

## **COURSE SYLLABUS**

1. Information about the programme

1. Information about the programm	iic
1.1 Institution of higher education	WEST UNIVERSITY OF TIMISOARA
1.2 Equity / Donoutment	FACULTY OF ECONOMICS AND BUSINESS
1.2 Faculty / Department	ADMNISTRATION
1.2 Donoutmont of	DOCTORAL SCHOOL OF ECONOMICS AND BUSINESS
1.3 Department of	ADMINISTRATION
1 4 Awas of study	ECONOMIC SCIENCES AND BUSINESS
1.4 Area of study	ADMINISTRATION
1.5 Level of studies	DOCTORAL STUDIES
1.6 Training/qualification	DOCTORAL STUDIES

## 2. Discipline data

2.1 Course name			SCIENTOMETRICS AND EVALUATION OF SCIENTIFIC RESEARCH				
<b>2.2 Course coordinator</b> Prof. Lobont O			of. Lobonț Oana Ramona	PhD	habil.		
2.3 Seminar coord	inator	Prof. Lobonț Oana Ramona PhD habil.			habil.		
2.5 Year of study	I	2.6 Semester	I 2.7 Type of assessment E 2.8 Type of discipline				

3. Total estimated time (hours of teaching per semester)

3.1 Number of hours per week	3	course	2	workshops	1
3.2 Total hours in the curriculum	36	course	24	workshops	12
3.3 Distribution of time:					
Study based on Instructions, course materials, bibliography and notes					90
Additional documentation library, specialized electronic platforms / field					70
Training seminars / laboratories, homework, essays, portfolios and essays					50
Other activities					-

3.4 Total hours of private study	210
3.5 Tutoring	-
3.6 Examinations	40
3.7 Total hours per semester	250
3.8 Number of credits	10

4. Prerequisites (where applicable)

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4.1 curriculum - based	•	Acquiring fundamental knowledge, following the compulsory disciplines in the
		curriculum for the bachelor and master's cycle: 'Academic Writing' and Research
		`Ethics`
	•	The PhD students will enroll in the guidance of the PhD coordinator in
		accordance with the individual "Scientific research program"
4.2 competence based	•	Collecting, analyzing and interpreting data and information related to scientific
		aspects, using scientific methods to capitalize on the results of scientific research



5. Conditions (where applicable)

5.1 for lectures	a percentage of minimum 80% attendance for the course activity;	
	Online Teaching (55%), via:	
	⇒ e-learning platform, Moodle type, at the address:	
	https://elearning.e-uvt.ro - on the specific page of the	
	discipline, the course support is uploaded, as well as other	
	bibliographic materials in electronic format, in special	
	sections created within the course page	
	⇒ video conferencing application: Google Meet, at:	
	https://meet.google.com - access through the exclusive use	
	of institutional e-mail to attend lectures (courses and	
	seminars);	
	Face-to-face teaching (45%), via:	
	⇒ meetings scheduled according to the schedule	
	Material base/technical conditions (computer/laptop/ notebook	
	with functional webcam, stable Internet connection).	
5.2 for seminars	a percentage of minimum 80% attendance for the seminar activity;	
	• Online Teaching (55%), via:	
	⇒ e-learning platform, Moodle type, at the address:	
	https://elearning.e-uvt.ro - on the specific page of the	
	discipline, the course support is uploaded, as well as other	
	bibliographic materials in electronic format, in special	
	sections created within the course page	
	⇒ video conferencing application: Google Meet, at:	
	https://meet.google.com - access through the exclusive use	
	of institutional e-mail to attend lectures (courses and	
	seminars);	
	Face-to-face teaching (45%), via:	
	⇒ meetings scheduled according to the schedule	
	Material base/technical conditions (computer/laptop/ notebook	
	with functional webcam, stable Internet connection).	

# 6. Specific skills acquired

Transversal skills

- Execution of complex professional tasks, under conditions of professional autonomy and independence
- Identifying the opportunities and ways of continuous training and the efficient use of learning resources and techniques for their own development 10 CREDITS

## 7. Course objectives (based on the grid of the skills acquired)

7.1 Main objective	•	Completely acquiring concepts and defining elements specific to the scientometric methods for capitalizing the results of scientific research, a necessary condition for developing a responsible professional career	
7.2 Specific objectives	•	Initiation of PhD students in the field of scientometry	
	•	Development of the capacities of knowledge, appreciation and	
		valorisation of the main perspectives and dimensions of	





<ul> <li>academic excellence;</li> <li>Development of skills to identify the relevance of biblion analyzes</li> <li>Acquiring the knowledge and skills needed to unders respect, develop and implement purely scienton assessments in scientific research activity</li> <li>Integration of the knowledge acquired in other discipling the doctoral training system in the elaboration of the indiversity progress reports and the use of scientific results</li> </ul>	stand, netric
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## 8. Contents

