



Microsoft Technology Associate

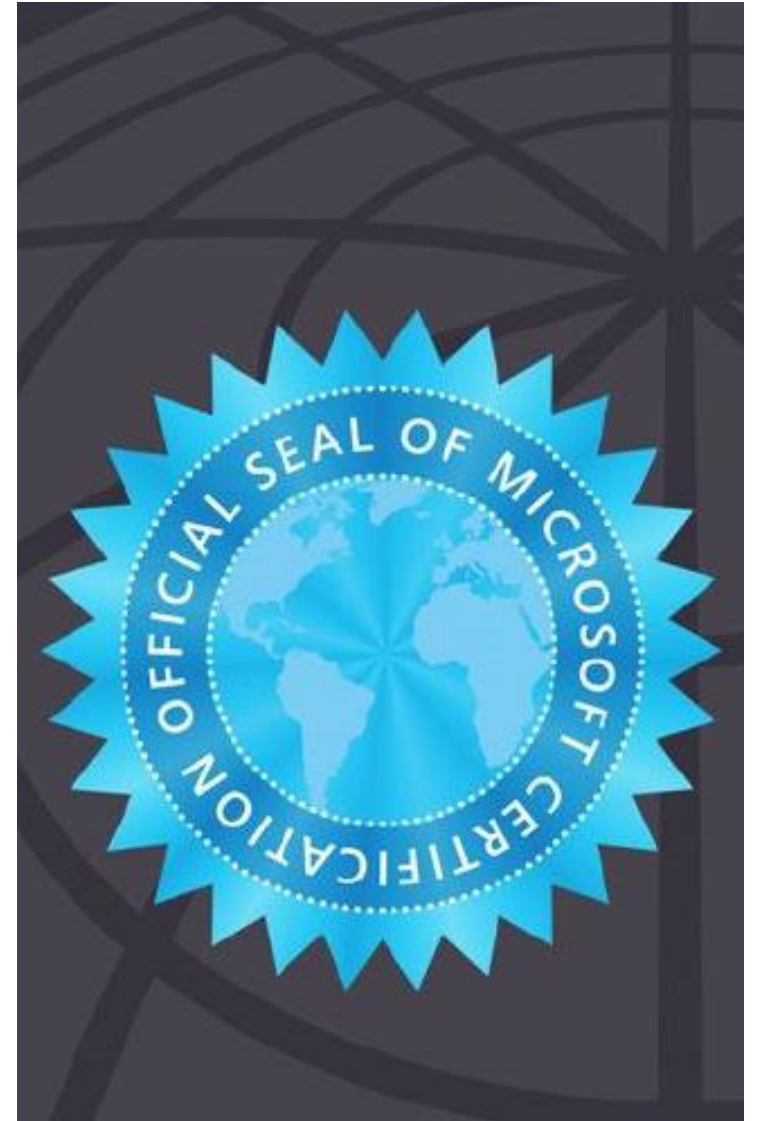
MTA 98-366 Networking Fundamentals

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Unterrichts- Gegenstände

98-366 Networking Fundamentals



NVS

Netzwerktechnik und verteilte Systeme

- **Kolleg**

1-4(6) Semester

- **Höhere Tagesschule**

2-5 Jahrgang

- **Fachschule**

1-3 Jahrgang

- Breite Themen gehen über gesamte Ausbildungszeit von NVS
- Mehr inhaltliche Tiefe (+Praxis) in NVS

Früher Lizenzierungszeitpunkt (2.Sem):

