

Hands-On

Tier 1: Fundamentals of IT for Data Centers (10-Day Intensive)



Course Description

This 10-day intensive course provides a practical foundation in information technology for data centers. Students

will explore how data centers are engineered and operated, from the physical and environmental aspects to the

computer systems, software, networking, and collaboration tools that keep modern data centers running. Through

a mix of lectures, hands-on labs, and real-world scenarios, participants will gain core competencies in data center

overview, computer basics, operating systems, file management, productivity software, internet fundamentals,

collaboration tools, basic troubleshooting, and foundational networking concepts. By the end of the course,

learners will be prepared to contribute to data center operations, support IT infrastructure, and engage in basic problem-solving and maintenance tasks within a data center environment.



Students Will Learn

- Describe the architecture, components, and environmental considerations of a data center (data floor, power, cooling, racking, cabling, and physical security).
- Identify computer hardware basics, operating systems, and file management practices relevant to data centers.
- Demonstrate proficiency with productivity and collaboration tools used in IT operations.
- Understand internet fundamentals and core networking concepts at a foundational level.
- Apply basic troubleshooting steps to common IT and data center incidents.
- Navigate and utilize basic network concepts to support data center connectivity and operations.
- Recognize best practices for documentation, versioning, and change control in an IT environment.

Target Audience

New IT professionals, data center technicians, and operations staff seeking foundational knowledge in data center IT.

Individuals preparing for roles in data center operations, infrastructure support, or facilities engineering.
Anyone seeking a structured overview of data center IT fundamentals.

Prerequisites

Basic computer literacy (operating a PC, using common software)

No prior data center experience required enthusiasm to learn and engage in hands-on labs is encouraged.

Course Outline

Course 1: Tier I: Fundamentals of IT for Data Centers

Module 1: History of Computers

Module 2: Introduction to Computers and Basic concepts

Module 3: Operating systems and user interfaces

Module 4: File management and basic typing

Module 5: Introduction to Programming/Coding

Module 5: Introduction to productivity software

Module 6: Internet fundamentals and online safety

Module 7: Communication and collaboration tools

Module 8: Basic troubleshooting, maintenance, and privacy

Module 9: Basic Computer Networking & Tools

Module 10: Connecting to the Corporate Network (Direct or VPN)

Delivery Method

Daily blend of interactive lectures, hands-on labs, and guided exercises.

Emphasis on practical, scenario-based learning and real-world troubleshooting.

Labs reflect typical data center tasks system observation, file management, OS interaction, network basics, and collaborative tooling usage.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

10 Days