



## Computer Science

### Syllabus

#### ЗП 1.7

### Specialty: 292 “International Economic Relations” Educational program “International Business”

Quarter/Year: Fall/2022

ECTS Credits: 6

Instructor: Ruslana Selezneva, Ph.D. (Technical Sciences),

US Credits: 3

Associate Professor

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Prerequisites: -

### Course Description

Computer science is the study of processes that interact with data and that can be represented as data in the form of programs. It enables the use of algorithms to manipulate, store, and communicate digital information. A computer scientist studies the theory of computation and the practice of designing software systems.

Its fields can be divided into theoretical and practical disciplines. Computational complexity theory is highly abstract, while computer graphics emphasizes real-world applications. Programming language theory considers approaches to the description of computational processes, while computer programming itself involves the use of programming languages and complex systems. Human-computer interaction considers the challenges in making computers useful, usable, and accessible.

### Learning Outcomes

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

PH3. Use modern information and communication technologies, software packages for general and special purposes.

PH4. Systematize and streamline the information received on the processes and phenomena in the world economy; evaluate and explain the influence of endogenous and exogenous factors on them; formulate conclusions and develop recommendations, considering the peculiarities of the national and international environment.

PH7. Apply the acquired theoretical knowledge to solve practical problems and meaningfully interpret the results.

PH8. Understand, highlight and describe new phenomena, processes and trends of global development, mechanisms and tools for the implementation of economic policy and world integration / disintegration processes, including Euro-Atlantic integration.

PH10. Identify and highlight the features of the functioning of the subjects of international relations and models of their economic development.

PH12. Carry out a comprehensive analysis of complex economic systems, compare and contrast their components, evaluate and justify evaluations of the effectiveness of their functioning.

PH13. Select and skillfully apply analytical tools for studying the state and development prospects of individual segments of the international markets for goods and services using modern knowledge about the methods, forms and tools for regulating international trade.

PH14. Understand and apply theories, principles, means and tools for the implementation of international monetary and financial and credit relations.

PH17. Determine the reasons, types and nature of international conflicts and disputes, justify and apply economic, legal and diplomatic methods and means of their solution at the international level, defending the national interests of Ukraine.

PH18. Investigate economic phenomena and processes in the international sphere based on an understanding of categories, laws; highlighting and summarizing trends, patterns of functioning and development of the world economy, taking into account the cause-effect and space-time relationships.

PH19. Understand and apply current legislation, international regulations and agreements, reference materials, current standards and specifications, etc. in the field of international economic relations.

PH20. Defend the national interests of Ukraine, taking into account the security component of international economic relations.

PH22. Apply appropriate methods, rules and principles of functioning of international economic relations for the development of foreign economic activity of Ukraine.

PH23. Recognize the need for lifelong learning in order to maintain a high level of professional competence.

PH24. Substantiate the choice and apply information and analytical tools, economic and statistical calculation methods, complex analysis techniques and methods of monitoring world markets.

PH25. Present the results of the research on the basis of which recommendations and measures for adaptation to changes in the international environment are developed.

### **Competences:**

3K7. Skills of using information and communication technologies.

3K8. Ability to abstract thinking, analysis and synthesis.

CK3. Ability to identify features of the functioning of the environment of international economic relations and models of economic development.

CK11. Ability to conduct research on economic phenomena and processes in the international sphere, taking into account causal and spatio-temporal relationships

CK13. Ability to assess and analyze the security component in international economic relations.

**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:**

<b>Grade</b>	<b>ECTS Grade</b>	<b>International Grade</b>
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:**

<b>ECTS grade</b>	<b>Requirements for the student</b>
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 homework 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 1-6). It included multiple choice questions and cases (essays) and took about 1 hour.
- 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	<b>Introduction to Computer Science</b>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 2	<b>Topic</b> <i>Hardware and software. Classification and scope. Operational systems. Types of software</i>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 3	<b>Topic</b> <i>The logical and algorithmic foundations of Computer Science. Programming languages. Classification of programming languages</i>	<b>Review Lecture Test/Project</b>	3/3
Lecture 4	<b>Topic</b> <i>MS Office. MS Word for beginner. Part 1</i>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 5	<b>Topic</b> <i>MS Word for beginner. Part 2</i>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 6	<b>Topic</b> <i>MS Word for advanced user. Part 1</i>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 7 October 22	<b>Mid Term (20%)</b>	<b>Review Lecture Test / Assignment</b>	45
Lecture 8	<b>Topic</b> <i>MS Word for advanced user. Part 2</i>	<b>Review Lecture Test / Assignment</b>	3/3
Lecture 9	<b>MS Word Project</b>	<b>Review Lecture</b>	3/3

		<i>Test / Assignment</i>	
Lecture 10	<b>Topic</b> <i>MS Excel for beginner. Part 1</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 11	<b>Topic</b> <i>MS Excel for beginner. Part 2</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 12	<b>Topic</b> <i>MS Excel for advanced user. Part 1</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 13	<b>Topic</b> <i>MS Excel for advanced user. Part 2</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 14	<b>Topic</b> <i>MS Excel. Project</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 15	<b>Topic</b> <i>MS Power Point</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 16	<b>Topic</b> <i>Complex Project. (MS Word, MS Excel, MS Power Point)</i>	<b>Review Lecture</b> <b>Test / Assignment</b>	3/3
Lecture 17 December 20	<b>Final Exam (40%)</b>		90
<b>Total</b>			225

### Recommended Materials

1. MOAC TextBooks MS Word, MS Excel 2020
2. *Introductory Computer Science: Bits of Theory and Bytes of Practice.*
3. A. K. Dewdney. Computer Science Press, 2016.
4. A. K. Dewdney. Computer Science Press, 2017.
5. *The New Turing Omnibus: 66 Excursions in Computer Science.* A. K. Dewdney. Computer Science Press, 1993.
6. *What Computing Is All About.* Jan L. A. van de Snepscheut. Springer Verlag, 1993.
7. Jan L. A. van de Snepscheut. Springer Verlag, 1993.
8. Jan L. A. van de Snepscheut. Springer Verlag, 1993.

Протокол засідання кафедр № 4 від 23.08.2022 року

Проректор з навчально-методичної роботи



Л.І.Кондратенко

Завідувач кафедри



А.В.Кінаш

Викладач



Р.В.Селєзньова