General Information:

Name of Course: # COMPUTER NETWORKS II.

Course Code:	PMRRTNB228HA
Semester:	5th
Number of Credits:	5
Allotment of Hours per Week:	2 Lectures, 3 practical classes /Week
Evaluation:	Exam (with grade)
Prerequisites:	**Computer Networks I.**

Instructor: **Gábor GYURÁK, assistant lecturer**
Office: H-7624 Pécs, Boszorkány u. 2. Office N^o B-144
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Introduction, General Course Description:
This course is intended to help students understand the mechanisms of upper OSI layers.
We will focus on an overview of network, transport and application layers. Students who successfully complete this course will have a concept and knowledge building, operating and managing computer networks. Students will also have hands-on experience in building computer networks, configuring active network devices, switches, routers through lab sessions.

Learning Objectives:
Students who successfully complete this course will have a comprehensive overview of computer networks as well as more in depth understanding of a number of focus areas that they select throughout the course. Furthermore, students will have hands-on experiences in computer networks.
At the end of the semester, the students will be able to:
- design physical and logical plans of LAN networks,
- calculate with IP addresses, making subnets,
- select devices appropriate to the network requirements,
- build and configure SOHO networks,
- build and configure enterprise networks,
- configure routing and switching.

Methodology:
- **Lectures**: discussion and lectures on computer networks theory.
- **Practical class**: will give an introduction of planning, building, programming, operating and troubleshooting computer networks.

Schedule:

Week	Lecture	Practical class
Week 1	Course introduction, orientation	CMS registration, laboratory guide
Week 2	Internet architecture	Network simulation
Week 3	Application layer I.	IPv4 protocol and addressing scheme
Week 4	Application layer II.	Protocol technology
Week 5	Application layer III.	Network devices
Week 6	Transport layer I.	Routing I.
Week 7	Transport layer II.	Routing II.
Week 8	Transport layer III.	*1st test*
Week 9	*Fall break – no classes*	
Week 10	Network layer I.	Routing III.

Computer networks II.
Course Code: PMRRTNB228HA
Semester: Fall 2017/2018 1.

Course Syllabus
Schedule : Wednesday, 07.45 – 12.00
Location: PTE MIK, A-214

Week 11	Network layer II.	Basic internet services
Week 12	Data link layer	Network address translation
Week 13	Wireless networks	Virtual networks
Week 14	*Homework presentation*	*2ⁿᵈ test*
Week 15	*Pre-exam*[*]	

[*] Pre-exam can be done during the Study Period in case the Student has met the requirements of the attendance and successfully performed the homework presentation.

Attendance:

Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

Evaluation + Grading:

The course grade is determined as a combination of study-period performance (attendance, tests, homework) and the final-exam (in some cases final-exam is replaceable with pre-exam).

All exams and tests are closed-book and closed-notes. A student with a proper excuse of being absent from the examination must inform and get a permission from the teacher prior to the time of examination. Any students who do not take the examination at the scheduled time will receive a zero score.

Grading will follow the course structure with the following weight:
10% - Class attendance, class activity
20% - 1ˢᵗ test
20% - 2ⁿᵈ test
10% - Homework presentation
40% - Final Exam (or pre-exam)

Grade:	5	4	3	2	1
Evaluation in percent:	89%-100%	76%-88%	63%-75%	51%-62%	0-50%

PTE Grading Policy:

Information on PTE's grading policy can be found at the following location:
www.pte.hu

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

Required:
1. Presentation slides (Moodle CMS)
2. James F. Kurose, Keith W. Ross - Computer Networking: A Top-Down Approach 6ᵗʰ Edition, 2012. (ISBN-10: 0132856204)

More:
1. Andrew S. Tanenbaum, David J. Wetherall - Computer Networks (5th Edition), 2010. (ISBN-10: 0132126958)
2. Larry L. Peterson, Bruce S. Davie - Computer Networks: A System Approach, 2011. (ISBN-10: 0123850592)