УКРАЇНСЬКО-АМЕРИКАНСЬКИЙ
УНІВЕРСИТЕТ КОНКОРДІЯ

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IT Applications

Syllabus
ITA-331

Specialty: 073 "Management"
Educational program "Management"

Quarter/Year: Spring/2023 ECTS Credits: 6
Instructor: Ruslana Seleznova US Credits: 3
Contact information:
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Prerequisites: CS

Course Description

Short description of the course
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

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.
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.
PH9. Demonstrate skills of interaction, leadership, teamwork.
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.

PH14. Identify the causes of stress , adapt yourself and the members of the team to the stressful situation, finding ways to neutralize it.
PH15. Demonstrate the ability to act socially responsibly and socially consciously on the basis of ethical considerations (motives), respect for diversity and interculturalism.
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
3K8. Skills in the use of information and communication technologies.
3K10. Ability to conduct research at the appropriate level.
3K12. Ability to generate new ideas (creativity).
CK5. Ability to manage the organization and its departments through the implementation of management functions.
CK8. Ability to plan the activities of the organization and manage time.
CK15. Ability to form and demonstrate leadership qualities and behavioral skills.

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. (Midterm and Final exam are 60% of overall evaluation, where Midterm – 20% and Final – 40%)
· Test / Assignment / Project – 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 textbooks, video lectures, chats, assignments, tests.
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.
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

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	
Lecture 3	**Transaction Processing System (TPS)**	Test/Assignment	3/3
Lecture 4	**Management Information System (MIS)**	Test/Assignment	
Lecture 5	**Decision Support System (DSS)**	Test/Assignment	
Lecture 6	**Knowledge Management System (KMS)**	Test/Assignment	
Lecture 7	Recent trends in information technology (brief ideas): enterprise computing, mobile communication, smart card, AI	Test/Assignment	
	Midterm (8^{th} class) 20% out of total amount of points for the course	Test	45
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 Queries. Types of queries [Update, Delete, Append]; Designing Forms and Reports.	Test/Assignment	3/3
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) 40% out of total amount of points for the course	Test	90

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
8. Information Services. Directory. Australian Government. 2 June 2017. Archived from the original on 27 March 2022. Retrieved 6 March 2021.
9. Information Services. Ramsey County. 12 September 2015. Retrieved 6 March 2021.
10. information system. BusinessDictionary.com. Archived from the original on 2020-08-11. Retrieved 2014-09-21.
11. Information Systems. 2020-11-12.
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.
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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.
25. SEI Report, Glossary. Archived from the original on September 3, 2007. Retrieved 2013-04-02.
26. Stair, Ralph (2020). Principles of Information Systems. George Reynolds (14th ed.). Mason, OH: Cengage. ISBN 978-0-357-11252-6. OCLC 1305839544.
27. The Joint Task Force for Computing Curricula 2005. Computing Curricula 2005: The Overview Report (pdf) Archived 2014-10-21 at the Wayback Machine
28. Vladimir Zwass (2016-02-10). Information system. Britannica.
29. What is Information Systems or Information Services (IS)?. Definition from Techopedia. Retrieved 6 March 2021.
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** The above schedule and procedures are subject to change in the event of extenuating circumstances.*

Протокол засідання кафедр № 1 від 24.01.2023 року

Проректор з навчально-методичної роботи Л.І.Кондратенко

Завідувач кафедри А.В.Кінаш

Викладач Р.В.Селезньова