

Course Name : Server Maintenance							
Course Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab. (hours/week)	Credits	ECTS
CMP 321	B	Fall	2.00	0.00	2.00	3.00	6.00
<b>Lecturer</b>		Sokol Shurdhi, Msc					
<b>Assistant</b>		Edlir Spaho, MSc					
<b>Course language</b>		Albanian					
<b>Course level</b>		Bachelor					
<b>Description</b>		With the help of lectures, lab work, and practice the student will gain the knowledge needed to plan, configure, use, and administer Windows Server systems. Basics for key knowledge of installation, management, "troubleshooting", as well as the use of basic services for Windows Server systems will be provided for the version of Windows Server 2008. In the second part of the course will be explained theoretically and practically, through virtual laboratories, migration to Windows Server 2012 version. Essential parts will be the new specifications of Windows Server 2012, as well as new work practices by new administrators. The finalization of the course will be the presentation of infrastructure and management innovations for the latest version; Windows Server 2016					
<b>Objectives</b>		The main objectives of this course are: 1. Understand and practice to plan, configure, use, and manage Windows Server systems. 2. Basic knowledge of installation, management, "troubleshooting", as well as the use of basic services for Windows Server systems. Handling the practical part will be enabled by setting up a server machine based on operating systems.					
<b>Core Concepts</b>		1. Installing Windows Server 2012 R2. 2. Introduction to Server Roles. 3. Comparison of Physical Servers and Virtual Servers. 4. Selection of hardware resources on the Server 5. Identify methods for installing Windows Server ... etc.					
Course Outline							
Week	Topic						
1	1 Server overview • A brief history and general knowledge of the subject. • Explains the importance of servers in day-to-day operations and in the future.						
2	2 Server room physical infrastructure • Elements of Physical Infrastructure						
3	3 Manage Windows Server 2012 R2 • Manage equipment and equipment drivers. • Manage services • Use the control panel						
4	4 Storage space management • Identification of "storage" technologies • Access to Redundant Arrays for Independent Disks • Understand the structure of Disk						
5	5 Monitoring and troubleshooting problems on the server • Understand performance • Use Event Viewer • Boot-up / System boot • Introduction to business continuity • Introduction to problem solving methodology.						
6	6 Backup and recovery processes • Types of Backups • Backup Rotations • Shadow Copies • Pre-Boot Recovery Tools / Pre-Boot Recovery Utilities						
7	7 Essential Services in Windows Server 2012 R2 • See objects • Introduction to groups • Introduction to Introducing Domains, Trees and Forests, Organizational Units • Access to Directory services in Active Directory • Introduction to Group policies						
8	8 Semi-final exam						
9	9 File and printing services • Access to separate NTFS drivers and folders • An overview of printers • Activation of audit						

<b>10</b>	10 Most Common Network Services in Windows and Applications • Web Server access • Understand remote access • Introduction to remote administration • Understand server virtualization
<b>11</b>	11 Understanding Active Directory • Introduction to AD
<b>12</b>	12 Services Directory AD / Active Directory Domain Services (AD DS) • Active Directory Domain Services (DS) / Services in AD domains
<b>13</b>	13 Active Directory Certificate Services (AD CS) • Active Directory Certificate Services (CS) / AD certificate services
<b>14</b>	14 Active Directory federated services (AD FS) • Active Directory Federation Services (FS) / AD federated services • Active Directory Rights Management Services (RMS) / AD service management rights • Active Directory Lightweight Directory Services (LDS) / Services directory "lightweight" AD
<b>15</b>	15 Scheduling and automation of works
<b>16</b>	Final Exam
<b>Prerequisites</b>	The student must attend the course at a minimum rate of 75%.
<b>Literature</b>	• Windows Server Administration Fundamentals Microsoft® Official Academic Course
<b>References</b>	• Bazat e Menaxhimit Windows Server 2008 R2
<b>Course Outcome</b>	
<b>1</b>	At the end of this course students will be able to plan, configure, use and administer Windows Server systems.
<b>2</b>	Install and maintain equipment and utility drivers, as well as practice remote access.
<b>3</b>	Familiarity with
<b>4</b>	Be able to monitor performance, understand logs and alerts. Identify the steps in the startup process
<b>5</b>	Understand web services as well as Server virtualization
<b>6</b>	Understand business continuity. Follow the problem solving methodology

<b>Course Evaluation</b>			
<b>In-term Studies</b>	<b>Quantity</b>	<b>Percentage</b>	
Midterms	1	15	
Quizzes	0	0	
Projects	1	15	
Term Projects	0	0	
Laboratory	0	0	
Class Participation	1	10	
<b>Total in-term evaluation percent</b>		<b>40</b>	
<b>Final exam percent</b>		<b>60</b>	
<b>Total</b>		<b>100</b>	
<b>ECTS Workload (Based on Student Workload)</b>			
<b>Activities</b>	<b>Quantity</b>	<b>Duration (hours)</b>	<b>Total (hours)</b>
Course duration (Including the exam week: 16x Total hours of the course)	16	4	64
Study hours outside the classroom (Preparation, Practice, etc.)	14	5	70
Duties	1	0	0
Midterms	1	0	0
Final Exam	1	4	4
Other	0	0	0
<b>Total Work Load</b>			<b>138</b>
<b>Total Work Load / 25 (hours)</b>			<b>5.52</b>
<b>ECTS</b>			<b>6.00</b>