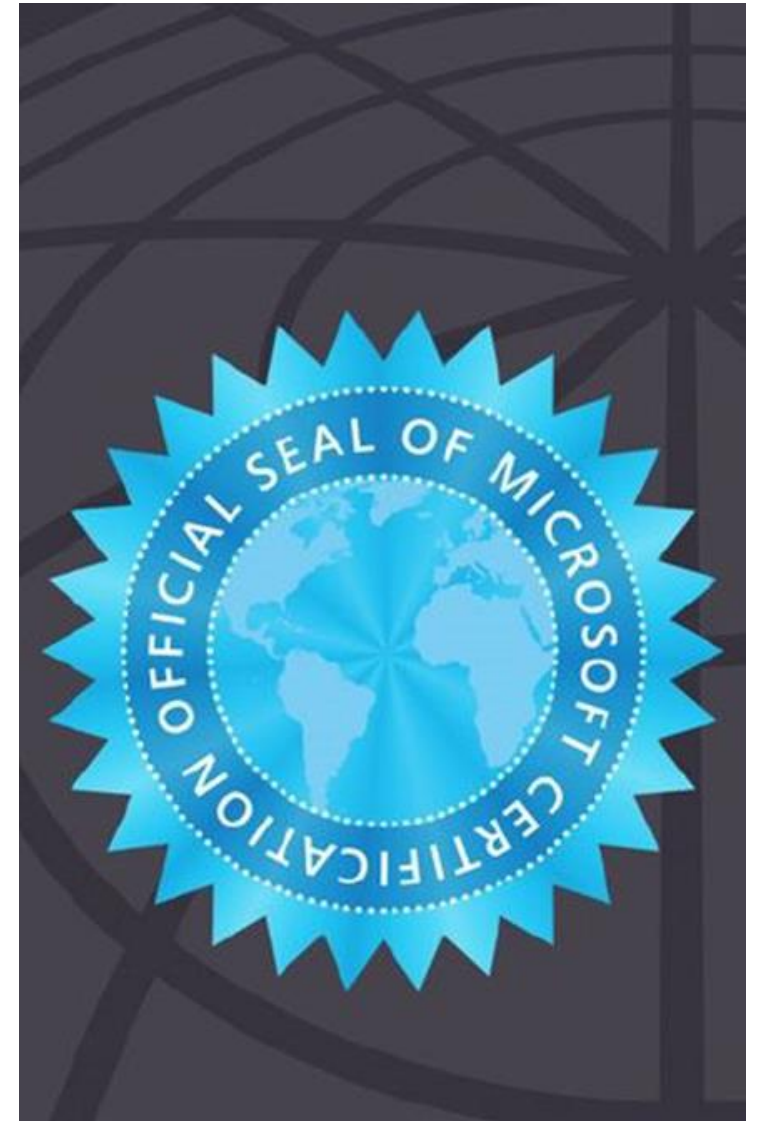
- zusätzliche Vorbereitung spezifischer Themen (VPN, NAT...)
- + Mut zur Lücke!

Späterer Lizenzierungszeitpunkt (4.Sem):

- weniger herausfordernd
- ohne zusätzliche Vorbereitung: guter Indikator für Netzwerk Allgemeinwissenstand

Prüfungsinhalt

98-366 Networking Fundamentals



Verstehen von Netzinfrastrukturen

- Internet, Intranet und Extranet
- LAN, WLAN, WAN
- Netzwerktopologien
- Firewalls
- Virtual Private Network (VPN)

You set up a network zone that allows remote access for employees of your company. This type of network is called a/an ____?

- A. Intranet
- B. World Wide Web
- C. Internet
- D. Extranet

A client wants you to set up a VPN server. Which service in Windows Server 2008 should you use?

- A. FTP
- B. RRAS
- C. DNS
- D. IIS

Verstehen von Netzwerkhardware

- Switch, VLANs, MAC-Table, ...
- Router, Routing Tables, NAT, ...
- Kabeltypen CatXX
- STP, UTP
- Glasfaser
- Probleme bei Wireless

Which of the following allows connectivity between different networks?

- A. Router
- B. Hub
- C. Windows 7 Client
- D. Switch

Your boss wants you to connect two of his laptops directly to each other using their network adapters. Which kind of cable should you use?

- A. Straight Through
- B. Rollover
- C. Crossover
- D. Patch

Verstehen von Protokollen und Diensten

- OSI/TCP –Modell
- Protokolle
- Well-known Ports
- TCP/UDP
- Packets und Frames

Your boss wants you to scan servers for DHCP activity. Which ports should you be looking for?

