



## COURSE DATA

### DATA SUBJECT

**Code:** 40101  
**Name:** Multivariate techniques in market research  
**Cycle:** Master's Degree  
**ECTS Credits:** 5  
**Academic year:** 2025-26

### STUDY (S)

Degree	Center	Acad. year	Period
2114 - Master's Degree in Marketing and Market Research	Facultat d'Economia	1	First quarter

### SUBJECT-MATTER

Degree	Subject-matter	Character
2114 - Master's Degree in Marketing and Market Research	Market strategic diagnosis in marketing planning	COMPULSORY

### COORDINATION

GIL SAURA ROBERTO

## SUMMARY

Market research is a central element in the understanding of the environment and the key to successful marketing planning. The data analysis tools constitute a basic support to underline the reality of our hypotheses or assumptions about how the market consumer behaves. The need to apply them with criteria, but also from a very applied perspective, justifies the follow-up of this subject.

The subject **Multivariable Techniques of Market Research** provides the student with an applied view of what analysis tools can be applied to deepen the knowledge of the market that led him to develop an investigation and how to apply them rigorously.

The **generic objective** of this subject is to know how to choose the appropriate analysis technique for each objective problem of market research pursued, apply it rigorously and know how to interpret and communicate their results.

## PREVIOUS KNOWLEDGE

### RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE



There are no specified enrollment restrictions with other subjects of the curriculum.

## OTHER REQUIREMENTS

In relation to other subjects of the same degree, no enrollment restrictions have been specified with other subjects of the study plan. The previous knowledge is the one of access to the Master.

## COMPETENCES / LEARNING OUTCOMES

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Be able to integrate new technologies in their professional and/or research work.

Capacidad de análisis y síntesis

Capacidad de análisis y síntesis de información

Capacidad de relacionar los conocimientos teóricos y proponer nuevos conocimientos para el avance científico.

Capacidad para interpretar desde la óptica de marketing los resultados de las técnicas de análisis multivariable

Capacidad para redactar y presentar de forma clara a cualquier tipo de público informes de investigación de mercados resultantes de la aplicación de técnicas multivariables

Capacidad para tomar decisiones

Capacidad para transmitir información y hacerse entender

Conocimiento de las técnicas de análisis multivariable comúnmente aplicadas en marketing

Critically analyse one's own work and that of colleagues.

Escoger la técnica de investigación de mercados adecuada al problema planteado.

Habilidad para argumentar desde criterios razonables.

Habilidad para argumentar desde criterios razonables las decisiones adoptadas en el ámbito de marketing.

Habilidad para tomar decisiones y resolver problemas aplicando los conocimientos teóricos adquiridos.

Have a proactive attitude towards possible changes that may occur in their professional and/or investigative work.

Identificación de los tipos de datos necesarios para la correcta aplicación de las técnicas de análisis multivariable aplicadas al marketing

Know how to write and prepare presentations to present and defend them later.

Manejar los programas informáticos necesarios para la introducción y análisis de los datos en la



investigación marketing.

Poseer las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo.

Presentar documentos e informes en marketing e investigación comercial.

Realizar una adecuada segmentación y selección del público objetivo.

Redactar documentos e informes en marketing e investigación comercial.

Saber aplicar los conocimientos adquiridos y ser capaces de resolver problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio.

Saber comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades.

Saber realizar las labores propias de su profesión, tanto en empresas privadas como en organismos públicos.

Saber trabajar en equipo con eficacia y eficiencia.

Ser capaces de buscar, ordenar, analizar y sintetizar la información, seleccionando aquella que resulta pertinente para la toma de decisiones.

Ser capaces de integrar conocimientos y enfrentarse a la complejidad de formular juicios a partir de una información que, siendo incompleta o limitada, incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios.

Ser capaces de tomar decisiones, desarrollar acciones y resolver problemas en marketing.

