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	Master
1.6 Study programme / Qualification	Applied Computational Intelligence

2. Information regarding the discipline

2.1 Name of the discipline	Agile Software Development						
2.2 Course coordinator	Lect. PhD Dan Mircea Suciu						
2.3 Seminar coordinator	Lect. PhD Dan Mircea Suciu						
2.4. Year of study	**1**	2.5 Semester	**1**	2.6. Type of evaluation	**E**	2.7 Type of discipline	**Compulsory**

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	1sem + 1 pr
3.4 Total hours in the curriculum	56	Of which: 3.5 course	28	3.6 seminar/laboratory	28

Time allotment:	Hours
Learning using manual, course support, bibliography, course notes	20
Additional documentation (in libraries, on electronic platforms, field documentation)	10
Preparation for seminars/labs, homework, papers, portfolios and essays	15
Tutorship	2
Evaluations	3
Other activities:	-

3.7 Total individual study hours	119
3.8 Total hours per semester	175
3.9 Number of ECTS credits	7

4. Prerequisites (if necessary)

4.1. curriculum	-
4.2. competencies	-

5. Conditions (if necessary)

5.1. for the course	Video projector
5.2. for the seminar /lab activities	Video projector

6. Specific competencies acquired

Professional competencies	- Identification and understanding of basic concepts of the following specific Agile methodologies: Scrum, Extreme Programing, Kanban, Lean Software Development. - Identification and explanation of basic Agile practices
Transversal competencies	- Formal communication in organizations - Project task time and effort estimation - Change management

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

7.1 General objective of the discipline	• acquiring knowledge and skills necessary for a process of management of IT projects
7.2 Specific objective of the discipline	• identifying the aspects that make Agile methodologies superior to predictive methodologies for software projects • identifying the strengths and weaknesses of each of today Agile practices • identifying the life cycle of a software project in an Agile context

8. Content

8.1 Course	Teaching methods	Remarks
1. Introduction in Agile Methodologies	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
2, 3, 4. Scrum – Roles, Ceremonies, Artefacts	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
5, 6. Extreme Programing	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
7. Lean Software Development	• Interactive exposure • Explanation • Conversation • Didactical demonstration	

8 – 9. Kanban	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
10. Other Agile Methodologies: DSDM, Crystal	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
11. Other Agile Methodologies: Agile Unified Process, Feature Driven Development	• Interactive exposure • Explanation • Conversation • Didactical demonstration	
12. Agile Contracts	• Interactive exposure • Conversation	
13. Risk Management in an Agile Environment	• Interactive exposure • Conversation	
14. The future of Agile	• Interactive exposure • Conversation	

Bibliography

1. Jeff Langr, Tim Ottinger - Agile in a Flash: Speed-Learning Agile Software Development, Pragmatic Bookshelf, 2011
2. Esther Derby, Diana Larsen - Agile Retrospectives: Making Good Teams Great, Pragmatic Bookshelf, 2006
3. Thomas Stober, Uve Hansmann - Agile Software Development, Best Prectices for Large Software Development Projects, Springer 2010
4. Mike Cohn - Succeeding with Agile Software Development using Scrum, Addison-Wesley, 2010
5. Mike Cohn - User Stories Applied, For Agile Software Development, Addison-Wesley, 2004

8.2 Seminar	Teaching methods	Remarks
1. Leadership and management	Dialogue, debate, case studies, examples, proofs	The seminar is structured as 2 hours classes every second week
2. Customer Alignment	Dialogue, debate, case studies, examples, proofs	
3, 4. Emotional intelligence	Dialogue, debate, case studies, examples, proofs	
5. Cultural awareness	Dialogue, debate, case studies, examples, proofs	
6. Coaching	Dialogue, debate, case studies, examples, proofs	
7. Self-Organizing Teams	Dialogue, debate, case studies, examples, proofs	

Bibliography

1. Tom Demarco - Waltzing with Bears Managing Risks On Software Projects
2. Patrick Lencioni - The Five Dysfunctions of a Team, Jossey-Bass, 2002

3. Daniel Goleman - Leadership: The Power of Emotional Intellegence, More Than Sound, 2011

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

10. Evaluation

Type of activity	Evaluation criteria	Evaluation methods	Share in the grade (%)
Course	- know the basic principle of the domain; - apply the course concepts - problem solving	Written exam	95%
Seminar/lab activities	Evaluation of a 15 minutes optional presentation about applying Agile practices in real projects	- oral examination - Continuous observations	5%
Minimum performance standards			
• The final grade should be at least grade 5 (from a scale of 1 to 10)			

Signature of course coordinator — Signature of seminar coordinator

Lect. PhD. Dan Mircea Suciu — Lect. PhD. Dan Mircea Suciu

Signature of the head of department