

1. BASIC INFORMATION

Course	INTERNET DATA ANALYTICS
Degree program	BUSINESS GLOBAL BACHELOR DEGREE IN MANAGEMENT AND BUSINESS ADMINISTRATION
School	SOCIAL SCIENCES
Year	SECOND
ECTS	6 ECTS
Credit type	COMPULSORY
Language(s)	ENGLISH
Delivery mode	ON SITE
Semester	SECOND SEMESTER
Academic year	2024 – 2025
Coordinating professor	GARCÍA ULL, FRANCISCO JOSÉ
Professor	ALBERT BUDICA

2. PRESENTATION

The Internet Data Analytics course offers students the tools to implement strategies based on large amounts of data in the business environment. The course begins with an introduction to the main spreadsheets, such as MS Excel or Google Spreadsheet, with the aim of mastering the different types of filtering and formulas and functions that allow importing data from the Internet to the local system or the cloud, which can serve as support in the analysis and prediction of trends and influence decision-making. In the second topic, students will work with data mining tools and techniques, for the extraction, import and export, organization, representation and presentation of analysis based on Big Data. In the third point, the different techniques for monitoring users on the Internet will be studied, which allow the collection of data such as geolocation, information about equipment and users behavior on the web, to design user profiles and segment target audiences. Topics 4 and 5 will study the most popular Web Analytics tools (such as Google Analytics), as well as the different systems for collecting behavioral data on social networks. Finally, in topic 6 the basic concepts of information security and the main threats in aspects related to cybersecurity and physical security of devices will be studied.

3. LEARNING OUTCOMES

- **LEARNING OUTCOMES OF THE DEGREE PROGRAMME**

Knowledge

KN02. Knowledge of statistical and econometric tools for the analysis of economic and business variables.

KN04. Ability to recognise technological and innovation strategies, as well as technological analysis tools and the technological capacities of the company as a means of growth, development and improvement of its competitiveness.

Competences

CP08: Ability to analyse, integrate and evaluate information from the economic environment, necessary for decision-making.

CPT02. Conveying messages (ideas, concepts, feelings, arguments), both orally and in writing, strategically aligning the interests of the different agents involved in communication.

CPT03. Use information and communication technologies for searching and analysing data, research, communication and learning.

CPT06. Integrate analysis with critical thinking in a process of evaluating different ideas or possibilities and their potential for error, based on objective evidence and data, leading to effective and valid decision-making.

CPT07. Adapt to adverse, unexpected, stressful situations, whether personal or professional, overcoming them and even turning them into opportunities for positive change.

CPT08: Show ethical behaviour and social commitment in the performance of the activities of a profession, as well as sensitivity to inequality and diversity.

- **LEARNING OUTCOME OF THE SUBJECT**

Analyse user behaviour on the Internet. Master the use of the most common analytical tools.

Identify the available sources that provide information about user behaviour.

Extract relevant information to infer user behaviour.

Analyse user profiles.

4. CONTENT

The subject is organized into five learning units, which, in turn, are divided into themes:

Unit 1. Principles of Internet user behavior analysis (“web analytics”).

1.1. Computer Basics

1.2. Brief history of the Internet.

1.3. MS Excel Basics

1.4. Google Suite Basics

Unit 2. Analysis of traces on the Internet, such as logs or cookies.

2.1. Properties and use of cookies

2.2. Internet without cookies and disruptive technologies

2.3. data search

2.4. data formats

2.5. Data extraction

2.6. information organization

2.7. graphical presentations of data

Unit 3. User behavior on the Internet: access, browsing, time spent on sites.

3.1. Monitoring technologies

3.2. behavioral segmentation

3.3. Introduction to HTML, hypertext and tracking codes

3.4. anonymity technologies

Unit 4. User behavior analysis tools, such as Google Analytics, Amplitude, Social Analytics.

