Óbudai University	Alba Regia Technical Faculty

Name and code of the subject: **Routing and Switching in Computer Networks**
NRKRSAKTND **ECTS:*2***

Faculties where the subject is taught: **NIK, KVK, KGK**

Responsible teacher:	Dr. Nagy Rezső	Teacher:	Schilling János

Pre-requirements: (code)		

Weekly:	Lecture: 2	Practice.: 0	Lab practice: 1	Consultation:
Type of evaluation:	practice grade			

Curriculum

Aim: This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

Topic	
Lecture + practice	**Number of hours**
1. Introduction to Switched Networks	2+1
2. Basic Switching Concepts and Configuration	2+1
3. Virtual LANs	2+1
4. Routing Concepts	2+1
5. Inter-VLAN Routing	2+1
6. Static Routing	2+1
7. Routing Dynamically	2+1
8. Single-Area OSPF	2+1
9. Access Control Lists	2+1
10. DHCP	2+1
11. Network Address Translation for IPv4	2+1
12. Case Study	2+1
13. Practice Exams	2+1
14. Final Exam	2+1

Mid-term requirements:

Chapter tests (min. 80%)

Missed class coverage: continuous

Evaluations: Chapter tests, Practice exams and Final exam

References:

online material