Cybersecurity Analytics

Cybersecurity Competencies

As you gain knowledge and skills throughout the bootcamp, you will use **competencies** to:

- Assess your abilities.
- Identify areas where you need to improve.
- Learn about a defined area of expertise.
- Articulate the workforce needs of your future employer.

Use the following three tabs to become familiar with the competencies that this bootcamp addresses:

- Organizational
- Technical
- Professional

Identifier	Competency	Description
O1	Asset and Inventory Management	Describes a learner's capabilities that relate to identifying, developing, operating, maintaining, upgrading, and disposing of assets.
O2	Risk Management	Describes a learner's capabilities that relate to the principles, methods, and tools used for risk assessment and mitigation, including the assessment of failures and their consequences. This also includes the oversight, evaluation, and support of the documentation, validation, assessment, and authorization processes necessary to assure that both existing and new technology systems meet the cybersecurity and risk requirements of the organization.

Identifier	Competency	Description
T1	Computer Languages	Describes a learner's capabilities that relate to computer languages and their applications for the purpose of enabling a system to perform specific functions.
T2	Data Analysis and Security	Describes a learner's capabilities related to systematically applying statistical and logical techniques to describe, illustrate, condense, summarize, and evaluate data. The synthesis and analysis of various types of data to reach a decision, make a recommendation, or to compile reports, briefings, executive summaries, and other correspondence to support organizational work, goals, and plans. It includes the methods and procedures that protect data and information systems by ensuring their confidentiality, integrity, and availability.
T3	Digital Forensics	Describes a learner's capabilities that relate to applying the tools and techniques used in both data recovery and the preservation of electronic evidence. This includes collecting, processing, preserving, analyzing, and presenting computer-related evidence that supports both network vulnerability mitigation and criminal, fraud, counterintelligence, and law enforcement investigations.

T4	Incident Management	Describes a learner’s capabilities that relate to the tactics, technologies, principles, and processes for analyzing, prioritizing, and handling cybersecurity incidents.
T5	Infrastructure Design	Describes a learner’s capabilities that relate to the architecture and topology of software, hardware, and networks. These include local area networks (LANS), wide area networks (WANS), and telecommunications systems; their components and associated protocols and standards; and how they operate and integrate with one another and with their associated controlling software.
T6	Mathematical Reasoning	Describes a learner’s capabilities that relate to both solving practical problems and determining if an assertion is correct by appropriately choosing from various mathematical and statistical techniques.
T7	Network Management	Describes a learner’s capabilities that relate to operating, managing, and maintaining computer network and telecommunication systems and their linked systems and peripherals.
T8	Vulnerabilities Assessment	Describes a learner’s capabilities that relate to the principles, methods, and tools used to assess vulnerabilities and that further relate to developing or recommending appropriate mitigation countermeasures.
T9	Encryption	Describes a learner’s capabilities that relate to the cryptographic process of transforming data to ensure that only the person who's authorized to access it can read it .
T10	System Administration	Describes a learner’s capabilities that relate to installing, configuring, troubleshooting, and maintaining computer systems to ensure their confidentiality, integrity, and availability. This includes managing accounts, firewalls, and patches in addition to access control, passwords, and account creation and administration.

Identifier	**Competency**	**Description**
P1	Interpersonal Skills	Describes a learner’s capabilities related to developing and maintaining relationships with others in order to work effectively. Includes being sensitive to and inclusive of cultural diversity, race, gender, disabilities, and other individual differences as well as considering and responding appropriately to the needs, feelings, and capabilities of customers and colleagues. Includes understanding when and how to adapt messages for different audiences as well as listening to others’ instructions, ideas and intentions, attending nonverbal cues, and responding appropriately.
P2	Problem Solving	Describes a learner’s capabilities related to determining the accuracy and relevance of information; using sound judgment to generate and evaluate alternatives; and making well-informed, objective recommendations and decisions that take into account facts, goals, constraints, and risks while perceiving the impact and implications of the decisions. Includes comprehending meaning and identifying main ideas, noting details and facts, detecting inconsistencies, critically evaluating and analyzing the information, and applying what is learned to new situations.
P3	Writing	Describes a learner’s capabilities that relate to using written language to gather information and prepare written documents. This includes citing sources and clearly and effectively articulating thoughts and ideas to people both inside and outside the organization.
P4	Career Preparation	Describes a learner's capabilities that relate to networking, understanding career pathways, interviewing and negotiating, and performing a job search. This includes creating personal marketing tools, like a pitch, a resume, and employee profiles.