Networking Academy

Internet of Things (IoT) Courses

We live in a digital world where every day more and more devices connect to the network. With computing costs dropping, this trend continues to grow. Using programmable software code, sensors and actuators, students learn to monitor and control the physical world. And that's just the beginning. Internet of Things (IoT) devices generate vast amounts of data -- data that can be analyzed, providing business insights -- data that optimizes business decisions and automates processes. Thanks to the programmable infrastructure, new features are added to the network with easy-to-write programmable code.

Our IoT courses develop diverse skills such as programming, data analytics, and systems-level thinking, together with a strong focus on security and business considerations when using new technologies. Students learn practical career-ready skills that employers need in this expanding digital world.

Course	Introduction to Internet of Things (IoT)	IoT Fundamentals: Hackathon Playbook
Course Overview	An overview of networking foundational concepts for connecting billions of devices and creating trillions of gigabytes of data - all available to enhance business decisions.	A comprehensive framework of tools and templates to prepare and run a hackathon – based on best practices learned from IoT hackathons delivered around the world.
Benefits	Students gain a big picture view for how emerging technologies are shaping digital business. Plus they learn about career opportunities in this exciting new landscape.	With hands-on activities, students reinforce and deepen multidisciplinary IoT and data skills by defining, designing, prototyping, and presenting an IoT solution to a panel of industry experts and peers.
Target Audience	Secondary, vocational, 2-year college, general audience	Secondary, vocational, 2-year and 4-year college, 4-year university students
Prerequisites	None	IoT Fundamentals: Connecting Thing, and/or Big Data & Analytics
Certification	No	No
Additional Details	• No instructor training required • Self-paced or Instructor-led • 20 hours	• ASC alignment required • No instructor training required • Instructor-led • 20-30 hours
Next Course(s)	CCNA: Introduction to Networks (ITN); IoT: Connecting Things	Any Career course offering from Cisco or an industry IoT training program

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Course	IoT Fundamentals: Connecting Things	IoT Fundamentals: Big Data & Analytics	IoT Security
Course Overview	Teaches how to securely interconnect sensors, actuators, microcontrollers, single-board computers, and cloud services over IP networks creating an end-to-end IoT system.	A short course that teaches how to use Python data libraries to create a pipeline to acquire, transform, and visualize data collected from IoT sensors and machines.	The explosive growth of connected IoT devices enables the digitization of industries, but also increases the exposure to security threats. Students learn to perform vulnerability and risk assessments, and research and recommend risk mitigation strategies for common security threats in IoT systems.
Benefits	Students develop interdisciplinary skills required to prototype an IoT solution for a specific business case. Includes a strong focus for security considerations using new and emerging technologies.	The value of any IoT system is the data collected. Students gain employable skills to extract & use data analytics for business insights.	Students are prepared for a career in the rapidly growing IoT and security domains with practical tools and skills relevant across IoT and other network architectures.
Target Audience	Secondary, vocational, 2-year and 4-year college, 4-year university students	2-year and 4-year college, 4-year university students	Vocational, 2-year and 4-year College, 4-Year University students
Prerequisites	Basic programming, networking and electronics	IoT Fundamentals: Connecting Things	IoT: Connecting Things, and knowledge equivalent to Networking Essentials and Cybersecurity Essentials courses
Certification	No	No	No
Additional Details	• ASC alignment required • Instructor training required • Instructor-led • 40-50 hours	• ASC alignment required • Instructor training required • Instructor-led • 40-50 hours	• ASC alignment required • Instructor training required • Instructor-led • 50 hours
Next Course(s)	IoT Fundamentals: Big Data & Analytics or Hackathon Playbook	IoT Fundamentals: Hackathon Playbook, CCNA: Introduction to Networks (ITN)	CyberOps Associate or CCNA Security