8.1 Lectures	Teaching methods	Comments
1. Professional responsibility in reporting and evaluating scientific research activity	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Presentation of the topics, objectives, and methods regarding the problem of reporting the research activity  2 hours
2. Practices in the academic environment regarding scientific production	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Delimitation of the sources of qualified knowledge, dependent on the domain of the sources with trusted (academic) degrees assigned 2 hours
3. Scientometric analysis regarding the originality of research results and scientific papers	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Presentation of the set of methods for measuring the production and dissemination of the scientific knowledge for the quantitative analysis of the science 2 hours
4. The relevance of bibliometric analyzes	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Evaluation of the scientific contribution of the authors, magazines or specific works, as well as the analysis of the process of dissemination of scientific knowledge  Analyze VosViewer  4 hours
5. Methodological principles and specific methods regarding the modalities of collecting the information involved in the activity of reporting the results and the impact of the research	Interactive Lectures and Practical Examples, Alert Settings Demonstrations, and Field-Weighted Citation Impact Template Measurements	Citations analysis, including alert settings Analysis of social networks Content analysis and text extraction 4 hours
6. Journal-specific bibliometric indicators (Journal-level Bibliometric)	Practical examples and demonstrations using the Web of Science platforms for Journal Citation Reports ranks journals and Scopus for Scimago Journal & Country Rank	Specific metrics for indexed journals Web of Science, SCOPUS and other indexations (Impact Factor Immediacy Index Cited / citing half-life Eigenfactor, Source Normalized Impact for Paper (SNIP)





8.1 Lectures	Teaching methods	Comments
	and Journal Metrics (CiteScore) and Eigenfactor tool	SCImago Journal Ranking (SJR) CiteScore, Google Scholar Metrics) 4 hours
7. Author-level bibliometric indicators	Practical examples and demonstrations using PoP software versions, Publish or Perish	Author-specific metrics: The Hirsch Index - The h-index, with its variations g- index and m-index 2 hours
8. Article-level Bibliometric indicators	Practical examples and demonstrations using the Clarivate Analytics - Web of Science Core Collection: How to do a Cited Reference Search	Metrics specific to articles indexed by Web of Science, SCOPUS and other indexes (Science Citation Index (SCI), Social Science Index Citation (SSCI) and Citation Art & Humanities Index (A & HCI). Emerging Sources Citation Index (ESCI), Scopus, Google Scholar), Citation alerts 2 hours
9. Bibliometric indicators specific to institutional performance management in research (Institution-level Bibliometric)	Practical examples, demonstrations, discussions based on case studies using SciVal software modules, a subscription-based research performance evaluation tool	Evaluation, financing and classification of universities:  • Academic Ranking of World Universities, • CWS Leiden Ranking, • QS World University Rankings, • Scimago Institutions Rankings, • THE World University Rankings, • Webometrics Ranking of World Universities  2 hours

### References

- 1. Adams J., McVeigh M., Pendlebury D. and Szomszor M., (2019), Profiles, not metrics, About Web of Science, Clarivate Analytics, <a href="https://clarivate.com/wp-content/uploads/dlm-uploads/2019/01/WOS-ISI-Report ProfilesNotMetrics">https://clarivate.com/wp-content/uploads/dlm-uploads/2019/01/WOS-ISI-Report ProfilesNotMetrics</a> 008.pdf
- 2. Bornmann, L and Haunschild, R. (2018). Plots for visualizing paper impact and journal impact of single researchers in a single graph. Scientometrics, 115, 385-394. DOI <a href="https://doi.org/10.1007/s11192-018-2658-1">https://doi.org/10.1007/s11192-018-2658-1</a>
- 3. Ariely, D. (2012). Adevărul (cinstit) despre necinste. Cum îi mințim pe toți dar mai ales pe noi înșine. București: Editura Publica; , available at http://www.ted.com/talks/dan ariely on our buggy moral code
- 4. Babbie, E. R. (2015). The practice of social research: Nelson Education, disponibil la adresa web http://jsp.ruixing.cc/jpkc\_xingfa/JC\_Data/JC\_Edt/lnk/20161105194206236.pdf
- 5. Leiden Manifesto, disponibil la adresa web <a href="http://sti2014.cwts.nl">http://sti2014.cwts.nl</a> (Hics, D. et al. The Leiden Manifesto for research metrics. Nature, 2015, 520:429-431. DOI: 10.1038/520429a)
- Nalimov V.V., Mulchenko Z.M (1969): Naukometriya. Izuchenie Razvitiya Nauki kak Informatsionnogo Protsessa. [Scientometrics. Study of the Development of Science as an Information Process], Nauka, Moscow, (English translation: 1971. Washington, D.C.: Foreign Technology Division. U.S. Air Force Systems Command, Wright-Patterson AFB, Ohio. (NTIS Report No.AD735-634).
- 7. Pritchard A. (1969): Statistical bibliography or bibliometrics. In: Journal of Documentation. 1969, 25 (4): 348-349)
- 8. Santos, B.S., Silva, I., Lima, L. Takako, P., Gisliany Alves, E., & Marcel da Câmara Ribeiro-Dantas (2022). Discovering temporal scientometric knowledge in COVID-19 scholarly production. Scientometrics 127, 1609–1642, https://doi.org/10.1007/s11192-021-04260-y
- 9. University of Pittsburg, Bibliometric indicators of impact,





