

## Student Competence for IPC

### Programme: Networking, Infrastructure and Cybersecurity, 180 credits

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The programme combines knowledge in network technology/network design, IT infrastructure and systems administration with a big focus on cybersecurity throughout the programme.

Before the industrial placement course during semester 4, the students will have taken the following courses:

# Network technology (equivalent to CCNA) and network design

- TCP/IP & OSI models
- Ethernet
- IPv4 and IPv6
- Switching & routing
- Scalable networks
- WAN incl. BGP
- Wireless networks

#### **Script programming**

- Script programming with Python
- Data structures and simple algorithms
- File management, XML, JSON
- Basic object-oriented development

#### **Network- and cybersecurity**

- Security in local networks
- FortiGate
- IDS/IPS (Snort)
- VPN (IPsec) IDS/IPS (Snort)
- Penetration testing
- Incident management
- Basic SOC knowledge

#### **System administration**

- GNU/Linux
- Windows Server
- Active Directory
- PowerShell
- Microsoft 365, Intune, Defender
- Virtualization and cloud services
- Microsoft Azure