TBS Academy
IT end to end

TBS Academy Program (Detailed)

Phase 1

- **Local Area and Wireless Networking**
  - Understanding networks using the OSI (Open Systems Interconnection) reference model
  - Physical and logical connectivity, networking topologies
  - Fundamentals of Ethernet and switching in a local area network
  - Fundamentals of Internet Protocol, addressing and higher-level protocols – TCP (Transmission Control Protocol), UDP (User Datagram Protocol), DNS (Domain Name System), DHCP (Dynamic Host Configuration Protocol)
  - Fundamentals of Wireless LANs (local area networks) – radio waves, antennas, media access control in wireless networks
  - Routing LANs to the Internet, Network Address Translation
  - Practical Exercise

- **Enterprise Networking Technologies**
  - Media access control in LANs
  - Understanding link aggregation and LACP (Link Aggregation Control Protocol)
  - Virtual LANs and trunks
  - Routing fundamentals, Internet Protocol and Addressing, Routing Protocols, Transport Layer Protocols
  - Network redundancy and high availability
  - Wide Area Network technologies – AON, GPON, DWDM
  - Mobile Networks, 1G-5G and fixed networks
  - Understanding and configuring proxy and reverse proxy servers
  - Securing Internet access using Next Generation Firewalls
  - Enterprise wireless networks – architecture and design concepts
  - Understanding authentication and authorization
  - Multi-Factor Authentication
  - Identity management and directory services using Active Directory Domain Services and Azure Active Directory
  - Cryptography basics, certificate authentication and enterprise certificate services
  - Practical Exercise

- **Extending Enterprise Networks to Remote Workers and to the Cloud**
  - Understanding the cloud – principles and delivery mechanisms
  - Public, Private and Hybrid cloud; comparing IaaS (Infrastructure as a Service), PaaS (Platform as a Service), and SaaS (Software as a Service)
  - Overview of the Microsoft 365 SaaS platform
  - Overview of Microsoft Azure and Azure IaaS services
  - Securely connecting branch offices using VPN technologies – IPsec, DMVPN
  - Securely connecting remote workers using Remote Access VPN solutions
  - Practical Exercise

- **Managing, Securing, Monitoring and Troubleshooting Networks**
  - Management and monitoring protocols and monitoring objectives
  - Understanding SNMP (Simple Network Management Protocol) and NMS systems
  - Mastering systematic troubleshooting

- **Datacenter Networking, Servers, Storages and Virtualization Technologies**
  - Servers and server components – hardware and software overview
  - Storage technologies – storage types, interfaces
  - Understanding RAID (Redundant Array of Independent Disks) and levels
  - SAN (Storage Area Network) technologies
  - Overview of Datacenter networking – concepts, specifics, layers
  - DC Technologies – VMware HCI and NSX
  - Virtualization – the "engine" of the cloud; understanding (the need for) virtualization, hypervisors
  - Practical Exercise

- **Introduction to Cybersecurity**
  - Basic Intro
  - Cybersecurity
  - ASOC (Advanced Security Operations Center)

Phase 2

- **Cybersecurity in the Modern Enterprise Environment**
  - Processes, threats, and tools
  - Security Event Management
  - Privileged Access Management
  - Endpoint Detection and Response
  - Cloud security – Azure AD Identity Protection and Information Protection; Microsoft Defender for Office 365, for Identity and for Endpoint
  - Practical Exercise
- **Software-Defined Networking, Automation and Orchestration**
  - Understanding software-defined technologies
  - Software-defined Access and WAN
  - Software-defined DC
  - Automation of compute, storage, networking, and backup
  - Infrastructure as Code (IaC), cloud native platforms
- **Business Etiquette**
- **Company culture and values**
- **Personal development**
- **Office Productivity tools**
- **Automation and Integration tools**
- **Vendor technology-specific trainings**
  - Networking-related
  - Network management-related
  - Cybersecurity-related
  - Public and Private Cloud-related
  - Virtualization-related
- **Network and Service Management**
- **Involvement in real projects**