- A. 67 and 68
- B. 80 and 443
- C. 20 and 21
- D. 53 and 54

Verstehen von Protokollen und Diensten

- IPv4, IPv6
- Subnetting
- IP-Adresse, Subnet Mask
- DNS
- DHCP
- Commands

You need to determine the MAC address of a Windows computer. Which command should you use?

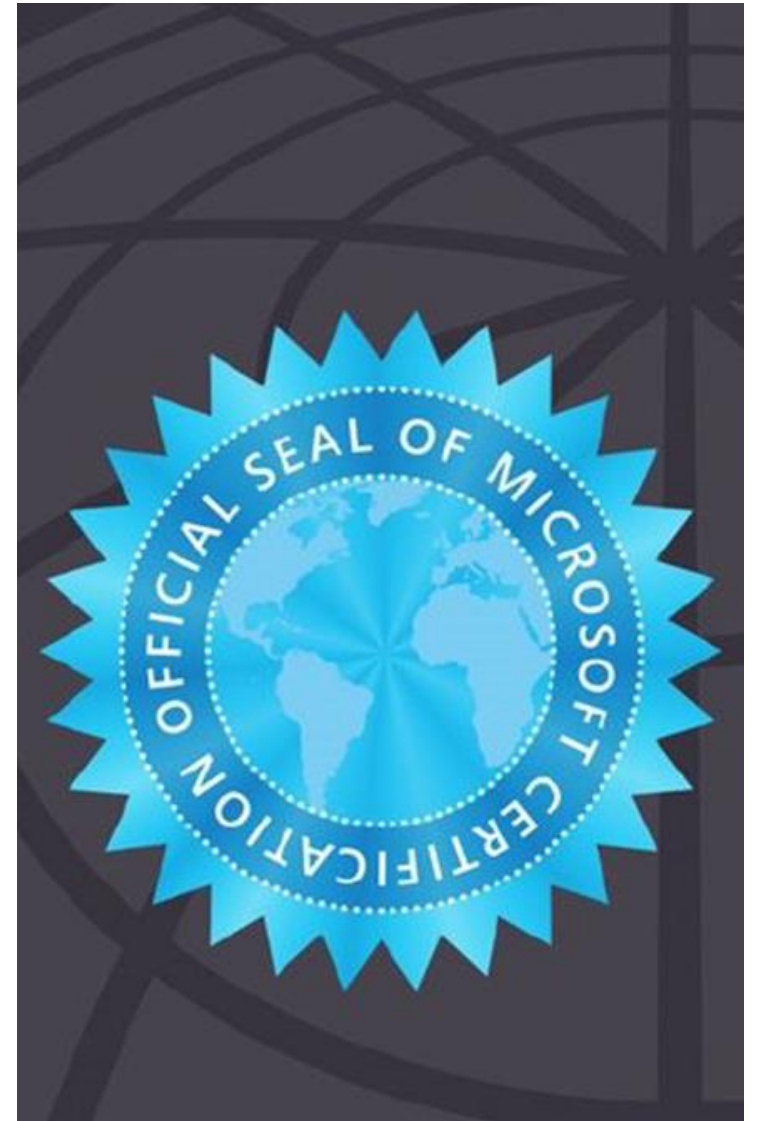
- A. `ipconfig /release`
- B. `ipconfig /all`
- C. `ipconfig /flushdns`
- D. `ipconfig`

The IT director asks you to set up 14 separate IP networks that can each have up to 400 computers. Which IANA private IP range should you select?

- A. 10.0.0.0 – 10.255.255.255
- B. 169.254.0.0 – 169.254.255.255
- C. 172.16.0.0 – 172.31.255.255

Unterrichtsmaterial

98-366 Networking Fundamentals



Online Ressourcen MVA

- Präsentationen
- Video
- Fragen
- MVA Zertifikat

The screenshot shows the Microsoft Virtual Academy interface for the course 'Networking Fundamentals: Academic Edition'. The page features a video player with a play button, a table of contents, and navigation options. The video player shows a man, Cullen White, in front of a screen displaying the course title. The table of contents lists five modules, with the first module 'Understanding Local Area Networks, Part 1' expanded to show a video (00:19:25) and a PPT file. The page also includes a search bar, a sign-in button, and a footer with various links and the Microsoft logo.

