Course: TTM4100 Communication - Services and Networks (version: 13.03.2017).

Textbook: J. F. Kurose and K. W. Ross. *Computer Networking: A Top-Down Approach (International Edition, 6/E or Global Edition 7)*. Pearson Higher Education.

Course Responsible: Norvald Stol / Course Coordinator: Norvald Stol (assisted by Nattachart Tamkittikhun) / Lecturers: Kjersti Moldeklev, (Norvald Stol)

Assistants: Magnus Johansen (und.ass.), Ida Wold (und.ass.); Gaute Solbu Kleiven, Petter Kowalik Gran, Simon Kvannli, Anders Lima, Andrea Nornes, Olav Sortland Thoresen (all stud.ass.).

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Piazza-forum for questions/discussion of curriculum: **piazza.com/ntnu.no/spring2017/ttm4100/home**

Lecture/tuition Schedule: (Thursday: 12:15-15:00, R1. Friday: 09:15-11:00, R1) (Tuitions for the Programming Labs and Project may be given either in F1 Wednesday 18:15-20:00 or in R1 when no lecture/tuition) (Tuitions for theory assignments in R1 most Thursdays 14:15-15:00).

Deadlines: See schedule below.

Week	Date & Time	Topic	Room	Responsible	**Remark (ref.to 6th edition)**
2	Thursday 12:15 – 14:00	Practical Information; Course Introduction Network and Internet Overview	R1	Norvald Kjersti	 Chapter 1 + brief introduction to Physical layer.
2	Friday 09:15 – 11:00	Network and Internet Overview (cont)	R1	Kjersti	Chapter 1 Chapter 8.1
3	Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	Application Layer Theory Assignment 1: *Overview of Computer Networks and the Internet* Wireshark Lab 1: *Intro (optional but highly recommended!)*	R1 R1	Kjersti Assistants/ Ida/Norvald	Chapter 2 One must deliver and pass at least 5 of the 8 theory assignments.
3	Friday 09:15 – 11:00	Application Layer (cont)	R1	Kjersti	Chapter 2 Chapter 8.2-3 and 8.5.1
4	Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	Transport Layer Theory Assignment 2: *Application Layer*	R1 R1	Kjersti Assistants/ Ida/Norvald	Chapter 3 One must deliver and pass at least 5 of the 8 theory assignments.
4	Friday 09:15 – 11:00	Transport Layer (cont)	R1	Kjersti	Chapter 3
5	Thursday 12:15 – 14:00	Transport Layer (cont)	R1	Kjersti	Chapter 3 Chapter 8.6
5	Friday 09:15 – 11:00	Network Layer	R1	Kjersti	Chapter 4
6	Wednesday 18:15 – 20:00	Python Crash Course	F1	Magnus/Bank?	Install Python before the crash course.
6	Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	Network Layer (cont) Theory Assignment 3: *Transport Layer* Wireshark Lab 2: *TCP (optional but highly recommended!)*	R1 R1	Kjersti Assistants/ Ida/Norvald	Chapter 4 One must deliver and pass at least 5 of the 8 theory assignments.
6	Friday 09:15 – 11:00	Network Layer (cont)	R1	Kjersti	Chapter 4 Chapter 8.7 and 8.9, 8.9.1

7	**NOTE:**	**No lectures from textbook in week 7.**			
7-8	See "it's learning" for when assistants are present.	Programming Lab 1: *HTTP Web Server* Programming Lab 2: *UDP Pinger* Programming Lab 3: *SMTP Mail client*	P15 - Rall	Assistants/ Ida/Bank	One must deliver and pass at least 2 of the 3 programming labs.
8	Wednesday 18:15 – 19:00 Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	"Help Lecture" for project Link Layer & LAN Theory Assignment 4: *Network Layer* Wireshark Lab 3: *IP (optional but highly recommended!)*	F1 R1 R1	Bank/ Magnus Kjersti Assistants/ Ida/Norvald	One must fulfil the project requirement. Chapter 5 One must deliver and pass at least 5 of the 8 theory assignments.
8	Friday 09:15 – 11:00	Link Layer & LAN (cont)	R1	Kjersti	Chapter 5
8	**Sunday 24:00**	**Deadline** for **ALL** programming labs - Delivery in "It's learning" **NB! NB! NB!**			
9	**NOTE:**	**No lectures from textbook in week 9.**			
9-10	Mon – Fri 08:15 – 16:00	Project design (KTN1)	P15 - Rall	Assistants/ Norvald	
10	Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	Wireless Networks Theory Assignment 5: *Link Layer*	R1 R1	Kjersti Assistants/ Ida/Norvald	Chapter 6 One must deliver and pass at least 5 of the 8 theory assignments.
10	Friday 09:15 – 11:00	Wireless Networks (cont)	R1	Kjersti	Chapter 6 Chapter 8.8 and 8.8.1
10	**Friday 16:00**	**Deadline** for KTN1 – Project Design		Assistants/ Magnus	Show project design to course assistants for approval, at P15.
11-12	Mon – Fri 08:15 – 16:00	Project implementation (KTN2)	P15 - Rall	Assistants/ Norvald	
11	Thursday 12:15 – 14:00 Thursday 14:15 – 15:00	Multimedia Networking Theory Assignment 6: *Wireless and Mobile Networks*	R1 R1	Kjersti Assistants/ Ida/Norvald	Chapter 7 One must deliver and pass at least 5 of the 8 theory assignments.
11	Friday 09:15 – 11:00	Multimedia Networking (cont)	R1	Kjersti	Chapter 7
12	**NOTE:**	**No lecture from textbook in week 12 or 13.**			
12	Thursday 14:15 – 15:00	Theory Assignment 7: *Multimedia networking*	R1	Assistants/ Ida/Norvald	One must deliver and pass at least 5 of the 8 theory assignments.
12	**Friday 16:00**	**Deadline** for KTN2 - Project implementation		Assistants/ Magnus	Show project impl. to course assistants for approval, at P15.
13	Thursday 14:15 – 15:00	Theory Assignment 8: *Security in Computer Networks*	R1	Assistants/ Ida/Norvald	Tuition. One must deliver and pass at least 5 of the 8 theory assignments.
14	Thursday 12:15 – 14:00	Course Content Revisit	R1	Kjersti	
14	Friday 09:15 – 11:00	Course Content Revisit Information about Exam	R1	Kjersti Norvald	
21	22 May	Final exam, 09:00-13:00			