| **Institution:** | **Texas State Technical College** | **Program Award Title and Level:** | **Cybersecurity AAS** |
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**Key Activities to WECM Course Matrix**

| **CYBERSECURITY SKILL STANDARDS** Key Activity# / Statement | | WECM Course Rubric, Number and Title | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ITSY 2301  Firewalls and Network Security | ITSY 2359 Security Assessment and Auditing | ITSY 2330 Intrusion Detection | ITSY 1342 Information Technology Security | ITNW 1354 Implementing and Supporting Servers | ITNW 2355  Server Virtualization | ITSY 1375  Security Scripting |
| **A. Provide Data/Information Assurance** | **A1.** Gather and document data/information assurance requirements | **X** | **X** |  |  |  |  |  |
| **A2.** Develop data/information assurance plans and implementation strategies | **X** |  |  |  |  |  |  |
| **A3.** Review and test plans and strategies for compliance with applicable regulations and standards |  | **X** |  | **X** |  |  |  |
| **A4**. Implement data/information assurance plans and strategies |  | **X** |  |  |  |  |  |
| **A5.** Monitor performance to ensure integrity and confidentiality | **X** |  |  | **X** |  |  |  |
| **A6.** Maintain and update data/information assurance plans and strategies as appropriate |  | **X** |  |  |  |  |  |
| **B. Ensure Infrastructure and Network Security** | **B1**. Gather data and analyze security requirements |  | **X** |  |  |  | **X** |  |
| **B2.** Identify, analyze and evaluate infrastructure and network vulnerabilities |  | **X** | **X** |  |  |  | **X** |
| **B3.** Develop critical situation contingency plans and disaster recovery plan |  |  |  | **X** | **X** |  |  |
| **B4.** Implement/test contingency and backup plans and coordinate with stakeholders |  |  |  |  | **X** |  |  |
| **B5**. Monitor, report and resolve security problems |  |  | **X** | **X** | **X** |  |  |
| **C. Develop, Manage and Enforce Security Policies** | **C1.** Perform research and analyze requirements |  |  |  | **X** | **X** |  |  |
| **C2.** Develop, assess and document security policies, practices and procedures |  |  |  | **X** | **X** |  |  |
| **C3.** Disseminate policies and implementation practices and procedures |  |  |  | **X** | **X** |  |  |
| **C4.** Implement, enforce and monitor security policies, practices and procedures | **X** |  |  |  | **X** |  |  |
| **D. Perform Security Education and Training** | **D1.** Identify and assess education and training requirements for all constituents |  |  |  |  |  |  | **X** |
| **D2.** Identify resources and support materials |  |  |  |  |  |  | **X** |
| **D3.** Design and develop education and training plans and strategies |  |  |  |  |  |  | **X** |
| **D4.** Deliver education and training |  |  |  |  |  |  | **X** |
| **D5.** Assess results and determine follow up requirements |  | **X** |  |  |  |  | **X** |
| **E. Develop and Implement Physical Security, Deterrence and Detection** | **E1.** Identify and assess current and anticipated security risks and vulnerabilities | **X** | **X** | **X** |  |  |  |  |
| **E2.** Research and evaluate alternative current and emerging practices, tools and technologies |  |  |  | **X** |  |  |  |
| **E3.** Select and apply relevant tools to meet security goals and requirements | **X** |  | **X** |  |  |  | **X** |
| **E4.** Monitor, evaluate and test security conditions and environment |  |  | **X** |  |  |  |  |
| **E5**. Implement, extend and refine physical security plans and practices |  |  |  | **X** |  |  |  |
| **F. Perform System Design and Analysis** | **F1.** Define current systems-level requirements and forecast future needs and trends |  |  |  |  |  | **X** |  |
| **F2.** Evaluate current and emerging tools and technologies |  |  | **X** |  |  |  | **X** |
| **F3.** Evaluate organization’s security strategies |  | **X** |  |  |  |  |  |
| **F4.** Make recommendations regarding organization’s investment in security |  | **X** |  | **X** |  |  |  |
| **F5.** Coordinate systems testing and integration |  |  |  |  |  | **X** |  |
| **F6.** Audit and maintain systems performance and ensure future readiness |  | **X** |  |  |  | **X** |  |