Ser capaces de tomar decisiones tanto individuales como colectivas en su labor profesional y/o investigadora.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

## DESCRIPTION OF CONTENTS

### 1. Basic tools

1.1 Univariate basic statistics

1.2 Tests of normality

1.3 Metrics and non-metric dependency tests

1.4 Tests of metric and nonmetric differences



## 2. Tools for positioning analysis

- 2.1 Correspondence analysis
- 2.2 Analysis of components

## 3. Tools for segmentation

- 3.1 Cluster Analysis

## 4. Explanation and prediction of metric variables (multiple regression)

- 4.1 Regression analysis

## 5. Workshop on R

### WORKLOAD

#### PRESENCIAL ACTIVITIES

Activity	Hours
Seminar	10,00
Group work	3,50
Computer classroom practice	30,00
<b>Total hours</b>	<b>43,50</b>

#### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	9,00
Individual or group project	10,00
Independent study and work	4,00
Preparation of lessons	45,00
Preparation for assessment activities	22,50
Resolution of case studies	0,00
<b>Total hours</b>	<b>90,50</b>

### TEACHING METHODOLOGY

- Theoretical classes participatory lecture.



- Resolution of practical cases.

- Seminars

The proposed methodology can be developed both in person and remotely if the circumstances require it.

## EVALUATION

- Continuous evaluation through 5 practical cases (85%).
- Attendance and participation / performance in the planning and development of practical cases (15%)
- Final practical theoretical exam, if the subject is not passed with the continuous assessment. (85% - alternative to continuous evaluation)

If necessary, the weight of academic assignments may be increased, to adjust to possible teaching situations until reaching 100% of the grade.

With reference to **academic honesty and behavior**, the conduct consisting of cheating in an exam or plagiarizing an "assessable" work, is contrary to the duties of students included in both state and internal UV regulations. The immediate consequence of this type of conduct will be, in any case, the qualification with a zero and the failure of the subject, in accordance with the Regulation of Evaluation and Qualification (hereinafter REC) approved by the Government Council on May 30. of 2017 (art. 13 section 5); the University Student Statute, approved by RD 1791/2010, of December 30; and the Letter of rights and rights of the students of the University of Valencia, approved by Agreement of the Governing Council of October 19, 1993 and modified by ACG of April 30, 1998. All students are told that they cannot be used mobile phones or any other unauthorized electronic device or document. Any student who uses a mobile phone both in class, due to the existence of continuous assessment, and in the exam, will be invited to leave the classroom and will obtain a numerical grade of zero in the corresponding test (art. 13, section 6). The same type of conditions will apply to smart watch terminals or similar. The use of laptops or digital tablets is allowed for taking notes or viewing teaching material.

All of the above measures will be applied regardless of the disciplinary procedure that may be instituted against the student and, if possible, the appropriate sanction in accordance with current regulations (art. 13, section 7).

## REFERENCES

- Materiales del curso. En el aula virtual se colgarán antes de cada sesión los apuntes, transparencias y bases de datos necesarias para el desarrollo de las sesiones.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1999). Análisis multivariante (Vol. 491).



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- Uriel, E., & Manzano, J. A. (2002). Análisis multivariante aplicado (Vol. 76, pp. 270-271). Paraninfo.
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). An introduction to statistical learning (Vol. 112). New York: springer.
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- Chapman, C., & Feit, E. M. (2015). R for marketing research and analytics. New York, NY: Springer.
- ALDAS MANZANO, Joaquin; URIEL JIMENEZ, Ezequiel. Análisis multivariante aplicado con R. Ediciones Paraninfo, SA, 2017.
- Méndez, Mariano. Análisis de datos con R: Una aplicación a la investigación de mercados. ESIC Editorial, 2018.
- Chapman, Chris; Feit, Elea McDonnell. R for marketing research and analytics. New York, NY: Springer, 2015.
- JAMES, Gareth, et al. An introduction to statistical learning. New York: springer, 2013.
- Uriel, E. y Aldás, J. (2017). Análisis multivariante aplicado con R. Ediciones Paraninfo, SA.
- XIE, Yihui; DERVIEUX, Christophe; RIEDERER, Emily. R Markdown Cookbook. CRC Press, 2020.
- DIETZ, Sebastian, et al. R VisualizationsDerive Meaning from Data. Journal of the Royal Statistical Society Series A, 2021, vol. 184, no 1, p. 401-402.
- GIL-SAURA, R., 2021. Tablas y gráficos con R y R Studio. 1st ed. [ebook] València: InvestigaOnline.com. ISBN: 978-84-09-29382-7;disponible en: <https://tables.investigaonline.com>.
- Hair, J.F. Babin, J.B., Anderson, R.E., Black, W.. Multivariate Data Analysis (2022), ebook, Cengage Learning.