ANX-PR/CL/001-01
LEARNING GUIDE

SUBJECT

53002076 - Business Research Methods

DEGREE PROGRAMME

05BD - Master Universitario En Ingenieria De La Organizacion

ACADEMIC YEAR & SEMESTER

2025/26 - Semester 1

Index

Learning guide

1. Description

1.1. Subject details

Name of the subject	53002076 - Business Research Methods
No of credits	3 ECTS
Type	Optional/elective
Academic year ot the programme	Second year
Semester of tuition	Semester 3
Tuition period	September-January
Tuition languages	English
Degree programme	05BD - Master Universitario en Ingenieria de la Organizacion
Centre	05 - E.T.S. De Ingenieros Industriales
Academic year	2025-26

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Teresa Sanchez Chaparro		teresa.sanchez@upm.es	- -
Ebru Susur Donerkan (Subject coordinator)		ebru.susur@upm.es	Sin horario.

* The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

3. Skills and learning outcomes *

3.1. Skills to be learned

CB06 - Poseer y comprender conocimientos que aporten una base u oportunidad de ser originales en el desarrollo y/o aplicación de ideas, a menudo en un contexto de investigación

CB07 - Que los estudiantes sepan aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio

CB08 - Que los estudiantes sean 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

CB09 - Que los estudiantes sepan 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

CB10 - Que los estudiantes posean las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo

CE01 - Conocer y aplicar técnicas y herramientas para el manejo y análisis de grandes masas de datos

CE13 - Integrar y aplicar los conocimientos adquiridos en el conjunto de las asignaturas del Máster para el caso concreto de la iniciativa emprendedora e intraemprendedora y la gestión de proyectos en contextos empresariales

CG01 - Utilizar los conocimientos científicos y tecnológicos adquiridos en sus estudios de Grado en Ingeniería como recurso a integrar en la generación de soluciones a problemas de las organizaciones, sean éstos de funcionamiento o de diseño

CG02 - Analizar situaciones estructuradas y poco estructuradas de empresas y otras organizaciones, estableciendo diagnósticos apropiados, en particular, de carácter estratégico

CT01 - Aplica. Habilidad para aplicar conocimientos científicos, matemáticos y tecnológicos en sistemas relacionados con la práctica de la ingeniería

CT02 - Experimenta. Habilidad para diseñar y realizar experimentos así como analizar e interpretar datos

CT05 - Resuelve. Habilidad para identificar, formular y resolver problemas de ingeniería

CT06 - Es responsable. Comprensión de la responsabilidad ética y profesional

CT07 - Comunica. Habilidad para comunicar eficazmente

CT08 - Entiende los impactos. Educación amplia necesaria para entender el impacto de las soluciones ingenieriles en un contexto social global

CT09 - Se actualiza. Reconocimiento de la necesidad y la habilidad para comprometerse al aprendizaje continuo

CT11 - Usa herramientas. Habilidad para usar las técnicas, destrezas y herramientas ingenieriles modernas necesarias para la práctica de la ingeniería

CT12 - Es bilingüe. Capacidad de trabajar en un entorno bilingüe (inglés/español)

CT13 - Planifica. Organización y planificación en el ámbito de la empresa, y otras instituciones y organizaciones de proyectos y equipos humanos

CT14 - Idea. Creatividad

3.2. Learning outcomes

RA85 - Conocer y aplicar los principales enfoques y métodos de investigación utilizados en el ámbito de la organización empresarial

RA29 - Dominar habilidades y técnicas específicas de trabajo en equipo y de dirección y gestión de equipos

RA88 - Comunicar de forma clara y concisa temas complejos y especializados

RA73 - RA3 - Elegir y aplicar técnicas de predicción para variables cuantitativas y cualitativas

RA4 - Identificar, elegir y aplicar técnicas para la resolución de problemas de optimización de gran tamaño

RA74 - RA47 - Enumerar, seleccionar y aplicar herramientas y metodologías para la explotación de datos mediante modelos

RA87 - Diseñar un proyecto de investigación aplicando distintos métodos de investigación

RA3 - Elegir y aplicar técnicas de predicción para variables cuantitativas y cualitativas

RA30 - Enumerar, seleccionar y aplicar metodologías y técnicas para estimular y explotar la capacidad creativa individual y de grupo

RA10 - Identificar, elegir y aplicar herramientas y metodologías para el diseño y análisis de estrategias y políticas empresariales en contextos competitivos

RA17 - Aplicar distintas herramientas y metodologías para el diseño y puesta en práctica de estrategias y políticas de innovación en contextos competitivos

RA47 - Enumerar, seleccionar y aplicar herramientas y metodologías para la explotación de datos mediante modelos

RA83 - Aprender y dominar la metodología de revisión sistemática de la literatura, así como comprender y sintetizar adecuadamente el estado del arte sobre un tema de investigación específico

RA53 - Desarrollar un trabajo de investigación y/o aplicación de los conocimientos adquiridos en el master y para la preparación de una presentación de sus resultados mediante un documento correctamente estructurado y una exposición y defensa oral del mismo frente a un tribunal

RA84 - Comprender el concepto de ética en la investigación y su aplicación en los distintos entornos de investigación.