4.1 Introduction to Google Analytics

4.2. Identification of main KPIs

4.3. Installation of Google Analytics on a website

4.4. Google Analytics Certification (basic and advanced)

Unit 5. Analysis of user profiles.

- 5.1. User profiling
- 5.2. Introduction to social media analytics systems
- 5.3. Analytics on Facebook and Instagram
- 5.4. Twitter analytics and hashtag tracking
- 5.5. Analytics on LinkedIn and Google Business
- 5.6. Other web audience monitoring systems

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Master class
- Case method
- Cooperative learning
- Problem-based learning
- Project-based learning
- Field experiences
- Simulation environments

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
LA1 Master class	15
LA2 Asynchronous Master class	5
LA3 Autonomous work	35
LA4 Oral presentations	15
LA5 Case analysis and problem solving	20
LA6 Exercises / projects	20
LA7 Participatory group activities	20
LA8 Visits / external stays	5
LA9 Knowledge tests	5
LA10 Tutorships	10
TOTAL	150

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Campus-based mode:

Sistema de evaluación	Peso
Knowledge tests	40%
Case analysis and problem solving	10%
Reports and writings	10%
Oral presentations	5%
Participation in debates and forums	5%
Exercises / projects	30%

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

7.1. First exam period

To pass the course in the first exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 4.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

7.2. Second exam period

To pass the course in the second exam period, you must obtain a final grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 4.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

The student must deliver the activities not successfully completed in the first exam period after having received the corresponding corrections from the professor, or those that were not delivered in the first place.

8. SCHEDULE

En este apartado se indica el cronograma con fechas de entrega de actividades evaluables de la asignatura:

Assessable activities	Deadline
Activity 1. Google Spreadsheets	Week 2
Activity 2. Data mining	Week 5
Activity 3. Tracking codes	Week 7
Activity 4. Google Analytics Diploma	Week 10
Activity 5. Social Analytics presentation	Week 13
Activity 6. Case study: information security	Weeks 14-15
Actividad 7. Knowledge test	Weeks 16-17

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. BIBLIOGRAPHY

The recommended bibliography is:

- Castellanos Nieves, D.; Quesada Martínez, M.; Fernández Breis, J. "Aplicaciones de las nuevas tecnologías a la formación en el ámbito de la salud". Madrid: Dykinson, 2018
- Feldstein, S. "The Rise of digital repression: how technology is reshaping power, politics, and resistance". New York, NY: Oxford University Press, 2021
- Fernández-Quijada, D.; Ramos-Serrano, M. "Tecnologías de la persuasión: Uso de las TIC en publicidad y relaciones públicas". Barcelona: UOC, 2014
- García-Ull, F.J. "Manual de ejercicios para el análisis de datos en Internet". Valencia. Papers, 2024
- Maciá Pérez, F.; García Chamizo, J.M.; Mora Gimeno, F. J. "Desarrollo de grandes aplicaciones distribuidas sobre internet". New York: DIGITALIA, 2005
- Mella Méndez, L.; Moreno Solana, A.; Nuñez-Cortés, P. "Nuevas tecnologías y nuevas maneras de trabajar". Madrid: Dykinson, 2017
- Sanagustín Fernández, E. "Plan de contenidos para medios sociales". Barcelona. UOC, 2017
- Treiblmaier, H.; Clohessy, T. "Blockchain and Distributed Ledger Technology Use Cases Applications and Lessons Learned". Springer International Publishing, 2020
- Van Tulder, R.; Verbeke, A.; & Piscitello, L. "International Business in the Information and Digital Age". Bingley: Emerald Publishing Limited, 2018

A wide variety of academic articles will be recommended during classes to support this basic bibliography.

10. EDUCATIONAL GUIDANCE AND DIVERSITY UNIT

From the Educational Guidance and Diversity Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the student's inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities.

From this unit we offer to our students:

1. Accompaniment and follow-up by means of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing equal opportunities for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.
4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:
unidad.diversidaduev@universidadeuropea.es

11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “surveys” section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.