Introduction to internet technologies - course description

General information

Course name	Introduction to internet technologies
Course ID	11.3-WE-BizElP-WdTI-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	E-business
Education profile	practical
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2019/2020

Course information

Semester	2
ECTS credits to win	2
Course type	obligatory
Teaching language	english
Author of syllabus	• dr hab. inż. Marcin Mrugalski, prof. UZ

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	30	2	-	-	Credit with grade

Aim of the course

Student is able:

- Explain network technologies.

- Describe router hardware.

- Explain how switching operates in a small to medium-sized network.

- Design an IPv4 and IPv6 addressing scheme.

- Configure initial settings on a network device.

Prerequisites

None

Scope

ISO/OSI model, TCP/IP, Configure a Network Operating System, Network Protocols and Communications, Network Access, Ethernet, Network Layer, Static and dynamic routing, IPv4 and IPv6 Addresing, Subnetting IP Networks, VLSM, Transport Layer, Application Layer, Ruters and switches configuration.

Teaching methods

Lecture, laboratory exercises

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Can characterize and point out the differences between static and dynamic routing.		• a test	• Lecture
Can creatively develop the division of IP address space into subnets using VLSM technique.		• a test	
Knows the structure and can carry out an advanced configuration process of routers and switches.		• a test	• Lecture
Can choose the proper routing protocol necessary for the optimal functioning of the routing inside and between autonomous systems.		• a test	• Lecture
Can characterize routing protocols operating according to a distance vector and link state.		• a test	• Lecture
Can implement class and classless routing in computer networks.		• a test	

Assignment conditions

Lecture – the passing condition is to obtain a positive mark from the final test.

Laboratory – the passing condition is to obtain positive marks from all laboratory exercises to be planned during the semester.

Calculation of the final grade: lecture 50% + laboratory 50%

Recommended reading

1. Graziani R., Johnson A.: CCNA2 Routing Protocols and Concepts: CCNA Exploration Companion Guide, Cisco Networking Academy, Indianapolis, Indiana, 2012.

2. Lewis W.: LAN Switching and Wireless: CCNA Exploration Companion Guide, Cisco Networking Academy, Indianapolis, Indiana, 2012.

3. Vachon B., Graziani R.: Accessing the WAN: CCNA Exploration Companion Guide CCNA Exploration Companion Guide, Cisco Networking Academy, Indianapolis, Indiana, 2012.

Further reading

Notes

Modified by dr hab. inż. Marcin Mrugalski, prof. UZ (last modification: 09-12-2019 23:18)

Generated automatically from SylabUZ computer system