Утвърдил: ……..
/ доц. д-р Евгения Великова /
Утвърден от Факултетен съвет
с протокол № ..... / .....

СОФИЙСКИ УНИВЕРСИТЕТ "СВ. КЛИМЕНТ ОХРИДСКИ"

Факултет: Факултет по Математика и Информатика

Специалност: *(код и наименование)*

М	И	И	0	1	1	3		

Информатика

Магистърска програма: *(код и наименование)*

И	З	З	2	1				

Разпределени системи и мобилни технологии

УЧЕБНА ПРОГРАМА

Дисциплина:

Ф	6	4	2

Бизнес Skype комуникации

Преподавател: *Григор Тодоров*

Асистент:

Учебна заетост	Форма	Хорариум
Аудиторна заетост	Лекции	30
	Семинарни упражнения	
	Практически упражнения (хоспетиране)	30
Обща аудиторна заетост		
Извънаудиторна заетост	Доклад/Презентация	
	Учебен проект	
	Самостоятелна работа в библиотека или с ресурси	
	Контролни работи и подготовка за тях – 5 теста	45
	Подготовка за изпит	45
Обща извънаудиторна заетост		**90**
ОБЩА ЗАЕТОСТ		**150**
Кредити аудиторна заетост		**2**
Кредити извънаудиторна заетост		**2**
ОБЩО ЕСТК		**4**

№	Формиране на оценката по дисциплината[1]	% от оценката
1.	Workshops {информационно търсене и колективно обсъждане на доклади и реферати)	
2.	Участие в тематични дискусии в часовете	
3.	Демонстрационни занятия	
4.	Решаване на казуси	
5.	Текуша самостоятелна работа / контролни работи	
6.	Домашни работи	
7.	Тестова проверка – 5 текущи теста	33
8.		
9.		
10.		
11.		
12.	Изпит	67

Анотация на учебната дисциплина:

Курсът е избираем за студентите от I и II курс в магистърската програма "Разпределени системи и мобилни технологии" на направление „Информатика".

Курсът представя основните технологии в областта на бизнес комуникациите и дава специализирани знания по конфигуриране, администриране и управление на MS Skype for Business сървър. Този курс е предназначен за студенти прояващи интерес към унифицираните комункации и съпътстващите ги ИТ услуги.

Предварителни изисквания:

Студентите следва да имат основни знания в следните области: управление и администриране на сървърни операционни системи; управление на Active Directory Domain Services (AD DS); Базово разбиране на Session Initiation Protocol – SIP; Domain Name System (DNS) и технологиите на защитните стени (firewall); управление на архивирането и възстановяването на Windows Servers; опит в използването на приложения за управление и мониторинг, като Microsoft Management Console, Active Directory Users and Computers, Performance Monitor, Event Viewer, and Internet Information Services (IIS) Administration; опит в използването на мрежови приложения като Network Monitor, Telnet и NSLookup; използването на цифрови сертификати и Public Key Infractructur (PKI).

Забележка: *Предоставяните учебни материали в електронен вид, както и междинните тестове и финалния изпит са на английски език.*

[1] В зависимост от спецификата на учебната дисциплина и изискванията на преподавателя е възможно да се добавят необходимите форми, или да се премахнат ненужните.

Очаквани резултати:
След успешно преминат курс на обучение студентите ще могат да инсталират и конфигурират Skype for Business сървъри за осигуряване на унифицирани комуникации в големи корпоративни мрежи.

Учебно съдържание

№	Тема:	Хорариум
1.	**Module 1: Installing and Implementing Skype for Business Server 2015** Lessons: • Server and Service Dependencies • Planning SIP Domains • Installing Skype for Business Server 2015 • Integrating Skype for Business Server 2015 with Exchange Server and SharePoint Server **Lab A: Deploying Skype for Business Server 2015** • Creating DNS Records • Installing and Configuring Skype for Business Server 2015 • Installing Skype for Business Certificates • Configuring Exchange Server Integration **Lab B: Configuring DNS for Skype for Business 2015** • Creating DNS Records • Installing and Configuring Skype for Business Server 2015 • Installing Skype for Business Certificates • Configuring Exchange Server Integration	2 + 0 + 3
2.	**Module 2: Administering Skype for Business Server 2015** Lessons • Skype for Business Control Panel • Skype for Business Management Shell • Scripting in the Skype for Business Shell • Implementing Role Based Access Control (RBAC) • Using the Test Cmdlets • Tools for Troubleshooting Skype for Business 2015 **Lab A: Using Tools to Troubleshoot Skype for Business Server 2015** • Installing the Skype for Business Control Panel on Windows 10 • Using the Skype for Business Control Panel • Using the Skype for Business Management Shell • Using Command Shell Cmdlets to Create an RBAC Structure • Using Test Cmdlets • Capturing an IM Conversation	2 + 0 + 3

