UAB
Universitat Autònoma de Barcelona

Digital Analytics

2026/2027

Code: 104753
Credits: 6

Degree programme	Type	Course
Interactive Communication	OP	4

Contact lecturer

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Group languages

You can consult this information at the end of the document.

Prerequisites

A working knowledge of computers at a user level and basic English are required to take this course, as some of the bibliographic references and software documentation are in English.

Objectives

Understand and apply techniques for collecting, processing, and integrating data from the digital environment to produce different types of documents and reports.

Use web analytics as a tool for evaluating user behavior as well as content and service performance.

Develop in-depth knowledge of social media data extraction and analysis through the exploration of different approaches and techniques.

Learning outcomes

1. Distinguish the salient features in all types of documents within the subject.
2. Cross-check information to establish its veracity, using evaluation criteria.
3. Submit course assignments on time, showing the individual and/or group planning involved.
4. Interpret the results of content creation based on scientific thought.
5. Plan and conduct academic studies in the field of digital analytics.
6. Interpret big data in websites and applications.
7. Identify data-collection systems.
8. Recognise the different tools of web analytics.
9. Understand and apply the metrics of web analytics.
10. Analyse reports on internet and mobile data.
11. Create measurement strategies.
12. Propose new methods or well-founded alternative solutions.
13. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
14. Propose viable projects and actions to boost social, economic and environmental benefits.
15. Propose projects and actions that are in accordance with the principles of ethical responsibility and respect for fundamental rights and obligations, diversity and democratic values.
16. Propose projects and actions that incorporate the gender perspective.
17. Communicate using language that is not sexist or discriminatory.
18. Critically analyse the principles, values and procedures that govern the exercise of the profession.

19. Evaluate the impact of problems, prejudices and discrimination that could be included in actions and projects in the short or medium term in relation to certain people or groups.
20. Analyse the sex-/gender-based inequalities and gender bias in one's own area of knowledge.
21. Consider how gender stereotypes and roles impinge on the exercise of the profession.
22. Analyse a situation and identify its points for improvement.
23. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.
24. Propose new ways to measure the success or failure of the implementation of innovative proposals or ideas.

Contents

- Introduction to digital analytics.
- Web analytics: Methods and tools for measurement and visualization in web environments.
- Social media analytics: Digital and computational methods.

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Written exam	3	0.12	6, 7, 8, 9, 15, 18, 19
Master classes with ICT support	15	0.6	1, 2, 12, 13, 14, 15, 18, 19, 22, 23, 24
Tutorials (individual or group face-to-face activity aimed at solving learning problems)	12	0.48	4, 5, 6, 10, 11, 15, 16, 17, 18, 19, 20, 21
Project practices	21	0.84	3, 4, 5, 6, 7, 8, 9, 10
Study: Reading and synthesis of scientific documents	54	2.16	1, 2, 4, 6, 7, 10, 11, 13, 18, 19, 22
Seminars	12	0.48	1, 2, 3, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24

Knowledge acquisition will take place through the following types of activities:

- Lectures: Aimed at delivering the core content of the syllabus.
- Project sessions: Consisting of the development of a social media analytics project.
- Seminars: Focused on bridging theoretical concepts and their practical applications.

A detailed schedule outlining the content of each session will be presented on the first day of the course and will be available on the course's Virtual Campus, where students will find the various teaching materials deemed appropriate by the instructors and necessary information for effective course monitoring. Should the teaching modality change for reasons of force majeure according to the competent authorities, the teaching staff will inform students of any modifications to the course schedule and teaching methodologies.

Attendance and participation in the sessions dedicated to the project and seminars is mandatory.

Note: The course content will be sensitive to issues related to gender perspective and the use of inclusive language.

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Seminars	20%	15	0.6	1, 2, 3, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
Written exam	40%	3	0.12	6, 7, 8, 9, 15, 18, 19
Project	40%	15	0.6	1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24

This course evaluation is based on continuous assessment (AC).

Specifically, the continuous assessment breakdown is as follows:

- Written exam (40%)
- Project (40%)
- Seminars (20%)

The final grade will be the weighted average of the three graded components. However, to calculate this average, students must achieve a minimum score of 5 out of 10 on the written exam.

Given the practical nature of the seminars, active participation is required for grading. If a student is absent from a theoretical-practical seminar, they must complete an alternative assignment to make up the grade.

