SYLLABUS

1. Information regarding the programme

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 – German Section

2. Information regarding the discipline

2.1 Name of the discipline (en) (ro)			History of Computer Science				
2.2 Course coordinator			Lect. 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)

3.1 Hours per week	4	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					10
Additional documentation (in libraries, on electronic platforms, field documentation)					18
Preparation for seminars/labs, homework, papers, portfolios and essays					0
Tutorship					10
Evaluations					14
Other activities:					0

3.7 Total individual study hours	52
3.8 Total hours per semester	100
3.9 Number of ECTS credits	4

4. Prerequisites (if necessary)

4.1. curriculum	•
4.2. competencies	•

5. Conditions (if necessary)

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

6. Specific competencies acquired

Professional competencies	• Knowing important milestones in the history and evolution of Computer Science
Transversal competencies	• 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. • 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.

7. Objectives of the discipline (outcome of the acquired competencies)

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 today Computer Science and in perspective. • To discover the most important people in Computer Science.

8. Content

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	
2. Mathematical models in Computer Science: the Turing machine, normal algorithms and formal languages. The emergence of the electronic computer(1943-45); John von Neumann's and Alan Turing's contributions.	Exposure:description, explanation,examples	
3. 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	

4. Operating systems, from resident monitors to distributed operating systems; from the monolithic internal structure to stratified structures and microkernel.	Exposure:description, explanation,examples	
5. Short history of programming languages.	Exposure:description, explanation,examples	
6. History of computer communication and the Internet.	Exposure:description, explanation,examples	
7. History of the open source movement vs. closed source	Exposure:description, explanation,examples	
8. History of the WWW	Exposure:description, explanation,examples	
9. History of mobile devices	Exposure:description, explanation,examples	
10. Important figures in Computer Science	Exposure:description, explanation,examples	
11. History of Computer Science in Romania	Exposure:description, explanation,examples	
12. Old computer exhibition	Exposure:description, explanation,examples	
13.		
14.		

Bibliography

1. http://www.cs.ubbcluj.ro/~forest/hcs
2. Wikipedia
3. http://cs-exhibitions.uni-klu.ac.at/index.php?id=320
4. http://cs-exhibitions.uni-klu.ac.at/index.php?id=321
5. http://cs-exhibitions.uni-klu.ac.at/index.php?id=323
6. History of Unix. http://perso.club-internet.fr/unix/history.html
7. http://www.cs.uwaterloo.ca/~shallit/Courses/134/history.html
8. 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

- 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;

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)
10.4 Course	Knowing the milestones in the evolution of Computer Science.	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			
10.6 Minimum performance standards			
➢ In order to successfully pass this class, students must get at least 5.			

Date	Signature of course coordinator	Signature of seminar coordinator
.....	Lect.PhD. Adrian Sterca	Lect.PhD. Adrian Sterca

Date of approval ..... Signature of the head of department

Prof. PhD. Anca Andreica