	• Performing a Network Capture by Using Message Analyzer **Lab B: Using Administrative Tools to Manage Skype for Business Server 2015** • Installing the Skype for Business Control Panel on Windows 10 • Using the Skype for Business Control Panel • Using the Skype for Business Management Shell • Using Command Shell Cmdlets to Create an RBAC Structure • Using Test Cmdlets • Capturing an IM Conversation • Performing a Network Capture by Using Message Analyzer	
3.	**Module 3: Configuring Users and Clients in Skype for Business 2015** Lessons • Configuring Users • Deploying Skype for Business 2015 Clients • Sign In, Registration, and Authentication • Configuring Skype for Business Client Policies • Configuring Skype for Business Server 2015 Settings • Managing the Skype for Business Address Book **Lab A: Configuring Users and Clients in Skype for Business 2015** • Enabling Users for Skype for Business Using the Management Shell • Troubleshooting a User Login Issue • Configuring Client Policies • Configuring the Address Book **Lab B: Configuring Policies and the Address Book in Skype for Business 2015** • Enabling Users for Skype for Business Using the Management Shell • Troubleshooting a User Login Issue • Configuring Client Policies • Configuring the Address Book	2 + 0 + 3
4.	**Module 4: Configuring and Implementing Conferencing in Skype for Business 2015** Lessons • Conferencing Features and Modalities • Integrating Skype for Business 2015 with Office Web Apps Server • Namespace Planning • Bandwidth Planning • Configuring Conferencing Settings **Lab A: Installing and Configuring the Office Web Apps Server** • Installing and Configuring the Office Web Apps Server • Configuring Skype for Business Conferencing • Validating Skype for Business Conferencing **Lab B: Configuring Conferencing in Skype for Business Server 2015** • Installing and Configuring the Office Web Apps Server • Configuring Skype for Business Conferencing	2 + 0 + 3

	• Validating Skype for Business Conferencing	
5.	**Module 5: Designing and Implementing Monitoring and Archiving in Skype for Business 2015** Lessons • Components of the Monitoring Service • Implementing Archiving • Designing an Archiving Policy • Implementing an Archiving Policy • Implementing Exchange and SharePoint Integration of Archiving **Lab A: Implementing Monitoring** • Enabling Monitoring Reports • Experiencing Archiving of an IM Session to Exchange **Lab B: Implementing Archiving** • Enabling Monitoring Reports • Experiencing Archiving of an IM Session to Exchange	2 + 0 + 3
6.	**Module 6: Implementing Additional Conferencing Options in Skype for Business Server 2015** Lessons • Conferencing Lifecycle • Designing and Configuring Audio/Video and Web Conferencing Policies • Deploying Dial-in Conferencing • Configuring a Lync Room System • Configuring Large and Broadcast Meetings **Lab A: Implementing a Conferencing Policy** • Configuring Conferencing Policies • Troubleshooting Conferencing • Configuring Dial-In Conferencing • Configuring a Lync Room System **Lab B: Configuring Additional Conferencing Modalities** • Configuring Conferencing Policies • Troubleshooting Conferencing • Configuring Dial-In Conferencing • Configuring a Lync Room System	2 + 0 + 3
7.	**Module 7: Deploying Skype for Business 2015 External Access** Lessons • External Access Overview • Configuring External Access Policies and Security • Configuring External Access Network and Certificates • Configuring Reverse Proxy • Designing Mobility in Skype for Business 2015 • Designing Federation in Skype for Business 2015 **Lab A: Designing and Implementing External User Access** • Defining the Edge Server in the Topology • Installing and Configuring the Edge Server	3 + 0 + 2