RA86 - Saber realizar una revisión crítica de un artículo científico

* The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

4. Brief description of the subject and syllabus

4.1. Brief description of the subject

The aim of this course is to equip students with both the analytical knowledge and practical skills necessary to understand, evaluate, and apply diverse research methods in the field of business organization. The course is structured around a highly participatory and practice-oriented approach, combining interactive lectures with critical reading, in-class debates, and hands-on assignments. By the end of the course, students will be able to design and conduct rigorous research projects and critically assess scientific literature.

Course Topics:

- Foundations of Business Research: Introduction to the role of research in business studies, types of research (exploratory, descriptive, explanatory), and the relationship between theory and method.

- Problematisation and Formulation of Research Questions: Understanding how to identify research gaps, formulate meaningful research questions, and articulate clear objectives grounded in theoretical and practical relevance.
- Academic Writing and Research Communication: Techniques for writing structured and coherent academic texts, and presenting complex ideas clearly. Introduction to citation standards, referencing, and avoiding plagiarism.
- Systematic Literature Review: Methods for conducting structured literature reviews, including search strategies, screening criteria, synthesis of findings, and identifying state-of-the-art knowledge in a specific research area.
- Qualitative Research and Case Study Methodology: Exploring qualitative data collection methods such as interviews and observations, designing case studies, coding and analysing qualitative data, and ensuring credibility and validity.
- Quantitative Research and Survey-Based Studies: Principles of quantitative research design, sampling techniques, survey development, statistical analysis, and interpreting results.
- Critical Review of Scientific Literature: Developing skills to assess the rigor, coherence, and contribution of academic publications. Emphasis on evaluating theoretical grounding, methodological soundness, and practical implications.
- Research Ethics and Integrity: Understanding ethical principles in research, including informed consent, confidentiality, data management, conflicts of interest, and institutional review processes.

4.2. Syllabus

1. Research foundations
2. Research problems and questions
3. Systematic literature review
4. Qualitative research / Case study design
5. Quantitative research
6. Academic writing and presentations
7. Research ethics
8. Critical review of scientific work

5. Schedule

5.1. Subject schedule*

Week	Type 1 activities	Type 2 activities	Distant / On-line	Assessment activities
1	**Intro and planning** Duration: 02:00 Lecture			**Class attendance, class work and participation** Other assessment Progressive assessment and Global Examination Presential Duration: 02:00
2	**Research fundamentals** Duration: 02:00 Lecture			
3	**Formalization of research questions** Duration: 02:00 Challenge-based learning			
4	**Systematic lietrature review** Duration: 02:00 Lecture			
5	**Systematic lietrature review** Duration: 02:00 Research-based learning			
6	**Systematic lietrature review** Duration: 02:00 Problem-solving class			**Systematic literature review** Group work Progressive assessment and Global Examination Presential Duration: 02:00
7	**Academic writing and presentations** Duration: 02:00 Lecture			
8	**Critical review of scientific work** Duration: 02:00 Lecture			
9	**Qualitative Research / Case Study** Duration: 02:00 Lecture			
10	**Qualitative Research / Case Study** Duration: 02:00 Research-based learning			
11	**Qualitative Research / Case Study** Duration: 02:00 Problem-solving class			**Qualitative research design** Group work Progressive assessment and Global Examination Presential Duration: 02:00

12	**Quantitative research** Duration: 02:00 Lecture			
13	**Quantitative research** Duration: 02:00 Research-based learning			
14	**Quantitative research** Duration: 02:00 Problem-solving class			**Quantitative research design** Group work Progressive assessment and Global Examination Presential Duration: 02:00
15	**Research ethics** Duration: 02:00 Additional activities			**Research design report** Individual work Progressive assessment and Global Examination Presential Duration: 02:00
16				
17				

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.