Reassessment: Students will be entitled to reassessment in the course if they have been evaluated through a set of activities accounting for at least two-thirds of the total course grade.

Only the written exam and the theoretical-practical seminars are eligible for reassessment. Consequently, the project is excluded from the reassessment process.

Single-assessment: This course does not provide for a single-assessment system.

Repeat students (second sitting or beyond): Assessment will consist of a synthesis test covering the learning outcomes set out in the course guide. In this case, the course grade will correspond solely to the result of that exam.

Plagiarism: In the event that the student commits any irregularity that could lead to a significant variation in the grade of an assessment act, this assessment act will be graded with 0, regardless of the disciplinary process that may be instituted . In the event that several irregularities occur in the evaluation acts of the same subject, the final grade for this subject will be 0.

Unassessable: Will be considered not assessable when the total weight of submitted assessment activities falls below 1/3 of the total course grade. Unexcused absences from graded activities may contribute to this determination.

Artificial intelligence: For this course, the use of Artificial Intelligence (AI) technologies is permitted exclusively for tasks explicitly indicated in class. Students must clearly identify any parts generated with these technologies, specify the tools used, and include a critical reflection on how AI has influenced the process and final outcome of the assignment. Failure to disclose the use of AI in this assessed activity will be considered a breach of academic integrity and may result in a partial or total penalty to the assignment grade, or more serious sanctions in severe cases.

Irregularities: The performance of any irregularity in an evaluation act (academic fraud, plagiarism or improper use of AI, unless this use is expressly authorized by the teaching guide), which may lead to a significant variation in the grade, assumes that this act will be graded with a 0. In the event that the teaching guide foresees that in order to pass the subject it is an essential requirement to have obtained a minimum grade in this evaluation act or that there are several irregularities in the evaluation acts of the same subject, the final grade of this subject is 0. Apart from this, a disciplinary process may 7 be instructed to the student that incurs any of these irregularities.

Any student suspected of submitting assignments that have been generated by AI, written by others or copied; include unattributed AI-generated content, or fall outside the permitted scope, may be asked to provide the preliminary work or other materials that can demonstrate it is original work and the result of their own authorship. They may also be asked to separately explain or justify their work. Teachers may also use AI detection systems or carry out any verification tasks they deem appropriate. If, after review, the instructor detects irregularities, the assignment may be graded zero, and the student may be subject to further disciplinary action.

Bibliography

Bonini, Tiziano & Treré, Emiliano (2024). *Algorithms of Resistance: The everyday fight against platform power.* The MIT Press.

Bucher, Taina (2018). *If... then: Algorithmic power and politics*. Oxford University Press.

Gupta, Shaphali, et al. (2020). Digital analytics: Modeling for insights and new methods. *Journal of Interactive Marketing* 51(1), 26-43.

Kaushik, Avinash (2011). *Analítica Web 2.0: El arte de analizar resultados y la ciencia de centrarse en el cliente*. Gestión 2000.

Lara-Navarra, Pablo; López-Borull, Alexandre; Sánchez-Navarro, Jordi & Yànez, Pau (2018). Medición de la influencia de usuarios en redes sociales: Propuesta Socialengagement. *El profesional de la información*, 2018, 27(4).

Muñoz Vera, Gemma & Elosegui, Tristán (2011). *El arte de medir*: *Manual de analítica Web.* Bresca.

Perriam, Jessamy, Andreas Birkbak, and Andy Freeman (2020). Digital methods in a post-API environment. *International Journal of Social Research Methodology* 23(3), 277-290.

Rogers, Richard (2013). *Digital methods*. MIT press.

Van Atteveldt, Wouter, Damian Trilling & Carlos Arcila Calderon (2022). *Computational analysis of communication*. John Wiley & Sons.

Wolf, Christine T. (2019). *Invisible Women: Data Bias in a World Designed for Men. Ballantines* Book.

Software

For the proper follow-up of the course, we will use the following software:

- Google Analytics
- Google Data Studio
- Tableau
- Gephi
- Excel

Additionally, supplementary analytics tools may be used on an occasional basis.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this link. To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift

(TE) Theory	6	Catalan	first semester	afternoon
(PLAB) Practical laboratories	61	Catalan	first semester	afternoon