



Erasmus Course
Database SQL Programming
 Description

Vasil Levski National Military University
 Doc.: ES/2018/08
 Date: 14-08-2018
 Origin: BG VELIKO02

Country BULGARIA	Institution Vasil Levski National Military University	Course Database SQL Programming	ECTS 6.0
Service All Languages English, Bulgarian	Minimum Qualification for Lecturers <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG 6001 Level 2. Adequate pedagogical and psychological competences. Thorough knowledge of the topic taught. 		
Prerequisites for international participants: <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. Knowledge of Operational Systems. 		Goal of the Course: <ul style="list-style-type: none"> Learn the SQL Programming language. Knowledge of the main features of modern DBMS. To become a junior SQL Database Programmer by self-programming. 	

Learning outcomes	Knowledge	<ul style="list-style-type: none"> Basic concepts and models for data management. Knowledge of the main features of modern DBMS. Install, configure, manage and administer modern DBMSs. Ensure the necessary level of security with regard to access and data protection.
	Skills	<ul style="list-style-type: none"> Apply SQL statements to solve a problem. Design real databases. To install, maintain and manage modern DBMSs.
	Competences	<ul style="list-style-type: none"> Describe the principles of SQL programming. Capability to store information together in a database project. Capability of maintaining and modifying SQL databases. Export/import data from/into database project. Able to provide the required level of security of stored data in terms of access and protection of information.

Verification of learning outcomes <ul style="list-style-type: none"> Tests: At the end of each topic of the course students must complete specific practice quiz. Project: Self design of database project.
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Course Details		
Main	Recommended	Details

Original: Computer Systems and Technology Department, Artillery, Air Defense and CIS Faculty
 Date: __-__-____
 Revised by: Artillery, Air Defense and CIS Faculty Dean - Col. Assoc. Prof. Dilyan Dimitrov
 Date: __-__-____



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Topic	WH	
Introduction	10	<ul style="list-style-type: none">• Basic concepts and concepts in database theory• Database management systems• Installing SQL database• SQL environment.• Practice Quiz 1
Basics of SQL programming	20	<ul style="list-style-type: none">• SELECT and WHERE• Single Row Functions• JOINS• Group Functions• Subqueries• Practice Quiz 2
SQL Views	12	<ul style="list-style-type: none">• DML• DDL• Constrains• Views• Practice Quiz 3
SQL advanced and security features	8	<ul style="list-style-type: none">• TCL• Sequences and synonyms• Privileges and Regular expressions• Practice Quiz 4
Additional hours to increase the learning and skills outcomes		
Project	10	<ul style="list-style-type: none">• Enhancing knowledge by designing and building specific SQL database.
Total	60	

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