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https://pitt.libguides.com/bibliometricIndicators/ArticleLevelMetrics

10. Wang, J. (2013). Citation time window choice for research impact evaluation. Scientometrics, 94, 851–872. doi: 10.1007/s11192-012-0775-9

#### Bibliometric and scientometric databases:

- 1. Elsevier webpage, available at <a href="https://www.elsevier.com/">https://www.elsevier.com/</a>
- 2. IntechOpen webpage, available at https://www.intechopen.com/books/scientometrics
- 3. SCOPUS webpage, , available at https://www.scopus.com/home.uri
- 4. UEFISCDI webpage, , available at https://uefiscdi.ro/scientometrie-baze-de-date
- 5. Web of Science webpage, , available at <a href="https://login.webofknowledge.com">https://login.webofknowledge.com</a>
- 6. Publish or Perish, Harzing.com, available at https://harzing.com/resources/publish-or-perish
- 7. Google scholar web search engine, available at <a href="https://scholar.google.com/">https://scholar.google.com/</a>
- 8. Scientometrics. An International Journal for all Quantitative Aspects of the Science of Science, Communication in Science and Science Policy, <a href="https://www.springer.com/journal/11192">https://www.springer.com/journal/11192</a>

#### Databases:

- OECD work on scientometrics and bibliometrics, available at <a href="https://www.oecd.org/sti/inno/scientometrics.htm">https://www.oecd.org/sti/inno/scientometrics.htm</a>
- World Bank Research Observer, available at <a href="https://www.scijournal.org/impact-factor-of-world-bank-research-observer.shtml">https://www.scijournal.org/impact-factor-of-world-bank-research-observer.shtml</a>
- Eurostat Science, technology and innovation, available at <a href="https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database">https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database</a>

8.2 Seminar	Metode de predare	Observații
1. The relevance of bibliometric analyzes	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Evaluation of the scientific contribution of the authors, magazines or specific works, as well as the analysis of the process of dissemination of scientific knowledge  Analyze VosViewer  4 hours
2. The Relevance of systematic review	Interactive lectures / Debate / Exposition: description, explanations, practical examples, demonstrations, case studies	Evaluarea tudii efectuate pe subiecte de cercetare similare. Analiza Sistematică în Web of Scienece 2 hours
3. Author-level Bibliometrics	Practical examples and demonstrations using various platforms Google Scholar, Scopus, Web of Science	Author-specific metrics: The Hirsch Index 2 hours
4. Reporting the scientific activity of doctoral students	Practical examples and demonstrations considering the institutional and national regulations in force	Simulations to complete List of scientific articles and other reserch results obtained in the scientific activity, correlated with the national minimum standards for being awarded a doctoral degree and the standards and qualifications for awarding of the doctorate degree within the field of Economic Sciences and Business  Administration  4 hours





8.1 Lectures	Teaching methods	Comments	
Bibliography			
- VOSviewer, Web of Science, Scopus, Google Scholar platforms			
- Regulations, methodologies, procedures updated up to date			

- 9. Corroboration of the course contents with the epistemic expectations of the community representative, professional associations and representative employers of the programme itself.
- The content of the discipline responds to the deontological requirements of the doctoral researches in economics defined / addressed at national and international level, constituting premises for the development of the professional and academic competences of the PhD students.
- The content of the discipline is corroborated with the content of similar disciplines taught in other university centres, with the structure and content of the disciplines taught at Romanian universities, but also at other European universities.

### 10 Evaluation

TV. Evaluation			
Type of	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage in the final grade
activity			
10.4 Lectures	Assessment both during the semester and the end of the semester on the correct acquisition and understanding of the issues covered during the	Frequency of interaction during classes: active participation	100%
	course		
10.5 Seminar	Assessment both during the semester and the end of the semester on the correct acquisition and understanding of the issues covered during the seminar	Frequency of interaction during classes: active participation  Completing the portfolio of activities	100%

### 10.6 Minimum performance standards

**Date of approval in SDEEA:** 

Active contribution of doctoral students in identifying the most relevant opportunities to report theresults of the research activity - proving the understanding of the phenomena taught and debated in the course and seminar activities in a proportion of at least 80%

Date of submission:	Course Coordinator:
28.09.2023	Prof. Lobonț Oana Ramona PhD habil
	Signature:

**HEAD OF THE SDEEA:** Prof. Camelia HAŢEGAN, PhD