Microsoft Virtual Academy | Courses | Search all courses | Sign in

Beginner | Published: 09 September 2015

Networking Fundamentals: Academic Edition

Instructor(s): Cullen White | 208 ★★★★★ | Rate

+ Playlist | 0% COMPLETE

Information | Contents | Transcript | Forum

Table of contents

Educators, are you looking for a fast-paced and comprehensive introduction to network fundamentals? This on-demand, independent study course is just the ticket. Explore ti ... More

Time Show All

- 1 | Understanding Local Area Networks, Part 1
 - Understanding Local Area Networks, Part 1 - Video 00:19:25
 - Understanding Local Area Networks, Part 1 - PPT
- 2 | Understanding Local Area Networks, Part 2
- 3 | Defining Networks with the OSI Model
- 4 | Understanding Wired and Wireless Networks, Part 1
- 5 | Understanding Wired and Wireless Networks, Part 2

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Online Ressourcen Cisco NetAcad

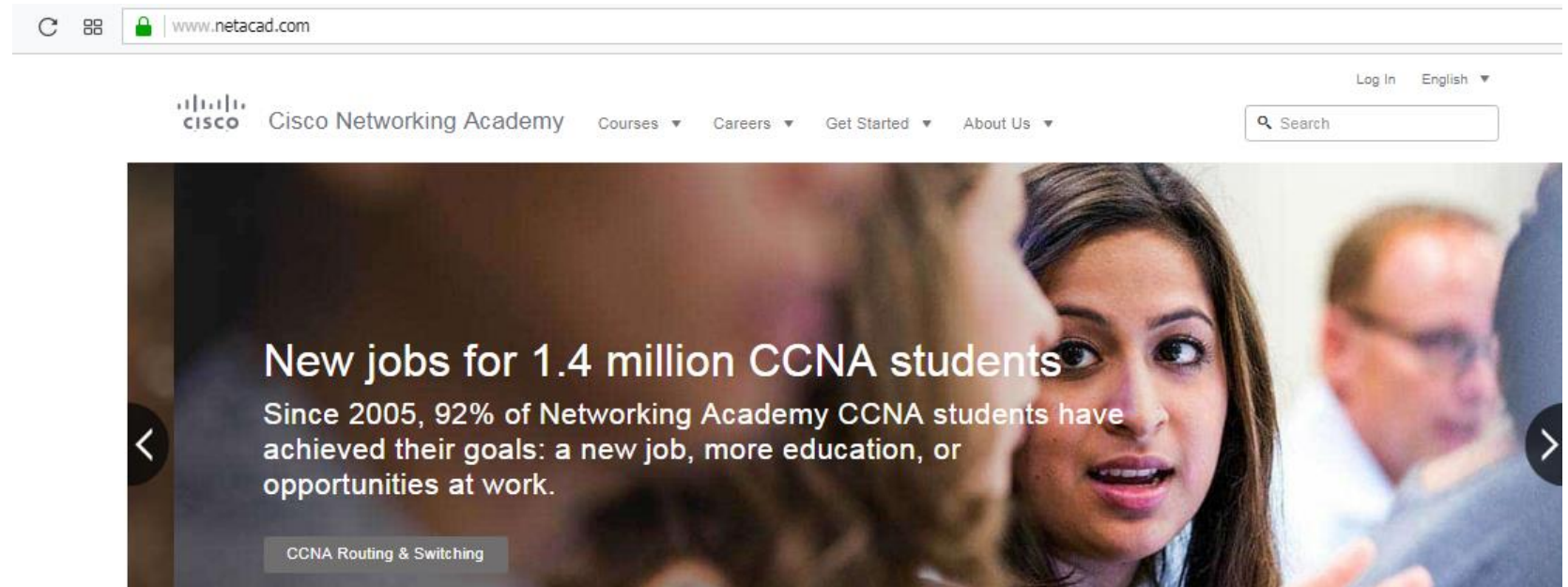
CCNA Routing and Switching:

