Informetrics

Academic Year: (2023 / 2024) **Review date: 07/01/2024 22:28:51**

Department assigned to the subject: Library and Information Sciences Department

Coordinating teacher: GARCIA ZORITA, JOSE CARLOS

Type: Electives ECTS Credits : 6.0

Year : 1 Semester : 2

OBJECTIVES

The main objective of the course is to acquire basic skills - theoretical and practical - in relation to the methods and uses of metric studies of information studies (MIS).
To this end, the following specific objectives are listed:
- To know the sociological aspects of scientific and technological communication, as well as the search and retrieval of information for scientific/information use.
- To know the phenomena and regularities linked to scientific and technical information.
- To understand the quantitative aspects of the production and use of scientific and technical information resources.
- Analyze the existing information on the environment of organizations and use the new knowledge in decision making.
- Interpret and apply in context methodologies, technologies and new forms of analysis, treatment and retrieval of information.
- Apply data visualization techniques for the understanding of information phenomena.

DESCRIPTION OF CONTENTS: PROGRAMME

Specific topics of the course:

Theory
- Basic concepts of Informetrics
- informetric Tools: Laws and indicators
- Informetrics' Applications: Cibermetrics, Webmetrics and Social Network Analysis. Other applications (Technological Surveillance and Competitive Intelligence, Datamining and Textmining)

Practice
Carrying out practical activities in which data collection and analysis techniques will be applied, based on the use of computer and computing tools.

LEARNING ACTIVITIES AND METHODOLOGY

TRAINING ACTIVITIES OF THE STUDY PLAN RELATED TO SUBJECTS
AF1 Individual work for the study of theoretical and practical materials developed and contributed by the teacher
AF2 Individual work for problem solving and case studies
AF3 Face-to-face and/or synchronous classes of theoretical and practical nature.
AF4 Mandatory synchronous tutoring.
AF5 Group work
AF6 Active participation in forums enabled by the teacher in the virtual educational platform
AF7 Synchronous online discussions and colloquia

Activity Code	Total hours	Is it synchronous?	Nº of Interactivity Hours
AF1	49	NO	0
AF2	45	NO	0

AF3	6	SI	6	
AF4	6	SI	6	
AF5	60	NO	0	
AF6	2	NO	0	
AF7	6	SI	6	
AF8	6	SI	6	
TOTAL MATERIA	180			24

TEACHING METHODOLOGIES

MD1 Presentations in the teacher's class with support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.
MD2 Critical reading of texts recommended by the teacher of the subject:
Press articles, reports, manuals and / or academic articles, either for later discussion in class, or to expand and consolidate the knowledge of the subject.
MD3 Resolution of practical cases, problems, etc., raised by the teacher individually or in a group
MD4 Presentation and discussion through weekly seminars in synchronous mode, under the moderation of the professor of topics related to the content of the subject, as well as practical cases.
MD5 Preparation of individual and group work and reports
MD6 Reading of theoretical and practical teaching materials

ASSESSMENT SYSTEM

% end-of-term-examination/test:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

SE1 Participation in class and forums on the virtual educational platform
SE2 Individual or group work done during the course
SE3 Carrying out evaluable and scoring questionnaires
SE4 Exam and/or Final Work *
SE5 Presentation, content, and public defense of TFM
---
* The final exam will be held in face-to-face mode, at Carlos III University or at a university-sponsored center that guarantees the student's identity and must pass it to pass the corresponding subject/subject.

EVALUATION SYSTEMS .... Weighting
SE1 .... 10%
- Participation in activities of the subject 10%
SE2 .... 25%
- Individual self-assessment practices 20%
- Comments and evaluation by pairs of readings 5%
SE3 .... 15%
- Conducting evaluation questionnaires 15%
SE4 .... 50%
- Final Course Work (in group) 30%
- Final Exam ** (In person/synchronous) 20%

** To pass the subject it is necessary to pass this test. Those students who pass the Final Exam, but not the Subject, will retain the qualification obtained for the extraordinary convocation.

FOLLOW-UP TO CONTINUOUS EVALUATION

It is understood that a student follows the continuous evaluation if, and only if, it meets the following criteria:

- Perform all the evaluation questionnaires (SE3) obtaining in them an average score equal to or greater than 25% of their qualification; Y
- Participate actively in the realization of the Final Work (SE4).

% end-of-term-examination/test:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

Those students who do not follow the continuous evaluation will need to be able to surpass the subject, to go to the extraordinary call.

EXTRAORDINARY CALL:
The extraordinary call of the subject for those students who have not passed will consist of two parts:
- A task to be delivered in advance that will be worth a maximum of 70% of the final grade of the subject.
- A FINAL EXAM (face-to-face) that will be worth a maximum of 30% of the final grade of the subject.

BASIC BIBLIOGRAPHY

- * -, Bar-Ilan, J. (2008) Informetrics at the beginning of the 21st century¿A review. Journal of Informetrics, 2, 1¿52.

- * -, Hood, W.W., Wilson, C.S. (2001). The literature of bibliometrics, scientometrics and informetrics. Scientometrics, 52, (2), 291¿314..

- * -, THELWALL, M.; VAUGHAN, L.; BJORNEBORN, L. (2005).Webometrics. Annual Review of Information Science and Technology, vol. 39, pp. 81-135..

- * -, THELWALL, Mike. (2008). Bibliometrics to Webometrics. Journal of Information Science, vol. 34, no. 4, pp. 605-621..

- * -, Cronin, B. (2000). Strategic intelligence and networked business. Journal of Information Science, 26, 133-138..

- * -, Hand, D., Mannila, H., Smyth, P. (2001). Principles of data mining. Cambridge: Massachussetts Institute of Technology..

- * -, Abrizah, A., Erfanmanesh, M., Rohani, V. A., Thelwall, M., Levitt, J. M., & Didegah, F. (2014). Sixty-four years of informetrics research: Productivity, impact and collaboration. Scientometrics, 101(1), 569-585..

- * -, Egghe, L., & Rousseau, R. (1990). Introduction to informetrics: Quantitative methods in library, documentation and information science. Elsevier Science Publishers..

- * -, Galyavieva, M. S. (2013). On the formation of the concept of informetrics (Review). Scientific and Technical Information Processing, 40(2), 89-96.

- * -, Barnes, C. (2015). The Use of Altmetrics as a Tool for Measuring Research Impact. Australian Academic & Research Libraries, 46(2), 121-134..

- * -, Sharda, R., Delen, D., Turban, E., Aronson, J., & Liang, T. P. (2014). Businesss Intelligence and Analytics: Systems for Decision Support-(Required). Prentice Hall..

- * -, Mingers, J., & Leydesdorff, L. (2015). A review of theory and practice in scientometrics. European Journal of Operational Research, 246(1), 1¿19..

- * -, Pellissier, R., & Nenzhelele, T. E. (2013). Towards a universal definition of competitive intelligence. SA Journal of Information Management, 15(2)..

- * -, Todeschini, R., & Baccini, A. (2016). Handbook of bibliometric indicators: quantitative tools for studying and evaluating research. Weinheim: Wiley-VCH Verlag GmbH & Co.KGaA..