

## SYLLABUS

### 1. Information on the study programme

1.1. Higher education institution	West University of Timisoara
1.2. Faculty	Mathematics and Computer Science
1.3. Department	Computer Science
1.4. Study program field	Computer Science
1.5. Study cycle	postgraduate
1.6. Study programme	Artificial Intelligence and Distributed Computing

### 2. Information on the course

2.1. Course title	Research practice						
2.2. Lecture instructor	-						
2.3. Seminar / laboratory instructor	Prof. Dr. Dana Petcu						
2.4. Study year	2	2.5. Semester	2	2.6. Examination type	C	2.7. Course type	M

### 3. Estimated study time (number of hours per semester)

3.1. Attendance hours per week	3	out of which: 3.2 lecture	-	3.3. seminar / laboratory	3
3.4. Attendance hours per semester	42	out of which: 3.5 lecture	-	3.6. seminar / laboratory	42

Distribution of the allocated amount of time*		hours
Study of literature, course handbook and personal notes		35
Supplementary documentation at library or using electronic repositories		25
Preparing for laboratories, homework, reports etc.		20
Exams		7
Tutoring		6
Other activities...		0
3.7. Total number of hours of individual study	93	
3.8. Total number of hours per semester	135	
3.9. Number of credits (ECTS)	8	

### 4. Prerequisites (if it is the case)

4.1. curriculum	-
4.2. competences	-

### 5. Requirements (if it is the case)

5.1. for the lecture	-
5.2. for the seminar / laboratory	On-line, Google Meet, digital materials available at <a href="https://staff.fmi.uvt.ro/~dana.petcu/researchpractice.htm">https://staff.fmi.uvt.ro/~dana.petcu/researchpractice.htm</a>

## 6. Specific acquired competences

Professional competences	<ul style="list-style-type: none"> <li>Ability to prepare and conduct a research plan</li> <li>Ability to collect and prepare a synthesis of relevant bibliographical resources</li> </ul>
Transversal competences	<ul style="list-style-type: none"> <li>Ability to prepare a report</li> <li>Ability to prepare a presentation</li> </ul>

## 7. Course objectives

7.1. General objective	<ul style="list-style-type: none"> <li>Acquire the knowledge necessary to handle a research activity</li> </ul>
7.2. Specific objectives	<ul style="list-style-type: none"> <li>Apply the knowledge about research activities to the master dissertation thesis</li> </ul>

## 8. Content

8.1. Lecture	Teaching methods	Remarks, details
<b>Recommended literature</b>		
8.2. Seminar / laboratory	Teaching methods	Remarks, details
Seminar 1: Scientometrics and key performance indications	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/Scientometrics.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/Scientometrics.pdf</a>
Seminar 2: Evaluation of individual research results in Romania	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalIndivid.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalIndivid.pdf</a>
Seminar 3: Evaluation of institutional research results in Romania	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalInstitute.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalInstitute.pdf</a>
Seminar 4: Evaluation of research activities around the globe	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalGlobe.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/EvalGlobe.pdf</a>
Seminar 5: Software tools supporting research activities: information gathering	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForInformationGathering.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForInformationGathering.pdf</a>
Seminar 6: Software tools supporting research activities: activity reporting	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForActivityReporting.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForActivityReporting.pdf</a>
Seminar 7: Software tools supporting research activities: impact measurement	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForImpactMeasuring.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/ToolsForImpactMeasuring.pdf</a>
Seminar 8: Proof-of-concept versus production: technological readiness levels	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/TRL.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/TRL.pdf</a>
Seminar 9: Research project management	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/ProjectManagement.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/ProjectManagement.pdf</a>
Seminar 10: Ethics in research	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/EthicsInResearch.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/EthicsInResearch.pdf</a>

Seminar 11: Collaborative research activities	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/Collaborative.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/Collaborative.pdf</a>
Seminar 12: Intellectual property rights of research result	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/IPR.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/IPR.pdf</a>
Seminar 13: Publications versus Patents	Presentation, Conversation, Examples	<a href="https://staff.fmi.uvt.ro/~dana.petcu/seminar/PublicationVsPatent.pdf">https://staff.fmi.uvt.ro/~dana.petcu/seminar/PublicationVsPatent.pdf</a>
Seminar 14: Checking the articles based on the master thesis results	Presentation, Conversation, Examples	
<b>Recommended literature</b>		
<ol style="list-style-type: none"> <li>1. Peter Vinkler, <i>The Evaluation of Research by Scientometric Indicators</i>, ISBN 9781843345725, 2010</li> <li>2. Olivier Le Deuff, "The New Metrics: From Scientometrics to Webometrics," in <i>Digital Humanities: History and Development</i>, Wiley, 2018, pp.101-111, doi: 10.1002/9781119308195.ch9</li> <li>3. M. Gunter and M. Gisler, "Intellectual properties as intangible goods," <i>Proceedings of the 33rd Annual Hawaii International Conference on System Sciences</i>, Maui, HI, USA, 2000, pp. 10 pp.-. doi: 10.1109/HICSS.2000.927024</li> </ol>		

### 9. Correlations between the content of the course and the requirements of the professional field and relevant employers.

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### 10. Evaluation

Activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Weight in the final mark
10.4. Lecture			
10.5. Seminar / laboratory	The students should prepare during the semester a research paper based on their master thesis	Oral examination	50%
	The students should write software tool for research reporting/ collections, implementing the principles discussed during the seminar	Oral examination	50%
10.6. Minimum needed performance for passing			
General understanding of a research activity			

Date of completion

Signature (lecture instructor)

Signature (seminar instructor)

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Prof. Dr. Dana Petcu

Date of approval

Signature (director of the department)