- Introduction to Networks:
- Routing and Switching Essentials
- Scaling Networks
- Connecting Networks

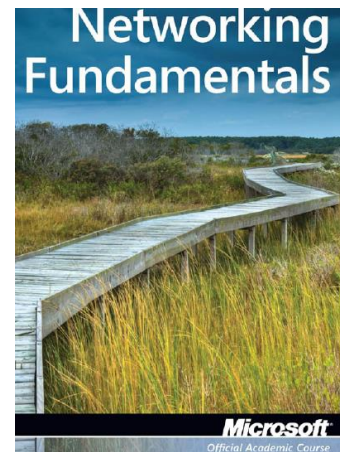
Kursbücher

Microsoft® Official Academic Course
Networking Fundamentals,
Exam 98-366

ISBN 978-0-470-90183-0

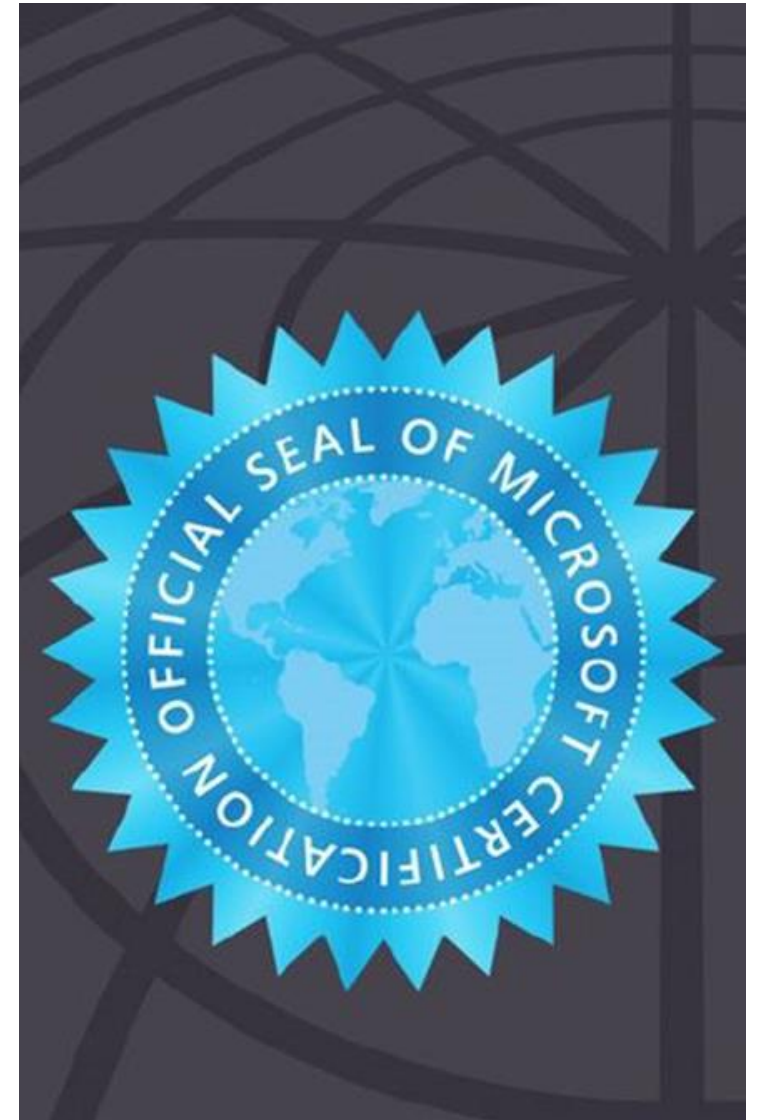


The screenshot shows the Cisco Networking Academy website. The browser address bar displays "www.netacad.com". The navigation menu includes "Courses", "Careers", "Get Started", and "About Us". A search bar is present on the right. The main banner features a woman in a classroom setting and the text: "New jobs for 1.4 million CCNA students. Since 2005, 92% of Networking Academy CCNA students have achieved their goals: a new job, more education, or opportunities at work." Below the banner, a tag reads "CCNA Routing & Switching".



