УКРАЇНСЬКО-АМЕРИКАНСЬКИЙ
УНІВЕРСИТЕТ КОНКОРДІЯ

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Analysis and Design of Informational Systems
Syllabus
ADIS-111
Specialty: 073 "Management"
Educational program "nformation Technology Management"

Quarter/Year: Spring/2023
Instructor: Ruslana Selezneva
ECTS Credits: 6
US Credits: 3

Contact information:
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Prerequisites: IT Applications, Statistics, Data Base Managment Systems

Course Description

The course allows the student to develop expertise in using informational systems to solve problems which occurs in economics, business and real life. The informational system as a tool is emphasized by the in-depth study of data processing, data analysis, and data management systems. Students carry out projects using each category of application package.

Course Outcomes

Upon successful completion of this course, students will be able to:

PH3. Demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.
PH4. Demonstrate skills to identify problems and justify management decisions.
PH5. Describe the content of the functional areas of the organization.
PH6. Identify skills of search , collection and analysis of information , calculation of indicators to justify management decisions.
PH7. Demonstrate organizational design skills.
PH8. Apply management methods to ensure the effectiveness of the organization.
PH11. Demonstrate skills of situation analysis and communication in various areas of the organization.
PH16. Demonstrate skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.

Competencies

ЗК4. Ability to apply knowledge in practical situations.
ЗК8. Skills in the use of information and communication technologies.

3K9. Ability to learn and master modern knowledge.
CK1. Ability to identify and describe the characteristics of the organization.
CK8. Ability to plan the activities of the organization and manage time.
CK12. Ability to analyze and structure the problems of the organization, to form sound decisions.

Internationality: international textbooks and international software

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.

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.

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 lectures 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%.

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 – 225 points incl. (Midterm and Final exam are 60% of overall evaluation, where Midterm – 20% and Final – 40%)

· Test / Assignment / Project – 3/3 points (several times during the course)

· Midterm exam – 45 points

· Final exam – 90 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 .

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 1-6). 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.
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.

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 (for each assessment activity)
1	Topic Introduction to Informational Systems Theory	Review Lecture Test / Assignment	3/3
2	Topic Types of Informational Systems	Review Lecture Test / Assignment	3/3
3	Topic Analysis of modern trends in hardware development that led to the emergence of cloud computing technologies. Basic information about the emergence, development and use of cloud computing technologies	Review Lecture Test/Project	3/3
4	Topic The main modern trends in the development of hardware, the basic requirements for the infrastructure of cloud computing.	Review Lecture Test / Assignment	3/3
5	Topic Modern trends in the development of infrastructure solutions, which led to the emergence of the concept of cloud computing, the growth of computer performance, multiprocessor and multi-core computing systems, the development of blade systems.	Review Lecture Test / Assignment	3/3
6	Topic Virtualization. Services. The main directions of development of cloud computing.	Review Lecture Test / Assignment	3/3
10 a.m. February 27 - 8 p.m. February 28	Midterm Exam (20%)		45
8	Topic	Review Lecture Test / Assignment	3/3

	The main types of virtualization. Review of software products of the largest virtualization companies.		
9	Topic Virtual machine. Server virtualization. Application virtualization. Virtualization of views (workplaces). Varieties of hypervisor architecture.	Review Lecture Test / Assignment	3/3
10	Topic Virtual machine. Server virtualization. Application virtualization.	Review Lecture Test / Assignment	3/3
11	Topic The main models for the provision of cloud computing services. Software as a Service (SaaS) Platform as a Service (PaaS) Infrastructure as a Service (IaaS), other cloud services (XaaS).	Review Lecture Test / Assignment	3/3
12	Topic Differences between cloud and cluster (distributed, or - Grid technologies) computing	Review Lecture Test / Assignment	3/3
13	Topic Cloud computing economics.	Review Lecture Test / Assignment	3/3
14	Topic Project	Review Lecture Test / Assignment	3/3
15	Topic The main advantages and disadvantages of cloud computing models and solutions proposed on their basis	Review Lecture Test / Assignment	3/3
16	Topic Project		3/3
10 a.m. March 30 - 8 p.m. March 31	Final Exam (40%)		90
		Total	225

Recommended Materials

Algorithms to Live By: The Computer Science of Human Decisions. **Author: Brian Christian and Tom Griffiths, 2022**

Arlow, J. and Newstadt, I. (2005) UML 2 and the unified process: Practical object-oriented analysis and design (Addison-Wesley Longman)

Chaos Monkeys: Obscene Fortune and Random Failure in Silicon Valley. Author: Antonio Garcia Martinez, 2022

Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future. **Author: Ashlee Vance, 2022**

Feng, J. H., Hochheiser, H., Lazar, J. (2009) Research methods in human-computer interaction (John Wiley & Sons)

Jashapara, A. (2004). Knowledge Management: An integrated Approach. Prentice Hall.

Pickard, A.J. (2007) Research methods in information (Facet Publishing)

Rosenfeld, L. and Morville, P. (2007) Information architecture for the World Wide Web (Sebastopol, O'Reilly)

The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future. **Author: Kevin Kelly, 2022**

The Phoenix Project: A Novel About IT, DevOps, and Helping Your Business Win. **Author: Gene Kim, Kevin Behr, and George Spafford, 2022**

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

Протокол засідання кафедр № 1 від 24.01.2023 року

Проректор з навчально-методичної роботи Л.І.Кондратенко

Завідувач кафедри Л.В.Жарова

Викладач Р.В.Сєлєзньова