TECHNICAL SHEET OF THE SUBJECT

Data of the subject

Subject name	Marketing Analytics
Subject code	FCEE-BA-513
Mainprogram	Bachelor's Degree in Business Analytics
Involved programs	Grado en Análisis de Negocios/Business Analytics y Grado en Relaciones Internacionales [Fourth year] Grado en Análisis de Negocios/Business Analytics y Grado en Relaciones Internacionales [Third year] Grado en Análisis de Negocios/Business Analytics y Grado en Derecho [Fifth year] Grado en Análisis de Negocios/Business Analytics y Grado en Derecho [Fourth year] Grado en Administración y Dirección de Empresas y Grado en Análisis de Negocios/Business Analytics [Fourth year] Grado en Ingeniería en Tecnologías de Telecom. y Grado en Análisis de Negocios/Business Analytics [Fourth year]
Level	Reglada Grado Europeo
Quarter	Semestral
Credits	6,0 ECTS
Type	Obligatoria (Grado)
Department	Departamento de Marketing
Coordinator	Veronica Rosendo Rios
Office hours	Prior notification by mail

Teacher Information

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SPECIFIC DATA OF THE SUBJECT

Contextualization of the subject

Contribution to the professional profile of the degree

The objective of this subject is to provide students with the ability to locate, extract, evaluate, and derive value from all data collected by the company and other stakeholders, applying it to commercial decision-making. By understanding the nature of different analytical tools and data types, students will learn to apply them to key marketing decisions, such as market description and competitor analysis, identification of business opportunities, market and customer segmentation, brand positioning, panel data analysis, and forecasting.

Prerequisites

Marketing Fundamentals, Big Data Fundamentals, Introduction to Programming, Machine Learning

Competencies - Objectives

Competences

GENERALES

CG02		Capacidad de análisis de datos masivos procedentes de diversas fuentes: texto, audio, numérica e imagen
	RA1	Buscar, conocer, sintetizar y utilizar adecuadamente datos primarios y secundarios procedentes de diversas fuentes.
	RA2	Conocer y usar Internet para buscar y manejar información, textos y datos
	RA3	Discernir el valor y la utilidad de diferentes fuentes y tipos de información.
CG03		Resolución de problemas y toma de decisiones en un entorno de datos masivos tanto cuantitativos como cualitativos
	RA1	Identificar y definir adecuadamente y proactivamente el problema y sus posibles causas
	RA2	Plantear posibles soluciones pertinentes y diseñar un plan de acción para su aplicación.
	RA3	Reconocer y buscar alternativas a las dificultades de aprendizaje teórico y práctico.
CG07		Capacidad de liderazgo y trabajo en equipo, en la sociedad de la información
	RA1	Participar de forma activa en el trabajo de grupo compartiendo información, conocimientos y experiencias
	RA2	Desarrollar su capacidad de liderazgo y no rechazar su ejercicio

	RA3	Desarrollar estrategias y tácticas para hacer que se incorporen todos los miembros del equipo, tratando siempre de alcanzar acuerdos y objetivos comunes.
ESPECÍFICAS		
CE27		Ser capaz de identificar las fuentes más adecuadas y analizar datos para transformarlos en información útil para la toma de decisiones a problemas de marketing
	RA1	Conocer y comprender el alcance de los modelos, procesos, herramientas y prácticas asociadas al análisis de marketing.
	RA2	Realizar los análisis adecuados para visualizar los datos y/o obtener la información necesaria aplicando las herramientas de data mining (análisis exploratorio y descriptivo, predictivo, de agrupamiento, entre otros)
	RA3	Dar recomendaciones sólidas para resolver problemas de negocio reales, comunicándolas de manera eficaz

THEMATIC BLOCKS AND CONTENTS

Contents - Thematic Blocks

Introduction: Trends in Marketing Analytics

1. Marketing and studies

2. From traditional market research and panels to the "analytical era"

3. Dat-driven business models: typology and trends

4. Emerging functions and trends in marketing analytics

5. Ethical issues in the "analytical era"

BLOCK 1. VALUE

1. Data as assets

2. ROI and KPIs in data-driven marketing

3. Value for the company

4. Value for the consumer

5. Value for society

BLOCK 2. SOURCES

1. The 4 Vs in the marketing context

2. Typology of sources

3. Data for marketing

4. Storing, integrating and syncronizing

BLOCK 3. CAPABILITIES

1. Competencies and profiles

2. Systems and tools (and suppliers)

3. Processes

4. Organization

BLOCK 4: ANALYTICS

1. Review on classic data processing

2. Descriptive analytics

3. Prospective analytics

4. Prescriptive analytics

5. Visualization and 'business intelligence'

Ciclo 5: PRACTICE AND WORKSHOPS

These activities may include:

Customer segmentation

Customer churn/ Customer lifetime value

AB Testing

Conjoint Analyses

Text analytics/ SEM strategy

Ethical cases

TEACHING METHODOLOGY

General methodological aspects of the subject

The objective pursued by the work methodology is twofold. First, the student must be fully aware of the key concepts and problems for

each stage of a value creation process based on the exploitation of data in the marketing context, and know how to implement them to analyze and design specific processes. Second, that the student consistently reinforces his technical skills with computer tools that cover a wide range of archetypal marketing functions.

For the first objective, the teacher will clearly organize each of the four key stages in blocks, will alternately resort to expository pedagogy and case studies, with a corresponding evaluation of the knowledge acquired and the ability to apply it, systematically for each stage. In addition to using slides available to the student, the teacher will provide a bibliography and documents that expose or collect all the expected basic knowledge. Likewise, the teacher will make adapted case studies available to the student.

