Syllabus

Academic Year 2020-2021

1. General information

Syllabus title	DBMS_SYLLABUS_ZHIBEK
Discipline	DBMS
Number of credits	5
Prerequisites	ICT or basic computer knowledge
Postrequisites	no
Lecturer(s)	Sarsenova Zhibek, MSc in Information Systems, MSc, senior lecturer, zhibek.sarsenova@astanait.edu.kz, no

2. Goals, objectives and learning outcomes of the course

Course goal(s)	Course goal is to provide a solid background in database managementsystems for computer science, telecommunication and information securitystudents, in preparation either for a job in industry or for more advancedcourses at the qraduate level.
Course objectives	Course objectives include:- to design methodology for databases and verify their structuralcorrectness;- to implement databases and applications software primarily in therelational model
Skills & competences	- The instructor will ensure that class time is worth your while forattendance, assuming the students have done the readings and hornework.
Course learning outcomes	By tlie end of this course students will be able to:- choose and apply appropriate methodologies and techniques to solvecorresponding tasks on the way of implementing to the kind of services pipelines.- inalyze the runtime performance of various apploaches and commands interms of the size of tlieir requests, averages, best, aud worst cases
Course instructor(s)	no

3.1 Lecture, practical/seminar/laboratory session plans

Week Number	Course Topic	Lectures (H\W)	Practice session (H\W)	Lab. sessions (H\W)	SIS (H\W)
1	introduction to dbms	1	what is dbms types. dbms types	4	lab
2	managing tables	1	relational database model	4	lab

3	introduction to postgresql	1	pl/pgsql	4	lab
4	pl/pgsql	1	control structures	4	lab
5	midterm	1	project iteration I	4	lab
6	pl/plsql	1	user-defined function	4	lab
7	exception handling	1	stored procedures	4	lab
8	cursors	1	cursors	4	lab
9	postgresql triggers	1	postgresql	4	lab
10	endterm	1	project iteration II	4	lab

3.2 List of assignments for Student Independent Study

Week Number	Assignments (topics) for Independent study	Hours	Recommended literature and other sources (links)	Submission Form
1	what is DBMS. DB types. Cases	9	books, internet resources	exercise
2	create. alter. drop. truncate. primary key. foreign key. unique. not null. er-diagrams. cardinality	9	books, internet resources	exercise
3	data types. postgresql views. postgresql views. postgresql indexes. introduction to postgresql pl/pgsql	9	books, internet resources	exercise
4	if statement. case statement. loop statement	9	books, internet resources	exercise
5	midterm, project iteration I	9	books, internet resources	exercise
6	create function. function parameter modes. function overloading, drop function	9	books, internet resources	exercise

7	handling exception. create procedure. drop procedure	9	books, internet resources	exercise
8	declaring cursors. opening cursors. opening bound cursors. using cursors. closing cursors	9	books, internet resources	exercise
9	create trigger. drop trigger. alter trigger	9	books, internet resources	exercise
10	endterm. project iteration II	9	books, internet resources	exercise

4. Student performance evaluation system for the course

Period	Assignments	Number of points	Total
1st attestation	Assignment 1 Assignment 2 Assignment 3 Assignment 4	25 25 25 25	100
2nd attestation	Assignment 6 Assignment 7 Assignment 8 Assignment 9	25 25 25 25	100
Final exam	Final exam		100
Total	0,3 * 1st Att + 0,3 * 2nd Att + 0,4*final		100

Based on the specific grade for each assignment, and the final grade, following criteria must be satisfied:

Grade	Criteria to be satisfied
A	Performs accurate calculations. Uses adequate mathematical operations without errors. Draws logical conclusions, supported by a graph. Provides detailed and correct explanations for the calculations performed.

B	Performs well calculations. Uses adequate mathematical operations with few errors. Draws logical conclusions, supported by a graph. Explains the calculations done well.
C	I tried to make calculations, but many of them are not accurate. Uses inappropriate mathematical operations, but no errors. Draws conclusions that are not supported by a graph. Provides a small explanation for the calculations performed.
D	Does inaccurate calculations. Uses inappropriate mathematical operations. Doesn't draw any conclusions on the schedule. Does not offer an explanation for the calculations performed.
F	No response. The student did not try to complete the assignment.

Achievement level as per course curriculum shall be assessed according to the evaluation chart adopted by the academic credit system

Letter Grade	Numerical equivalent	Percentage	Grade according to the traditional system
A	4,0	95-100	Excellent
A-	3,67	90-94	Excellent
B+	3,33	85-89	Good
B	3,0	80-84	Good
B-	2,67	75-79	Good
Ð¡+	2,33	70-74	Satisfactory
C	2,0	65-69	Satisfactory
C-	1,67	60-64	Satisfactory
D+	1,33	55-59	Satisfactory
D	1,0	50-54	Satisfactory
F	0	0-49	Fail