6. Activities and assessment criteria

6.1. Assessment activities

6.1.1. Assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
1	Class attendance, class work and participation	Other assessment	Face-to-face	02:00	10%	4 / 10	CT09 CT11 CT07 CB09 CT12 CB10 CT06
6	Systematic literature review	Group work	Face-to-face	02:00	25%	4 / 10	CB07 CB08 CB10 CG01 CT05 CT09 CE01 CT01 CT11 CT13 CT14 CB06
11	Qualitative research design	Group work	Face-to-face	02:00	25%	4 / 10	CB08 CB10 CT09 CT01 CT11 CT13 CT14 CT02 CG02 CB06 CB09 CG01 CB07
14	Quantitative research design	Group work	Face-to-face	02:00	25%	4 / 10	CB08 CB10 CT05 CT09 CG01 CB07 CE01 CT01

							CT11 CT13 CT14 CT02 CT08 CG02 CB06
15	Research design report	Individual work	Face-to-face	02:00	15%	4 / 10	CT07 CE13 CG02 CB06 CB09 CT12

6.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
1	Class attendance, class work and participation	Other assessment	Face-to-face	02:00	10%	4 / 10	CT09 CT11 CT07 CB09 CT12 CB10 CT06
6	Systematic literature review	Group work	Face-to-face	02:00	25%	4 / 10	CB07 CB08 CB10 CG01 CT05 CT09 CE01 CT01 CT11 CT13 CT14 CB06
11	Qualitative research design	Group work	Face-to-face	02:00	25%	4 / 10	CB08 CB10 CT09 CT01 CT11 CT13 CT14 CT02 CG02 CB06 CB09 CG01 CB07

14	Quantitative research design	Group work	Face-to-face	02:00	25%	4 / 10	CB08 CB10 CT05 CT09 CG01 CB07 CE01 CT01 CT11 CT13 CT14 CT02 CT08 CG02 CB06
15	Research design report	Individual work	Face-to-face	02:00	15%	4 / 10	CT07 CE13 CG02 CB06 CB09 CT12

6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Student has to deliver Assignment of systematic literature Review, qualitative research and quantitative research as well as the final research design report.	Individual work	Face-to-face	01:00	100%	5 / 10	

6.2. Assessment criteria

Continuous Evaluation: This modality emphasizes active participation throughout the course and regular submission of assignments, fostering progressive learning.

- Class attendance, participation, and in-class work: 10%

- Systematic Literature Review: 25%
- Qualitative Research Design Assignment: 25%
- Quantitative Research Design Assignment: 25%
- Final Research Design Report: 15%

Global Evaluation (for students who opt out of continuous assessment): This option is intended for students who choose to be evaluated based on the full body of work submitted at the end of the course.

- Systematic Literature Review: 30%
- Qualitative Research Design: 30%
- Quantitative Research Design: 25%
- Final Research Design Report: 15%

Extraordinary Evaluation: This evaluation modality applies in extraordinary cases (e.g., second or retake calls) and follows the same assessment structure as the global evaluation.

- Systematic Literature Review: 30%
- Qualitative Research Design: 30%
- Quantitative Research Design: 25%
- Final Research Design Report: 15%

7. Teaching resources

7.1. Teaching resources for the subject

Name	Type	Notes
Bibliography	Bibliography	orientative, in "other information"

8. Other information

8.1. Other information about the subject

- Berthon, Pierre, et al. "Potential research space in MIS: A framework for envisioning and evaluating research replication, extension, and generation." Information Systems Research 13.4 (2002): 416-427.
- Makadok, Richard, Richard Burton, and Jay Barney. ?A Practical guide for making theory contributions in strategic management.? Strategic Management Journal (2018).
- Alvesson, Mats, and Jörgen Sandberg. ?Generating research questions through problematization.? Academy of management review 36.2 (2011): 247-271.
- Cronin P., F.Ryan and M.Coughlan. ?Undertaking a literature review: a step-by-step approach?, P, British Journal of Nursing 17 (2008), 38-43
- Fischl Maria, Maike Scherrer-Rathje, Thomas Friedli , (2014),"Digging deeper into supply risk: a systematic literature review on price risks", Supply Chain Management: An International Journal, Vol. 19 Iss 5/6 pp. 480 - 503
- Eisenhardt, Kathleen M., and Melissa E. Graebner. ?Theory building from cases: Opportunities and challenges.? Academy of management journal 50.1 (2007): 25-32.
- Tracy, S. (2010), ?Qualitative Quality: Eight ?Big-Tent? Criteria for Excellent Qualitative Research?, Qualitative Inquiry, 16(10) 837-851.
- Haber RJ, Lingard LA. Learning Oral Presentation Skills: A Rhetorical Analysis with Pedagogical and Professional Implications. Journal of General Internal Medicine, 2001;16: 308-314
- Hughes, J., Hunter, D., Sheehan, M., Wilkinson, S., & Wrigley, A. (2010). European Textbook on Ethics in Research. Luxembourg: Publications Office of the European Union. DOI: 10.2777/17442. Available at: https://ec.europa.eu/research/science-society/document_library/pdf_06/textbook-on-ethics-report_en.pdf

Depending on the research studies done by the student, the course might impact in the different 17 SDGs.