



IT APPLICATIONS

Syllabus

III 2.9

Specialty: 073 “Management”

Educational program “Information Technology Management”

Quarter/Year: Spring/2022

ECTS Credits: 6

Instructor: Ruslana Selezneva, Ph.D

US Credits: 3

Contact

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Prerequisites: Computer Science

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.

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.
- 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 – 3/3 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 home work assignments, tests and working on the course 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.

Academic dishonesty

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

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.

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.

Facilitating Academic Dishonesty – helping another commit an act of dishonesty, such as substituting for an examination or completing an assignment for someone else.

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 |
|------------------|---|-------------------------------------|---------------|
| Lecture 1 | <i>Introduction to IT Applications</i> system. Subject, method, objects of Introduction to IT Applications | Review Lecture Test / Assignment | 3/3 |
| Lecture 2 | <i>Wrike</i> Do registration and create project on <i>Wrike</i> Tool: <i>Wrike</i> | Review Lecture Test / Assignment | 3/3 |

| | | | |
|------------|--|-------------------------------------|-----|
| Lecture 3 | <i>Zoho People</i> Intro to <i>Zoho People</i> system. Do registration and create a project on <i>Zoho People</i> Tool: <i>Zoho People</i> | Review Lecture Test/Project | 3/3 |
| Lecture 4 | <i>Bitrix 24</i> Intro to <i>Bitrix 24</i> system. Do registration and create project on <i>Bitrix 24</i> Tool: <i>Bitrix 24</i> | Review Lecture Test / Assignment | 3/3 |
| Lecture 5 | <i>CRM systems</i> Types of CRM systems, application area, examples Tool: Cloud CRM | Review Lecture Test / Assignment | 3/3 |
| Lecture 6 | <i>ERP systems</i> Types of ERP systems, application area, examples Tool: ERPnext | Review Lecture Test / Assignment | 3/3 |
| Lecture 7 | <i>MS Access</i> Data bases on MS Access Tool: MS Access | Review Lecture Test / Assignment | 3/3 |
| Lecture 8 | MidTerm | Review Lecture Test / Assignment | 45 |
| Lecture 9 | <i>MS Access</i> Data bases on MS Access. Tables, reports, queries, user forms Tool: MS Access | Review Lecture Test / Assignment | 45 |
| Lecture 10 | <i>MS Access</i> Macros, module, SQL Tool: MS Access | Review Lecture Test / Assignment | 3/3 |
| Lecture 11 | <i>R Studio</i> Application area and main principals of usage Tool: R Studio | Review Lecture Test / Assignment | 3/3 |
| Lecture 12 | <i>R Studio</i> R Studio for advanced user Tool: R Studio | Review Lecture Test / Assignment | 3/3 |
| Lecture 13 | <i>Internet Analytics</i> Main principles and application area for internet analytics Tool: <i>Google Analytics</i> | Review Lecture Test / Assignment | 3/3 |
| Lecture 14 | <i>Project</i> Tool: <i>R Studio</i> | Review Lecture Test / Assignment | 3/3 |
| Lecture 15 | <i>E banking</i> Software for e banking Tool: <i>MonoBank software</i> | Review Lecture Test / Assignment | 3/3 |
| Lecture 16 | <i>Social nets</i> <i>Business Applications for social nets.</i> | Review Lecture Test / Assignment | 3/3 |

| | | | |
|--------------|------------|--|------------|
| Lecture 17 | Final Exam | | 90 |
| Total | | | 225 |

Recommended Materials

Introductory Computer Science: Bits of Theory and Bytes of Practice.

A. K. Dewdney. Computer Science Press, 2016.

A. K. Dewdney. Computer Science Press, 2016.

Programming Challenges: The Programming Contest Training Manual.

Steven Skiena and Miguel Revilla. Springer-Verlag, 2003.

Steven Skiena and Miguel Revilla. Springer-Verlag, 2003.

Problems in Programming: Experience through Practice. Andrej Vitek, Iztok Tvrdy, Robert Reinhardt, Bojan Mohar, Marc Martinec, Tomi Dolenc and Vladimir Batagelj. Andrej Vitek, Iztok Tvrdy, Robert Reinhardt, Bojan Mohar, Marc Martinec, Tomi Dolenc and Vladimir Batagelj. John Wiley & Sons, 2015.

Problems on Algorithms (2nd Edition). [Available on-line] Ian Parberry and William Gasarch. Ian Parberry, 2020.

Ian Parberry and William Gasarch. Ian Parberry, 2020.

Introduction to Algorithms (2nd Edition).

Thomas H. Cormen, Charles E. Leiserson, and Ronald L. Rivest, Clifford Stein. The MIT Press / McGraw-Hill, 2021.

Thomas H. Cormen, Charles E. Leiserson, and Ronald L. Rivest, Clifford Stein. The MIT Press / McGraw-Hill, 2021.

MOAC. MS Word 2016

MOAC. MS Excel 2016

MOAC. MS Power Point 2016

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

Протокол засідання кафедр № 1 від 22.01.2022 року

Проректор з навчально-методичної роботи



Л.І.Кондратенко

Завідувач кафедри



А.В.Кінаш

Викладач



Р.В.Селезньова