORN 3281   | Korean Cryptologic Hanja Workshop I                    | KORN 316TR   | 1/1/16  | 12/31/18 | 3         |
| CHIN 2059JJ | Chinese Cryptologic Basic Refresher                    | CHIN 116TR   | 10/1/13 | 9/30/16  | 6         |
| CHIN 2090KR | Cryptologic Chinese Basic Enhancement                  | CHIN 116TR   | 10/1/13 | 9/30/16  | 6         |
| CHIN 2090JJ | Chinese Cryptologic Basic Enhancement                  | CHIN 116TR   | 8/1/09  | 4/30/13  | 6         |
| CHIN 2153   | Chinese Cryptologic Refresher Course                   | CHIN 116TR   | 6/1/10  | 6/30/15  | 6         |
| CHIN 2500KR | Chinese Cryptologic Introduction to Long Form          | CHIN 116TR   | 8/1/07  | 6/30/15  | 4         |
| CHIN 3129JJ | Chinese Cryptologic Intermediate Course                | CHIN 316TR   | 1/1/13  | 12/31/18 | 6         |
| CHIN 3242   | Essential Chinese Cryptologic Grammar and Applications | CHIN 316TR   | 4/1/03  | 12/31/12 | 8         |
| CHIN 3245   | Chinese Cryptologic Readings and Translations I        | CHIN 316TR   | 1/1/16  | 12/31/18 | 6         |
| CHIN 3246   | Chinese Cryptologic Readings and Translations II       | CHIN 316TR   | 1/1/16  | 12/31/18 | 6         |
| CHIN 3320   | Chinese Cryptologic Listening Comprehension            | CHIN 316TR   | 4/1/06  | 9/30/09  | 8         |
| CHIN 4129JJ | Chinese Cryptologic Advanced Course                    | CHIN 316TR   | 10/1/13 | 9/30/16  | 8         |
| COMM 3001   | Core Principles of Professional Writing                | EWRT 116TR   | 11/1/17 | 10/31/20 | 1         |

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|-------------------|--------------------------------------------------|----------------------------|-------------------|-----------------|----------------|
| KORN 2600         | Korean Intermediate Course                       | VTCH 100TR                 | 1/1/16            | 12/31/18        | 6              |
| KORN 3600         | Korean Advanced Course                           | VTCH 100TR                 | 1/1/16            | 12/31/18        | 6              |
| <b>GRADUATE</b>   |                                                  |                            |                   |                 |                |
| <b>NCS Course</b> | <b>NCS Course Description</b>                    | <b>UMGC Course Subject</b> | <b>Begin Date</b> | <b>End Date</b> | <b>Credits</b> |
| CYBR 3422         | Computer Network Operations Qualification Course | CBR 600                    | 5/1/17            | 4/30/20         | 6              |
|                   |                                                  | CST 610                    | 5/1/17            | 4/30/20         | 6              |
| CYBR 3422         | Computer Network Operations Qualification Course | CBR 600                    | 5/1/16            | 4/30/17         | 6              |
| CYBR 3420         | ROC Foundations Training                         | CBR 600                    | 1/1/16            | 4/30/16         | 6              |
| CYBR 3420         | ROC Foundations Training                         | CBR 600                    | 1/1/13            | 12/31/15        | 6              |