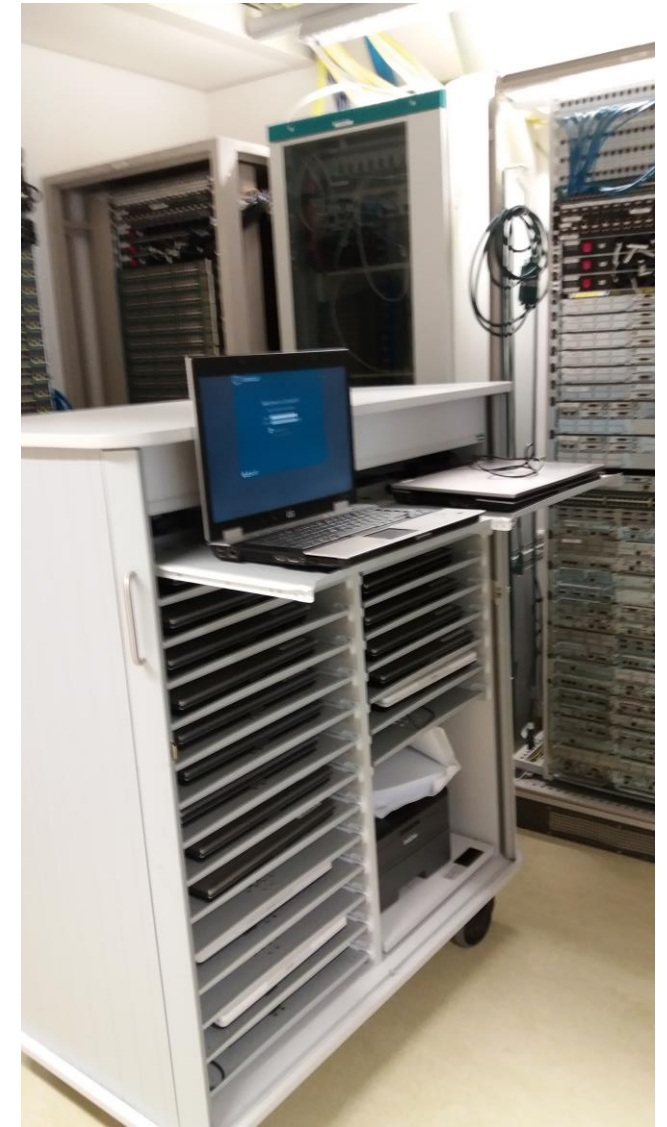
MTA Lizenzierungspilot
HTL Spengergasse
2.3.2018