For the second objective, each of the analytical techniques to be worked on will be presented; For each of them, a specific number of technical operations will be identified for which a domain is contemplated; and will be associated with key marketing functions (for example: performing customer segmentation based on CRM data; carrying out different analysis related to a brand ...). The mastery of some operations will be controlled individually with small exercises, the ability to achieve a more general purpose with each tool will be evaluated with group deliveries in a professional format.

In-class methodology: Activities

Master classes, case resolutions individually and in groups, mini-tests and corrections, workshops with tutorials and tests, oral presentations of collective work

Out of the class methodology: Activities

Personal study and review, personal case readings, preparation of materials for classes, preparation of workshops, individual and group practices, completion of deliveries in professional format.USE OF AI

USE OF AI

The course is classified as Level 3 on the institutional AI Assessment Scale (Perkins et al., 2024), with special conditions. This means students may use AI to collaborate on specific tasks such as writing, refining, and evaluating their work, provided that:

-they critically assess and modify any AI-generated content,

-and they document their AI use in detail.

Unrestricted or uncontrolled use is not allowed. Students must demonstrate critical thinking to ensure academic integrity and their own learning.

For non-generative AI, students must indicate which tools they used, in which parts of the work, and the keywords used (if applicable).

For generative AI, they must specify: the tools used, the prompts or instructions given, and the specific sections of the work where the tools were applied.

SUMMARY STUDENT WORKING HOURS

CLASSROOM HOURS

Lecciones de Carácter expositivo	Ejercicios y resolución de casos y de problemas
18.00	42.00
NON-PRESENTIAL HOURS	
Estudios individual y/o en grupo, y lectura organizada	Ejercicios y resolución de casos y de problemas
30.00	60.00
	ECTS CREDITS: 6,0 (150,00 hours)

EVALUATION AND CRITERIA

The use of AI to produce full assignments or substantial parts thereof, without proper citation of the source or tool used, or without explicit permission in the assignment instructions, will be considered plagiarism and therefore subject to the University's General Regulations.

Evaluation activities	Evaluation criteria	Weight
Exam	Concepts acquisition Application of theory in practice	50 %
Group project assignments	Application of theory to practice Troubleshooting Generation of innovative solutions Format and presentation of results Preparation of activities and discussions in class	30 %
Individual activities	Individual tests	20 %

Ratings

To pass the subject, the student must have passed the practical part and the theoretical part separately with at least a 5 (out of 10) in each of them.

Note on evaluation in extraordinary call:

The part(s) that students have passed will be saved for the extraordinary call; Students will only have to re-sit for the failed part(s) in an extraordinary call.

If the student has failed all the parts, in the extraordinary call the evaluation and qualification of the subject will be distributed as follows:

- 50% practical part: individual practical test or exercises

- 50% theoretical part: individual content exam

Students must contact their professor in advance of the resit date if they need to retake any of the parts, and they will be provided instructions.

Note on repeat students

These students will be exempt from coming to class and their final grade will be the grade from the theoretical exam in the corresponding call. However, these students are suggested to contact their teacher to ensure proper progress of the course.

Note on the use of ChatGPT or other generative artificial intelligence

The improper use of ChatGPT or other generative artificial intelligence (GAI) will be considered a serious offense as stated in the General Regulations of the University, art. 168.2.e as: "carrying out actions aimed at falsifying or defrauding the academic performance evaluation systems." The consequences of this will be "the temporary expulsion of up to three months or the prohibition of taking the exam in the next call to the imposition of the sanction, in one or several subjects in which the student is enrolled, [...] apart from assuming the grade of failure (0) in the respective subject, [...] (and) the prohibition of taking the exam in that subject in the next call." In this regard, the use of ChatGPT or other IAG for the complete completion of individual or group work will be considered improper (and therefore prohibited), since its use would seriously compromise the ability of these evaluation systems to assess the acquisition. by the student of the subject's own competencies. In any case, if use is made in any of the parts of the mentioned works, it will be mandatory to explicitly declare the parts in which it has been used, as well as to add as an annex to the work the prompt used to obtain the information. The use or not of ChatGPT will be verified, among other methods, through questions about the work that the teacher will do to the student or work groups.

WORK PLAN AND SCHEDULE

Activities	Date of realization	Delivery date
Exam	According to official calendar	
Talleres	According to the schedule available to the student	
Minitest	According to the schedule available to the student	
Casos prácticos	According to the schedule available to the student	

BIBLIOGRAPHY AND RESOURCES

Basic Bibliography
Books
VERHOEF, Peter C., KOOGE, Edwin, et WALK, Natasha. Creating value with big data analytics: Making smarter marketing decisions. Routledge, 2016.

VENKATESAN, Rajkumar, FARRIS, Paul, et WILCOX, Ronald T. Cutting-edge marketing analytics: real world cases and data sets for hands on learning. Pearson Education, 2015.

Notes

Course notes

Teacher slides (in the platform)

Other resources

Cases and self-assessment materials (in the platform)

Tutorials

Websites

GOOGLE ANALYTICS

https://analytics.google.com/analytics/academy/course/6

https://www.javierbalcazar.com/tutorial-google-analytics-guia-pincipiantes/

CRM en Excel® y Salesforce®

https://www.youtube.com/watch?v=4DeizX2ZYtg

https://www.youtube.com/watch?v=5RiMhPipoUI

https://www.youtube.com/watch?v=YYUiGs1dFno

TEXT MINING

https://www.youtube.com/watch?v=IT4Kosc_ers

https://www.youtube.com/watch?v=-JW6_kcHDj4

TUTORIALS for Mircosoft® Power BI

https://www.youtube.com/watch?v=AuYzsfXKkbM

https://www.youtube.com/watch?v=yfG6M0AAXFQ

https://servicios.upcomillas.es/sedeelectronica/inicio.aspx?csv=02E4557CAA66F4A81663AD10CED66792