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

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

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IT Applications
Master Degree
Syllabus
MBA 514
ЗП 1.1
Specialty: 073 "Management"
Educational program "Business Administration"

Instructor: **Ruslana Selezneva, Ph.D.**
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ECTS Credits: 6
US Credits: 3

Course Description
IT Applications is the study about IT applications for business and management. IT Applications studies the theory of computation and the practice of designing software systems. IT local business-functional applications embedded in business processes, activities, products and/or services. Research and development work in IT area performed to create a situation-specific bridge between new or existing IT hardware and software technologies and the information needs/wants of a customer. The combination of proper hardware, software, and tailored application delivers a well-rounded IT solution for the customer's problem

Learning Outcomes
Upon successful completion of this course, students will be able to:
PH.1. Critically comprehend, select and use the necessary scientific, methodological and analytical tools for management in unpredictable conditions;
PH.2. Identify problems in the organization and justify methods for solving them;
PH.3. Design effective management systems for organizations;
PH.4. Substantiate and manage projects, generate business ideas;
PH.8. Use specialized software and information systems to solve management problems of the organization.

Competences
ЗК1. Ability to conduct research at the appropriate level;
ЗК3. Information skills and communication technologies;
ЗК7. Ability to abstract thinking, analysis and synthesis.
СК7. Ability to develop projects, manage them, show initiative and entrepreneurship;
СК9. Ability to analyze and structure the problems of the organization, make effective management decisions and ensure their implementation;
СК10. Ability to manage the organization and its development.
Internationality: international software, 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.

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. (Midtermand 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

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 1.5 hours.

•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.

Academic dishonesty

·Academic integrity is submitting one's own work and properly acknowledging the contributions of others. Any violation of this principle constitutes academic dishonesty and is liable to result in a failing grade and disciplinary action. 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.

·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

Week #	Research Projects	Assignments Due	Points
Lecture 1	Concepts of data, information, and computer-based information systems, impact of information technology on business (business data processing, intra-organizational and inter-organizational communication by using network technology, business process, and knowledge process outsourcing)	Test/Assignment	3/3
Lecture 2	**Types of Information Systems**	Test/Assignment	3/3
Lecture 3	**Transaction Processing System (TPS)**	Test/Assignment	3/3
Lecture 4	**Management Information System (MIS)**	Test/Assignment	3/3
Lecture 5	**Decision Support System (DSS)**	Test/Assignment	3/3
Lecture 6	**Knowledge Management System (KMS)**	Test/Assignment	3/3
Lecture 7	Recent trends in information technology (brief ideas): enterprise computing, mobile communication, smart card, AI	Test/Assignment	3/3
	Midterm (8th class) 20% out of total amount of points for the course	Test	36
Lecture 9	Data Base Management System for business (part 1) Concept of Data Base Management System, Important terms of Database [including Entity, Attribute, Primary Key, Foreign Key, Candidate Key, Referential integrity, Table, Views, Data Dictionary]. Types of databases [hierarchical, network, and relational]. Basic ideas of Data Warehouse and Data mining.	Test/Assignment	3/3
Lecture 10	Data Base Management System for business (part 2) Creation of Tables, Defining Primary key; Multiple Table Handling – Defining Relationship, Foreign Key; Generating simple and Conditional	Test/Assignment	3/3

	Queries. Types of queries [Update, Delete, Append]; Designing Forms and Reports.		
Lecture 11	Introduction to Internet for business applications Meaning of Internet. Concepts of Internet Intranet and Extranet, IP Address (IPv4, IPv6), URL, Domain name System. Internet Protocols - TCP/IP, UDP, FTP, TELNET,(brief ideas only). HTML, DHTML, AND XML	Test/Assignment	3/3
Lecture 12	Data Communication: Concept of Data communications, Transmission Modes [Simplex, Half-Duplex, Full Duplex, Serial, Parallel, Synchronous, Asynchronous], Communication Media. Wireless and satellite communication, Wireless Broadband, WAP, Network components – Bridge, Switch, Router, Gateway. Computer Networks: Network Concept, Types: LAN, WAN, MAN, VAN, SAN.	Test/Assignment	3/3
Lecture 13	**Cloud IT solutions for business**	Test/Assignment	3/3
Lecture 14	Security Issues for business Security threats - Virus, Trozan, Hacking, Spam. Security Measures - Firewall, Antivirus software, Digital Signature. Concept of data Encryption & Decryption. Symmetric and asymmetric encryption. Digital Envelope	Test/Assignment	3/3
Lecture 15	Financial Accounting Package and its Implementation	Test/Assignment	3/3
Lecture 16	**Artificial Intelligence (AI) for business**	Test/Assignment	3/3
	Final (17^{th} class) 30% out of total amount of points for the course	Test	54

