ACM Committee for Computing Education in Community Colleges

Associate-Degree IT Core Competencies/Learning Outcomes

REVIEWERS DRAFT: VISIT CAPSPACE.ORG TO COMMENT

	BLOOM'S COGNITION LEVEL: REMEMBERING UNDERSTANDING APPLYING					
CONCEPTUAL DOMAIN	**TECHNICAL DOMAIN**					
	Programming & Application Development	**Database & Information Management**	**Servers, Storage & Virtualization**	**Networking**	**End-user Computing & Support**	**Digital Media**
Design, Development & Testing	Summarize the purposes of programming languages. Discuss software development methodologies. Use a programming language to solve a problem. Diagram the phases of the Secure Software Development Lifecycle.	Identify database administration tasks. Diagram a database design based on an identified business scenario. Produce simple database queries.	Discuss data governance and its implications for users as well as IT professionals. Summarize the implications of various cloud computing models. Describe the concepts and applications of virtualization.	Describe the layers, protocols and components of the OSI model. Describe basic network troubleshooting strategies.	Differentiate between trouble-shooting strategies for resolving an identified end-user IT problem. Identify basic components of an end-user IT system.	Implement communication principles into digital media design. Diagram the stages of the Technological Design Process.
Human-centered Computing	Describe best practices for programming end-user interfaces.	Differentiate between public and private data.			Differentiate between various end-user operating systems. Implement a hardware and software configuration responsive to an identified scenario.	Describe a variety of technology-based sensory interactions.
Security and Privacy	Demonstrate defensive programming and secure coding techniques.	Describe the data management activities associated with the data lifecycle.	Summarize security implications and risks for distributed IT systems. Discuss encryption and authentication technologies to ensure confidentiality of data & regulatory compliance.	Differentiate between various techniques for securing a network.	Explain the authentication process between end-user devices and network resources. Describe best practices for securing end-user IT systems.	
Systems Integration & Solution Deployment	Use a scripting language to share data across an integrated IT system.	Describe applications of business analytics.	Identify a variety of enterprise-level storage technologies. Differentiate between strategies for business continuity provisioning at the enterprise level.	Diagram the components of an integrated IT system. Describe various networking architectures.	Summarize the strategies for orienting users to changes in the IT environment. Classify life-cycle strategies for replacement, reuse, recycling of end-user technologies.	Differentiate among data transfer protocols and file characteristics specific to end-user devices.