ПРИВАТНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД-ІНСТИТУТ
"УКРАЇНСЬКО-АМЕРИКАНСЬКИЙ УНІВЕРСИТЕТ КОНКОРДІЯ"
(УАУК)

PRIVATE HIGHER EDUCATIONAL ESTABLISHMENT-INSTITUTE
"UKRAINIAN-AMERICAN CONCORDIA UNIVERSITY"
(UACU)

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# DATABASE MANAGEMENT SYSTEMS
## Syllabus
## ІПІ 2.18
## CSCI-342
## Specialty: 073 Management
## Educational program "Digital Management"

Quarter/Year: Spring / 2026 ECTS Credits: 6

**Instructor: Ruslana Seleznova** US Credits: 3
Contact information:
ruslana.seleznova@ucua.edu.ur
Prerequisites: **Introduction to Programming**

### Course Description

The course, Database Management Systems, provides an introduction to the management of database systems. The course emphasizes the understanding of the fundamentals of relational systems including data models, database architectures, and database manipulations. The course also provides an understanding of new developments and trends such as Internet database environment and data warehousing. The course uses a problem-based approach to learning.

### Course Outcomes

PH3. Demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.
PH4. Demonstrate skills to identify problems and justify management decisions.
PH6. Identify skills of search, collection and analysis of information, calculation of indicators to justify management decisions.
PH8. Apply management methods to ensure the effectiveness of the organization.
PH10. Have the skills to justify effective tools to motivate the staff of the organization.
PH11. Demonstrate skills of situation analysis and communication in various areas of the organization.
PH12. Assess the legal, social and economic consequences of the organization.
PH16. Demonstrate skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.
PH17. Perform research individually and/or in a group under the guidance of a leader.

### Competencies

ЗК4. Ability to apply knowledge in practical situations.
ЗК8. Skills in the use of information and communication technologies.
ЗК11. Ability to adapt and act in a new situation.
СК7. Ability to choose and use modern management tools.
СК9. Ability to work in a team and establish interpersonal interaction in solving professional problems.
СК10. Ability to evaluate the work performed, ensure their quality and motivate the staff of the organization.

**Internationality:** The international aspect of the course includes international software and international textbooks.

**Communications**

For individual issues, students should contact the professor ONLY by given e-mail or by Moodle. In the Subject line they should put: UACUFirstNameLastName. E-mail messages will normally be answered within 24 hours.

**Note!** Only emails sent from the student's corporate email address will be answered.

**Attention!** Official and only language used for assessment activities is English. Official and only languages used for communication within the University are Ukrainian and English.

**Student Responsibilities**

**Time Commitment**

The study of technical courses is cumulative (i.e., an understanding of earlier material is necessary to grasp concepts covered later). Past experience has shown a high correlation between procrastination and low grades. Students must be committed to completing tasks on time.

Students are responsible for following the schedule, attending classes, completing assignments on time and to the required standards, and maintaining academic integrity. These responsibilities are not open for discussion with instructors or the dean's office.

**Technical Aspects**

The student is obliged to provide himself/herself with all the necessary technical equipment for the educational process (laptop or computer, webcam, headsets or headphones and microphone), as well as access to the Internet.

Only students signed-in with their own first and last name are allowed into video consultations in Zoom.

**Grading Policy**

The course is based on mastery of course outcomes. Student grades for this course will be calculated based on performance.

Note: the minimal grade to pass a subject is 60% (70% for Master courses).

**Graduate Grading Guidelines**

The assignment of a letter grade for a course is an indication of the student's overall success in achieving the learning outcomes for the course. The course letter grade may be viewed as a summary statement of the student's achievement in individual assessments (assignments & activities). These assessments are intended to identify for students their strengths as well

as those areas in need of improvement. Student work is assessed according to the guidelines below.

**Course-level Grading guidelines:**

| Grade | ECTS Grade | International Grade |
|---|---|---|
| 90% - 100% | A | 5 (Excellent) |
| 83% - 89% | B | 4 (Very Good) |
| 75% - 82% | C | 4 (Good) |
| 70% - 74% | D | 3 (Good) |
| 60% - 69% | E | 3 (Acceptable) |
| 35% - 59% | FX | Not acceptable, possible repetition of course |

**Criteria for grading:**

| ECTS grade | Requirements for the student |
|---|---|
| A | The student demonstrated a comprehensive systemic and in-depth knowledge of program material; processed basic and additional literature; obtained a solid grasp of the conceptual apparatus, methods, techniques and tools provided by the program; found creative abilities in the presentation of the educational program material both on this issue and on related modules of the course and related courses, or the student had a current control of 90-100 points |
| B | The student demonstrated good knowledge of program material; processed the basic literature, mastered the conceptual apparatus, methods, techniques and tools provided by the program, but with some inaccuracies |
| C | |
| D | The student showed mediocre knowledge of the core program material; learned information mainly from a lecture course or just one textbook; mastered only certain methods, techniques and tools provided by the program |
| E | |
| FX | The student has significant gaps in knowledge of the main program material; fragmentary mastered the basic concepts, techniques and tools; significant mistakes are made when using them |

Maximum total possible points – 450 points incl. (Midterm and Final exam are 70% of overall evaluation, where Midterm – 30% and Final – 40%)
· Test / Assignment / Project – 3/3/3 points
· Midterm exam – 135 points
· Final exam – 180 points

**Student Workload**
It is assumed that for each out of 17 class sessions a student spends about 10.5 academic hours of work. This includes 3.5 academic hours of lectures with the instructor and 7 academic hours of personal work. Personal work includes working on lecture materials.

