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| Course Information: |
| College:  |  Waukesha County Technical College |
| Course Title:  |  Data Security |
| Course Number:  |  10-150-156 |

**Course Competencies**

Competencies are what learners will be able to do as a result of the learning experience. In this course, the competencies that you must demonstrate are:

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| **#** | **Course Competency:** |
| 1: | Classify the challenges of securing information |
| 2: | Analyze components of attacks |
| 3: | Analyze Server- and Client-side Attacks |
| 4: | Harden Operating System services |
| 5: | Demonstrate cryptography processes |
| 6: | Apply cryptography |
| 7: | Implement network defenses |
| 8: | Apply secure networking principles |
| 9: | Solve wireless security challenges |
| 10: | Define methods to secure mobile devices |
| 11: | Implement access control |
| 12: | Apply authentication mechanisms |
| 13: | Plan for disaster recovery |
| 14: | Implement a risk mitigation strategy |
| 15: | Perform vulnerability assessments |

| **Week(s)/ Session:** | **Learning Plan/Description:** | **Targeted Competencies: (#)** | **Assessment Activities, (i.e. Performance Assessment Tasks [PATS], Exam/Quiz, Discussion Board, etc.):** |
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| 1 |  1 – Introduction to Security2 – Malware & Social Engineering Attacks3 – Application & Networking-based Attacks | Classify the challenges of securing informationAnalyze components of attacksAnalyze server and client side attacks | Netlab lab #1 (online, proprietary)Chapter 1 Review Questions (online, proprietary)Chapter 1 Exam (online, proprietary)Netlab labs #9 & 10 (online, proprietary)Chapter 2 Review Questions (online, proprietary)Chapter 2 Exam (online, proprietary)Netlab lab #11 (online, proprietary)Chapter 3 Review Questions (online, proprietary)Chapter 3 Exam (online, proprietary) |
| 2 |  4 – Host, Application and Data Security5 – Basic Cryptography6 – Advanced Cryptography | Harden operating system servicesDemonstrate cryptography processesApply cryptography | Netlab labs #15 & 3 (online, proprietary)Chapter 4 Review Questions (online, proprietary)Chapter 4 Exam (online, proprietary)Netlab labs #19 & 20 (online, proprietary)Chapter 5 Review Questions (online, proprietary)Chapter 5 Exam (online, proprietary)Netlab lab #4 (online, proprietary)Chapter 6 Review Questions (online, proprietary)Chapter 6 Exam (online, proprietary) |
| 3 | 7 – Network Security Fundamentals8 – Administering a Secure Network9 – Wireless Network Security | Implement network defensesApply secure networking principlesSolve Wireless security challenges | Netlab lab #7 (online, proprietary)Chapter 7 Review Questions (online, proprietary)Chapter 7 Exam (online, proprietary)Netlab lab #2 (online, proprietary)Chapter 8 Review Questions (online, proprietary)Chapter 8 Exam (online, proprietary)Netlab lab #5 (online, proprietary)Chapter 9 Review Questions (online, proprietary)Chapter 9 Exam (online, proprietary) |
| 4 | 10 – Mobile Device Security11 – Access Control Fundamentals | Define methods to secure mobile devicesImplement access control | Chapter 10 Review Questions (online, proprietary)Chapter 10 Exam (online, proprietary)Netlab labs #18 (online, proprietary)Chapter 11 Review Questions (online, proprietary)Chapter 11 Exam (online, proprietary) |
| 5 | 12 – Authentication & Account Management 13 – Business Continuity | Apply authentication mechanisms Plan for disaster recovery | Netlab labs #17 & 13 (online, proprietary)Chapter 12 Review Questions (online, proprietary)Chapter 12 Exam (online, proprietary)Netlab labs #8 & 6 (online, proprietary)Chapter 13 Review Questions (online, proprietary)Chapter 13 Exam (online, proprietary) |
| 6 | 14 – Risk Mitigation15 – Vulnerability Assessment | Implement a risk mitigation strategyPerform vulnerability assessments | Netlab lab #12 (online, proprietary)Chapter 14 Review Questions (online, proprietary)Chapter 14 Exam (online, proprietary)Netlab lab #14 (online, proprietary)Chapter 15 Review Questions (online, proprietary)Chapter 15 Exam (online, proprietary)EXAM – Final Exam |
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