
Lecture Organization and Introduction

Tobias Fiebig

Technische Universität Wien

A solid blue vertical bar is positioned on the right side of the slide, extending from the top of the main content area to the bottom.

First things first: Take care of yourself! :-)

- When studying, sometimes things may be too much; stress, anxiety and depression are common challenges for academics.
- Your mental health is as important as your physical health.
- TU Wien has general assistance for students
 - <https://www.tuwien.at/studium/student-support/beratungsangebote-student-support>
- TU Wien also has dedicated mental health support (psychologists):
 - <https://www.tuwien.at/studium/student-support/psychologische-beratung-und-mentale-gesundheit>
- Book appointments online, without having to talk to people ;-)



At the end of this course, you will be able to:

- Explain basic concepts of networks, including Layer 2 (Ethernet, ARP), 3 (IPv4, IPv6), and 4 (TCP/UDP)
- Describe how the layers approach of the Internet is supported by layering and encapsulation
- Solve networking and routing scenarios, i.e., given partial network information, synthesize remaining information for a given case
- Analyze a given protocol or network using the terminology and concepts introduced in the lecture to assess its feasibility
- Design rudimentary network protocols for a given use-case



- The Internet is a collaboration of diverse and independent parties
- Well defined protocols are the foundation for communication
- Precisely understanding and following protocols is important to communicate
 - Protocol details are an important part of the concepts
 - You have to learn and understand the details
 - E.g., precisely parsing an IP header is harder than you might think



This Courses in NOT about

- Applications, e.g., Instagram
- AI, e.g., ChatGPT
- Containers, e.g., Docker
- Front End, e.g., HTML, JavaScript
- Security and Privacy, e.g., Tor or VPNs



Tobias Fiebig - Co-Lecturer

■ Education

- BSc: 'Cognitive Science', Univ. of Osnabrück
- MSc: 'System and Network Engineering', Univ. of Amsterdam
- Doctorate: TU Berlin

■ Work experience

- Researcher at University of California Santa Barbara
- Assistant Professor at TU Delft
- Senior Researcher at Max Planck Institute for Informatics
- Associate Fellow, Saarland University

■ Research Interests

- Internet backbone infrastructure
- IT security
- Internet measurements
- Human factor in operations



Daniel Wagner - Co-Lecturer

- Education
 - Master of Science: Karlsruhe Institute of Technology
 - Doctorate: University of Saarland
- Work experience
 - (Senior) Researcher at DE-CIX
- Research Interests
 - Internet backbone infrastructure
 - Botnet, DDoS, IRR / RPKI landscape
 - Internet measurements



Charmaine Taus - Team Assistant

- Education
 - Bachelor of Arts: University of Chicago / University of Vienna
- Work experience
 - 8+ years Scrum Master
 - 15+ years Project Management, Events and Comms for NGOs and private sector
- Research Interests
 - Indigenous tattoo cultures and methods
 - SE-Asian/Austronesian mythologies
 - Sequential Art
- Role
 - Actually being able to organize things
 - Contact point for students



- 'Vorlesung mit Übung' (VU)
 - Bachelor: 6 Credits
- In-person lectures
- Lecture materials: Time and Rooms
 - Mondays: 12pm - 2pm, Room EI 11 HS - INF
 - Chair web site: <https://internet.wien/>
 - Course website: <https://internet.wien/teaching/introduction-to-networking/introduction-to-networking-2026/>
 - Lecture dates
 - Slides
 - Assignments
 - E-mail address: teaching@internet.wien



Passing the Course

- Five voluntary exercises
 - 20pts each, after lecture #7, #9, #16, #19, and #22
- Mid-term exam
 - 100pts
- Final exam
 - 100pts



Grades are scaled along this scheme

- 240+ pts: 1.0
- 211-240 pts: 2.0
- 181-210 pts: 3.0
- 150-180 pts: 4.0

If a student participates in at least either

- Both exams
- One exam and all five exercises

but fails to achieve a total of 150+ pts, they may ask for an oral examination.



Exception on Time Management

- 6 Credits $\equiv$ 180 hours for this course
- Stretched across 16 weeks
 - $\sim$ 11.25 hours per week on average
 - 15 weeks of lecture period
 - 2 hours of lecture
 - $\sim$ 1 hour for the exercises on average
 - $\sim$ 8.25 hours of self studies
 - 1 week mid-term and final exam preparation
 - 11.25 hours of self study



- Course registration: According to TU Wien regulations
- Registration required
- “Closed book”
 - Only one (1) hand-written, two-sided DIN A4 sheet is allowed
- In-person
- Date: 30.11.2026
- Duration: 2 hours



- Course registration: According to TU Wien regulations
- Registration required
- “Closed book”
 - Only one (1) hand-written, two-sided DIN A4 sheet is allowed
- In-person
- Date: 25.01.2027
- Duration: 2 hours



Kurose and Ross:

- Computer Networking: A Top-Down Approach
- Eighth edition, Addison-Wesley
- Information → Kurose Ross book
- This lecture is inspired by the book and some material is similar
- Differences in order, content, and depth
- The lecture will cover significant additional material

Peterson, Davie:

- Computer Networks. A systems approach.



- This course is new this year (yay!) However, this also means:
 - We are going pretty much down-hill with you; Stay with us, if things don't work out as planned, we will find a solution.
 - There are no tutors and no PhD students to assist the course. Things might take a bit longer from time to time. ;-)

Which questions do you have?



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