Please pay attention that 1 academic hour equals to 40 minutes.

**Assignment Format**

• All work should be shown in time. If the student misses the deadline – the task is failed.
• Midterm covered topics from previous lectures (weeks 1-7). It included multiple choice questions and cases (essays) and took about 45 min.
• The Final exam covered all course material and included multiple choice questions and cases (essays). It lasts for 1.5 hours. Admission to the Final exam is possible only if all the tasks of the curriculum are covered.
• After the Midterm and Final is graded a student has access to the grade only. Access to the attempt, corrects answers and information whether the answer is correct cannot be granted.

**Academic dishonesty**

· Academic integrity is submitting one's own work and properly acknowledging the contributions of others. Forms of academic dishonesty include:

1. Plagiarism — submitting all or part of another's work as one's own in an academic exercise such as an examination, a computer program, or written assignment.
2. Cheating — using or attempting to use unauthorized materials on an examination or assignment, such as using unauthorized texts or notes or improperly obtaining (or attempting to obtain) copies of an examination or answers to an examination. Including the use of artificial intelligence and pre-prepared answers to the questions of tasks is prohibited (unless otherwise specified in the task itself or allowed by the instructor).
3. Facilitating Academic Dishonesty — helping another commit an act of dishonesty, such as substituting for an examination or completing an assignment for someone else.
4. Fabrication — altering or transmitting, without authorization, academic information or records.
5.

Any violation of these rules constitutes academic dishonesty and is liable to result in a failing grade and disciplinary action. In case of any academic dishonesty a student is not allowed to continue or retake the assessment activity and for the Final the unsatisfactory grade ("0") is assigned for the course total. Cases of the academic dishonesty are not considered by the Academic Council.
Midterm and Final are valid only if they are taken on-campus (room defined by the dean's office) and on UACU's computer/laptop or online on the student's computer/laptop using Zoom and other conditions defined by the dean's office to avoid the cases of academic dishonesty. Students who will not meet this requirement will be expelled from the course with grade "0".
In case of missed Midterm or Final exam (for a valid reason like sickness or an emergency) a request to repeat the exam is possible. Permit to repeat a midterm or final exam is done through a letter to the dean's office with request and approval of subject lecturer.
Submission or retaking of any assessment activities after deadlines are forbidden.

**Submission & Return Policy**

Assignments must be submitted to the professor on or before the due date indicated in the Course Schedule. The assignments submitted after the due dates receive zero points.

****** NO MAKE –UP QUIZZES AND EXAMS ******

**Schedule**

| Lecture | Research Projects | Assignments Due | Points |
|---|---|---|---|
| 1 | Database Introduction | Test / Assignment | 3/3/3 |
| 2 | Database Environment | Test / Assignment | 3/3/3 |
| 3 | Database Development Procedures | Test / Assignment | 3/3/3 |
| 4 | Database Modeling | Test / Assignment | 3/3/3 |
| 5 | Enhanced ER Model | Test / Assignment | 3/3/3 |
| 6 | Relational Model and Logical Database Design. Physical Database Design | Test / Assignment | 3/3/3 |
| 7 | Physical Database Design | Test / Assignment | 3/3/3 |
| | MidTerm<br>30% out of total amount of points for the course | Test | 135 |
| 8 | Introduction to SQL | Test / Assignment | 3/3/3 |
| 9 | Advanced SQL | Test / Assignment | 3/3/3 |
| 10 | Client/Server Database Environment | Test / Assignment | 3/3/3 |
| 11 | Internet Database Environment | Test / Assignment | 3/3/3 |
| 12 | Data Ware housing | Test / Assignment | 3/3/3 |
| 13 | Project Work | Test / Assignment | 3/3/3 |
| 14 | Mobile applications data bases | Test / Assignment | 3/3/3 |
| 15 | Project Work | Test / Assignment | 3/3/3 |
| | Final<br>40% out of total amount of points for the course | Test | 180 |

## Recommended Materials

Microsoft Access 2016 Part 1
Microsoft Access 2016 Part 2
Microsoft Access 2016 Part 3: Advanced
Database Concepts in Biomedical Informatics · Assaf Gottlieb, PhD. Required Reading. 2021
Kroenke, D., Auer, D., Vandenberg, S. L., Yoder, R.C. (2020)
Cybernetics and Systems Analysis ISSN: 1060-0396 (Print) 1573-8337 (Online)

** The above schedule and procedures are subject to change in the event of extenuating circumstances.*

Протокол засідання кафедр № 1 від 27.01.2026 року

Проректор з навчально-методичної роботи Л.І.Кондратенко

Завідувач кафедри А.В.Кінаш

Викладач Р.В.Селезньова