Erfahrungen und Benefits



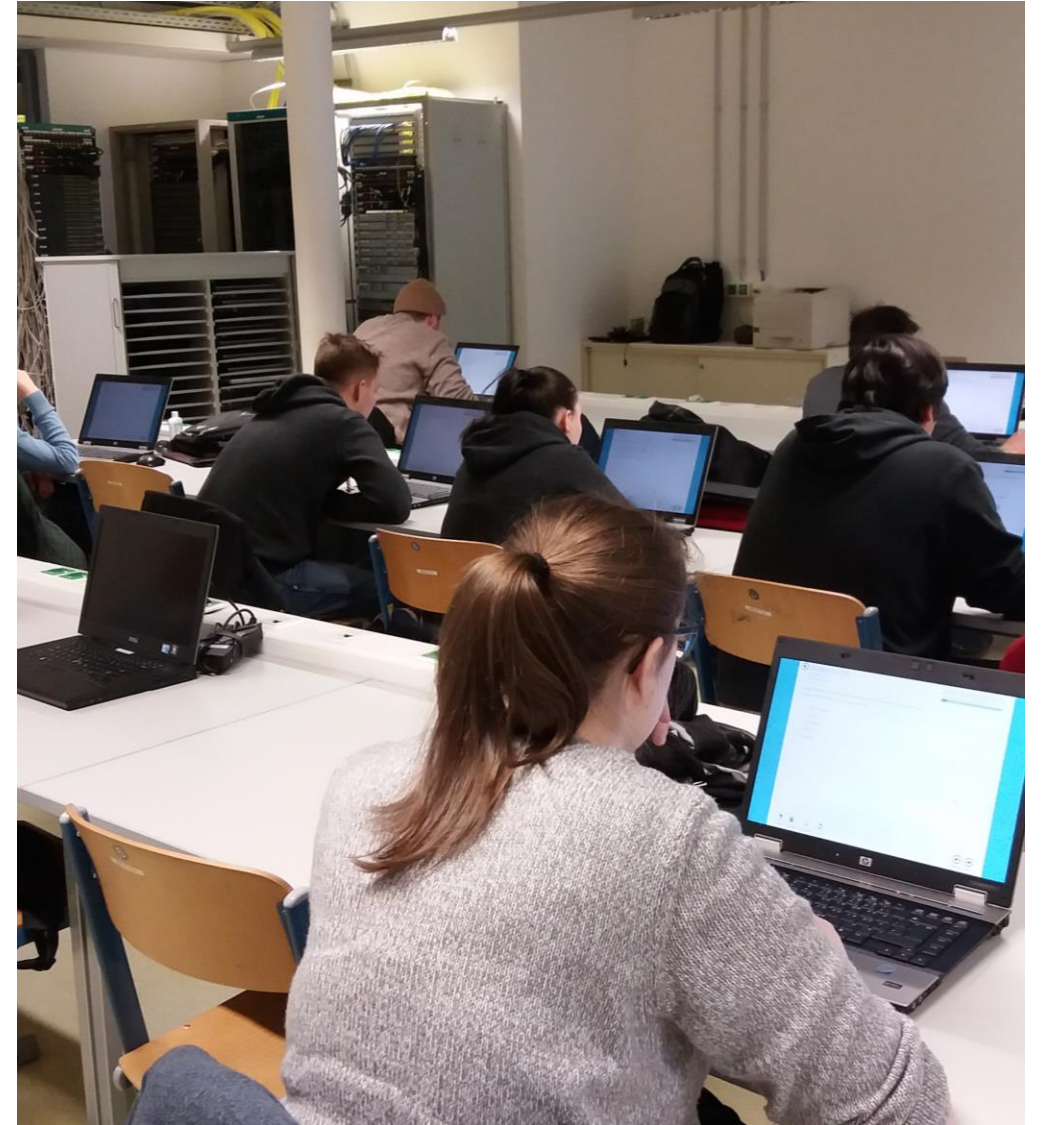
Learnings Prüfungsumgebung

- **Lokale Admin Rechte benötigt**
 - Gruppenrichtlinie in Domain
- **Internet (auf definierte Adressen) notwendig**
 - Netzwerkkonfiguration
- **Flexible Prüfungsumgebung notwendig**
 - mobiles Matura Lab



Learnings Prüfung

- Prüfungen in Englisch
→ weniger
Begriffsverwirrung
- Console8 in Englisch
installieren
- Hohes
Lizenzierungsinteresse
(z.B. 100% aus
Kolleggruppe)
- Konstruktiver Umgang
mit Fails
→ Lernen aus Fragen



Mögliche next Steps

- **Regelmäßige Lizenzierungstermine**
 - Klassenorientiert („AddOn“)
 - Kursorientiert (Freifach?)
- **Inhaltliche Erweiterung auf z.B.:**
 - Development/Programming (Java, JavaScript, C#...)
 - Database Fundamentals (SQL,..)
 - Windows Operating System Fundamentals (Win10,...)

