

(faculty stamp)

**COURSE DESCRIPTION**

| <b>1. Course title:</b> SOCIAL SCIENCES I   |   | <b>2. Course code</b> |                     |                                  |
|---|---|-----------------------|---------------------|----------------------------------|
| <b>3. Validity of course description:</b> 2012/2013   |   |                       |                     |                                  |
| <b>4. Level of studies:</b> BSc programme /1 <sup>st</sup> cycle of higher education  |   |                       |                     |                                  |
| <b>5. Mode of studies:</b> intramural studies   |   |                       |                     |                                  |
| <b>6. Field of study:</b> MACRO   |   | (FACULTY SYMBOL)      |                     |                                  |
| <b>7. Profile of studies:</b>   |   |                       |                     |                                  |
| <b>8. Programme:</b>  |   |                       |                     |                                  |
| <b>9. Semester:</b> 5th   |   |                       |                     |                                  |
| <b>10. Faculty teaching the course:</b> Faculty of Organization and Management  |   |                       |                     |                                  |
| <b>11. Course instructor:</b> dr hab. Waldemar Czajkowski   |   |                       |                     |                                  |
| <b>12. Course classification:</b>   |   |                       |                     |                                  |
| <b>13. Course status:</b> compulsory  |   |                       |                     |                                  |
| <b>14. Language of instruction:</b> English   |   |                       |                     |                                  |
| <b>15. Pre-requisite qualifications:</b> basic knowledge presented in the courses: Social Sciences I, Social Sciences II  |   |                       |                     |                                  |
| <b>16. Course objectives:</b> The main objective of this course is to make students familiar with the vast field of application of formal/mathematical/computational methods in the domain of social sciences while stressing both the theoretical and the practical relevance of these applications. |   |                       |                     |                                  |
| <b>17. Description of learning outcomes:</b>  |   |                       |                     |                                  |
| Nr  | Learning outcomes description   | Method of assessment  | Teaching methods    | Learning outcomes reference code |
| 1.  | Knowledge of the basic facts about artificial intelligence, artificial life, and artificial society | written test          | lecture, discussion |                                  |
| 2.  | Understanding of the theoretical and practical importance of the development of AI, AL,AS           | discussion            | lecture, discussion |                                  |
| 3.  |   |                       |                     |                                  |
| 4.  |   |                       |                     |                                  |
| 5.  |   |                       |                     |                                  |
| 6.  |   |                       |                     |                                  |
| 7.  |   |                       |                     |                                  |
| 8.  |   |                       |                     |                                  |
| <b>18. Teaching modes and hours</b>   |   |                       |                     |                                  |

Lecture / BA /MA Seminar / Class / Project / Laboratory

Lecture: 15h

**19. Syllabus description:**

**Semester 5 :**

1. Challenges for social sciences in the time of globalization. How computers can help to overcome some barriers social sciences face.
2. Artificial intelligence and artificial life - ideas to be both applied in and adapted to social sciences.
3. Basic ideas of game theory. Prisoner's dilemma.
4. Computer simulations in studying more complex forms of prisoner's dilemma.
5. The concept of artificial societies.
6. Reports to the Club of Rome as an example of computer modelling of global social processes

**20. Examination:** participation and activity during lectures

**21. Primary sources:**

1. Joshua Epstein, Robert Axtell; Artificial Societies. Social Science from the Bottom Up; The MIT Press, Cambridge (Mass.) 1996
2. William Poundstone; Prisoner's Dilemma; Doubleday, New York 1993

**22. Secondary sources:**

1. Peter Convey, Roger Highfield; Frontiers of Complexity. The Search for Order in a Chaotic World; Ballantine Books 1996

**23. Total workload required to achieve learning outcomes**

| Lp. | Teaching mode :       | Contact hours / Student workload hours |
|-----|-----------------------|--|
| 1   | Lecture               | 15/                                    |
| 2   | Classes               | /                                      |
| 3   | Laboratory            | /                                      |
| 4   | Project               | /                                      |
| 5   | BA/ MA Seminar        | /                                      |
| 6   | Other                 | /                                      |
|     | Total number of hours | 15/                                    |

**24. Total hours:**

**25. Number of ECTS credits:**

**26. Number of ECTS credits allocated for contact hours:**

**27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects):**

**28. Comments:**

Approved:

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(date, Instructor's signature)

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(date, the Director of the Faculty Unit signature)