Recommended Materials

1. *Alter, S (2013).* Work System Theory: Overview of Core Concepts, Extensions, and Challenges for the Future. *Journal of the Association for Information Systems. 14 (2): 72–121.* doi:10.17705/1jais.00323.
2. Alter, S. (2003) 18 Reasons Why IT-Reliant Work Systems Should Replace 'The IT Artifact' as the Core Subject Matter of the IS Field, Communications of the Association for Information Systems, 12(23), Oct., pp. 365–394, http://aisel.aisnet.org/cais/vol12/iss1/23/
3. Alter, S. (2006) The Work System Method: Connecting People, Processes, and IT for Business Results. Works System Press, CA
4. *Bacon, C. James; Fitzgerald, Brian (2001-04-01).* A systemic framework for the field of information systems. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems. 32 (2): 46–67.* doi:10.1145/506732.506738. ISSN 0095-0033. S2CID 15687595.
5. Beynon-Davies P. (2009). Business Information Systems. Palgrave, Basingstoke
6. *Bulgacs, Simon (2013).* The first phase of creating a standardised international innovative technological implementation framework/Software application. *International*

Journal of Business and Systems Research. 7 (3): 250. doi:10.1504/IJBSR.2013.055312. Retrieved 2015-11-02.
7. D'Atri A., De Marco M., Casalino N. (2008). Interdisciplinary Aspects of Information Systems Studies, Physica-Verlag, Springer, Germany, pp. 1–416, doi:10.1007/978-3-7908-2010-2 ISBN 978-3-7908-2009-6
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10. information system. *BusinessDictionary.com. Archived from* the original *on 2020-08-11*. Retrieved 2014-09-21.
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12. Information Systems. *Principia Cybernetica Web.*
13. Information Technology vs Information Systems: What's The Difference?. *CityU of Seattle. 2020-01-16*. Retrieved 2021-11-13.
14. Jessup, Leonard M.; Joseph S. Valacich (2008). Information Systems Today (3rd ed.). Pearson Publishing. Glossary p. 416
15. Kroenke, D M. (2008). Experiencing MIS. Prentice-Hall, Upper Saddle River, NJ
16. Kroenke, D. M. (2015). MIS Essentials. Pearson Education
17. Laudon, K.C. and Laudon, J.P. Management Information Systems, Macmillan, 1988.
18. *Marc S. Silver, M. Lynne Markus,* Cynthia Mathis Beath *(Sep 1995).* The Information Technology Interactive Model: A Foundation for the MBA Core Course. *MIS Quarterly: 361–390.*
19. *Neumann, Gustaf; Sobernig, Stefan; Aram, Michael (February 2014). Evolutionary Business Information Systems. Business and Information Systems Engineering. 6 (1): 33–36.* doi:10.1007/s12599-013-0305-1. S2CID 15979292.
20. *O'Hara, Margaret; Watson, Richard; Cavan, Bruce (1999).* Managing the three levels of change. *Information Systems Management. 16 (3): 64.* doi:10.1201/1078/43197.16.3.19990601/31317.9. Retrieved 25 November 2018.
21. O'Brien, J A. (2003). Introduction to information systems: essentials for the e-business enterprise. McGraw-Hill, Boston, MA
22. *Piccoli, Gabriele; Pigni, Federico (July 2018).* Information systems for managers: with cases *(4.0 ed.). Prospect Press. p. 28.* ISBN 978-1-943153-50-3. Retrieved 25 November 2018.
23. Rainer, R. Kelly Jr, and Casey G. Cegielski. Introduction to Information System: Support and Transforming Business Fourth Edition. New Jersey: John Wiley and Sons, Inc., 2012. Print.
24. Rockart et al. (1996) Eight imperatives for the new IT organization Sloan Management review.
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** The above schedule and procedures are subject to change in the event of extenuating circumstances.*

Протокол засідання кафедр № 1 від 24.01.2024 року

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