	• Installing and Configuring Reverse Proxy • Troubleshooting External Messaging **Lab B: Installing the Components for External Users** • Defining the Edge Server in the Topology • Installing and Configuring the Edge Server • Installing and Configuring Reverse Proxy • Troubleshooting External Messaging	
8.	**Module 8: Implementing Persistent Chat in Skype for Business 2015** Lessons • Designing Persistent Chat Topology • Deploying Persistent Chat • Configuring and Managing Persistent Chat **Lab A: Configuring and Experiencing Persistent Chat** • Configuring the Topology for Persistent Chat • Installing Persistent Chat • Configuring Chat Rooms and Policies • Validating the Persistent Chat Deployment • Troubleshooting Persistent Chat **Lab B: Designing and Deploying Persistent Chat** • Configuring the Topology for Persistent Chat • Installing Persistent Chat • Configuring Chat Rooms and Policies • Validating the Persistent Chat Deployment • Troubleshooting Persistent Chat	3 + 0 + 2
9.	**Module 9: Implementing Disaster Recovery in Skype for Business 2015** Lessons • Disaster Recovery in Skype for Business • Implementing Front End Pool Pairing • Other Approaches to Disaster Recovery in Skype for Business 2015 **Lab: Designing and Implementing Disaster Recovery** • Configuring Pool Pairing • Testing the Pool Failover	3 + 0 + 2
10.	**Module 10: Integrating with Skype for Business 2015 Online** Lessons • Designing Skype for Business Hybrid • Deploying Skype for Business Hybrid	2 + 0 + 0
11.	**Module 11: Implementing High Availability in Skype for Business 2015** Lessons • Front End Pool Architecture • Back End Server High Availability • High Availability for Other Component Servers **Lab: Designing and Implementing High Availability** • Configuring DNS Load Balancing • Configuring SQL Always On	3 + 0 + 2

12.	**Module 12: Planning and Implementing an Upgrade to Skype for Business 2015** Lessons • Overview of Upgrade and Migration Paths • Performing an In-Place Upgrade **Lab: Upgrading Lync Server 2013 to Skype for Business 2015** • Performing an In-Place Upgrade of Lync 2013 to Skype for Business 2015	2 + 0 + 2
13.	**Module 13: Designing the Skype for Business 2015 Topology** Lessons • Skype for Business 2015 Overview • Skype for Business Administrative Tools • Skype for Business Online **Lab: Designing and Publishing a Skype for Business 2015 Topology** • Planning the New York Server Deployment • Updating the Topology	2 + 0 + 2

Конспект за изпит

№	Въпрос
1.	Module 1: Installing and Implementing Skype for Business Server 2015
2.	Module 2: Administering Skype for Business Server 2015
3.	Module 3: Configuring Users and Clients in Skype for Business 2015
4.	Module 4: Configuring and Implementing Conferencing in Skype for Business 2015
5.	Module 5: Designing and Implementing Monitoring and Archiving in Skype for Business 2015
6.	Module 6: Implementing Additional Conferencing Options in Skype for Business Server 2015
7.	Module 7: Deploying Skype for Business 2015 External Access
8.	Module 8: Implementing Persistent Chat in Skype for Business 2015
9.	Module 9: Implementing Disaster Recovery in Skype for Business 2015
10.	Module 10: Integrating with Skype for Business 2015 Online
11.	Module 11: Implementing High Availability in Skype for Business 2015
12.	Module 12: Planning and Implementing an Upgrade to Skype for Business 2015
13.	Module 13: Designing the Skype for Business 2015 Topology

Библиография

Основна:

1. http://rsmt.it.fmi.uni-sofia.bg/moc20334/

Допълнителна:

1. Joe Schurman, Microsoft Voice and Unified Communications. Addison-Wesley Professional; 1 edition (February 25, 2009).
2. MOC # 20334A: Core Solutions of Microsoft Skype for Business 2015 – Student Handbook. Microsoft Press, 2015.
3. HP – Microsoft Alliance Literature.

Дата: 04.01.2016 г. **Съставил:** ас. Г. Георгиев