**syllabus**

**1. Information regarding the programme**

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| 1.1 Higher education institution  | Babeş-Bolyai University |
| 1.2 Faculty | Faculty of Mathematics and Computer Science |
| 1.3 Department | Department of Computer Science |
| 1.4 Field of study | Computer Science |
| 1.5 Study cycle | Bachelor |
| 1.6 Study programme / Qualification  | Computer Science in English |

**2. Information regarding the discipline**

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| --- | --- |
| 2.1 Name of the discipline (en)(ro) | History of Computer ScienceIstoria Informaticii |
| 2.2 Course coordinator  | Assoc.Prof. PhD. Adrian Sterca |
| 2.3 Seminar coordinator |  |
| 2.4. Year of study | **3** | 2.5 Semester | **6** | 2.6. Type of evaluation | **C** | 2.7 Type of discipline | **Optional** |
| 2.8 Code of the discipline | MLE7007 |  |

**3. Total estimated time** (hours/semester of didactic activities)

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| --- | --- | --- | --- | --- | --- |
| 3.1 Hours per week  | 3 | Of which: 3.2 course | 2 | 3.3 seminar/laboratory | 2 pr |
| 3.4 Total hours in the curriculum  | 48 | Of which: 3.5 course | 24 | 3.6 seminar/laboratory | 24 |
| Time allotment: | hours |
| Learning using manual, course support, bibliography, course notes | 5  |
| Additional documentation (in libraries, on electronic platforms, field documentation)  | 8  |
| Preparation for seminars/labs, homework, papers, portfolios and essays | 0  |
| Tutorship | 7  |
| Evaluations | 7  |
| Other activities: .................. | 0  |
| 3.7 Total individual study hours  | 27  |
| 3.8 Total hours per semester | 75  |
| 3.9 Number of ECTS credits | 3  |

**4. Prerequisites** (if necessary)

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| 4.1. curriculum |  |
| 4.2. competencies |  |

**5. Conditions** (if necessary)

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| 5.1. for the course | * Class room with a video projector device
 |
| 5.2. for the seminar /lab activities |  |

**6. Specific competencies acquired**

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| **Professional competencies** | * C3.1 Description of concepts, theories and models used in the application domain
 |
| **Transversal competencies** | * CT1. Applying rules for an organized and efficient work, responsible attitude towards the didactic-scientific field for creative capitalization of one’s own potential, complying to the principles and professional ethics norms.
* CT2. Efficient progress of activities organized in an inter-disciplinary group and developing of emphatic and inter-personal communication skills, relationships and collaborating with diverse groups
* CT3. Utilizing efficient methods and techniques for learning, knowing, research and development of knowledge capitalization capacities, adapting to the requirements of a dynamic society and the communication in Romanian or an international language.
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**7. Objectives of the discipline** (outcome of the acquired competencies)

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| 7.1 General objective of the discipline | * To obtain a global view of Computer Science and to understand and

know its evolution.  |
| 7.2 Specific objective of the discipline | * To get students accustomed with historical evolution of the main

Computing Systems and Operating Systems types existent in todayComputer Science and in perspective. * To discover the most important people in Computer Science.
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**8. Content**

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| 8.1 Course | Teaching methods | Remarks |
| 1. Algorithmics in ancient times and Middle Age;

Euclid’s algorithm. First Computing Systems and first programming elements: Blaise Pascal, Charles Babage and Ada Byron, forerunners of classical Computer Science. | Exposure:description,explanation,examples |  |
| 1. Mathematical models in Computer Science: the

Turing machine, normal algorithms and formallanguages. The emergence of the electroniccomputer(1943-45); John von Neumann’s andAlan Turing’s contributions. | Exposure:description,explanation,examples |  |
| 1. Crucial moments in hardware development: the

input-output channel, the transistor, integrated circuits (microchip), the microprocessor, multiprocessor systems, real time systems, microcomputers and supercomputers. Generations of computers. | Exposure:description,explanation,examples |  |
| 1. Operating systems, from resident monitors to

distributed operating systems; from the monolithic internal structure to stratified structures and microkernel. | Exposure:description,explanation,examples |  |
| 1. Short history of programming languages.
 | Exposure:description,explanation,examples |  |
| 1. History of computer communication and the

Internet. | Exposure:description,explanation,examples |  |
| 1. History of the open source movement vs. closed source
 | Exposure:description,explanation,examples |  |
| 1. History of the WWW
 | Exposure:description,explanation,examples |  |
| 1. History of mobile devices
 | Exposure:description,explanation,examples |  |
| 1. Important figures in Computer Science
 | Exposure:description,explanation,examples |  |
| 1. History of Computer Science in Romania
 | Exposure:description,explanation,examples |  |
| 1. Old computer exhibition
 | Exposure:description,explanation,examples |  |
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| Bibliography1. <http://www.cs.ubbcluj.ro/~forest/hcs>2. Wikipedia3. http://cs-exhibitions.uni-klu.ac.at/index.php?id=3204. http://cs-exhibitions.uni-klu.ac.at/index.php?id=3215. http://cs-exhibitions.uni-klu.ac.at/index.php?id=3236. History of Unix. http://perso.club-internet.fr/unix/history.html7. http://www.cs.uwaterloo.ca/~shallit/Courses/134/history.html8. http://www.computerhistory.org/ |
| 8.2 Seminar / laboratory | Teaching methods | Remarks |
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| Bibliography  |

**9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program**

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| * The course respects the IEEE and ACM Curriculla Recommendations for Computer Science studies;
* The course gives a global view on many fields in Computer Science so it provides the student a more general expertise in Computer Science;
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**10. Evaluation**

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| Type of activity | 10.1 Evaluation criteria | 10.2 Evaluation methods | 10.3 Share in the grade (%) |
| 10.4 Course | Knowing the milestones inthe evolution of ComputerScience. | The final grade is: Min(E+P+B, 10) where: * E = the score obtained at the final quiz exam; the maximum score that can be obtained at the quiz exam is 7
* P = course activity, i.e. the number of course attendances; P can be maximum 6
* B = 1 bonus point obtained to the test given during the semester at the course (of course if the student answers correctly)

If the student is not present at the final quiz exam or the test or he/she does not have any course attendances, his/her corresponding scores, E, B or P will be 0. The student must get a score larger than 3 to the final quiz exam and a final grade of at least 5 in order to pass.  | 100% |
| 10.5 Seminar/lab activities |  |  |  |
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| 10.6 Minimum performance standards |
| * In order to successfully pass this class, students must get at least 5.
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Date Signature of course coordinator Signature of seminar coordinator

 25.04.2024 Assoc. Prof. PhD. Adrian Sterca Assoc. Prof. PhD. Adrian Sterca

Date of approval Signature of the head of department

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