COURSE DATA

DATA SUBJECT

Code: 44702
Name: Biomedicine and society
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2224 - Master's Degree in Research and Development in Biotechnology and Biomedicin	Facultat de Ciències Biològiques	1	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2224 - Master's Degree in Research and Development in Biotechnology and Biomedicin	Research and development in biomedicine	COMPULSORY

COORDINATION

D'OCON NAVAZA MARIA PILAR

SUMMARY

The course addresses the different aspects of biomedical research that depend on the social environment and have a direct impact on society. Bioethics principles are discussed, as well as issues arising from the application of these principles in the field of translational research. All aspects related to scientific communication in biomedicine and biomedical information will be discussed as well as the sources and tools needed to make a critical interpretation of the scientific literature. Finally, the concept of innovation is developed in the field of medicine to meet regulatory aspects of such innovation and its insertion in the market, emphasizing marketing strategies for a biomedical product

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

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Access the necessary information within the specific subject area (databases, scientific articles, etc.) and have sufficient judgement to interpret and apply it.

Apply critical reasoning and argumentation based on rational criteria.

Apply ethical and legal principles of scientific research in biotechnology and biomedicine.

Apply research experience acquired both in private companies and public organisations.

Apply science from a social and economic perspective, promoting the transfer of knowledge to society.

Aprendizaje en la redacción de artículos científicos en los campos de la Biomedicina y la Biotecnología.

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

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

Develop scientific results obtained by oneself or other scientists into practical applications with social and/or economic profitability.

Handle scientific information sources appropriately and assess them critically, integrating the information to contribute knowledge to multidisciplinary research teams.

Make rapid and effective decisions in complex situations within one's professional or research activity by developing new and innovative working methodologies adapted to the scientific/research, technological or professional field in which the activity takes place.

Master the scientific method, the design of experimental protocols and the interpretation of results in the biomedical and biotechnological fields.

Prepare, write and present reports and projects in public in a clear and coherent manner, defend them with rigour and tolerance and respond satisfactorily to any criticism that may arise from the presentation.

Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

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

Use inclusive and non-discriminatory language in all the above-mentioned areas of communication.

Work in a team, without discriminating between men and women, carry out professional or research work efficiently and acquire the ability to participate in research projects and scientific or technological collaborations.

DESCRIPTION OF CONTENTS

1. Bioethics

Ethical and legal aspects of biomedical research.
Ethical issues arising from the use of animals in biomedicine.
Ethical issues related to the use of human samples for research.
Rights and duties of patients.
The right to patient information and informed consent.
Impact of the Data Protection Act. Legal status

2. Scientific communication in biomedicine

Design, methodology and quality in oral scientific communication
Design, methodology and scientific quality of written communication
Development of information material in biomedicine

3. Sources of drug information

Biomedical databases
Analysis and critical interpretation of biomedical literature
Analysis and critical interpretation of the information provided by the pharmaceutical industry.

4. Innovative drugs

Evaluation and authorization of new medicines.
Regulatory agencies.
Quality guarantees

Techniques to analyze the behavior and preferences of customers.

5. Strategies for marketing and positioning of a product in the biomedical market

Techniques to analyze the behavior and preferences of customers. Marketing strategies long term, segmentation and market positioning
Shares of short-term marketing: product design and brand, price, distribution and communication

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Total hours	**30,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	15,00
Independent study and work	20,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	10,00
Total hours	**45,00**

TEACHING METHODOLOGY

Lectures: Aimed at obtaining basic skills. Dogmatic method is used combined with the heuristic method for the presentation of fundamental concepts and the relevant contents of the course, using the media necessary for their development.

Seminars: Case method We propose different problems to be solved by students and discussed in sessions supervised by the teacher, which will involve active student participation.

Individual work: Students conduct an oral presentation and written work will be reviewed by peers, analyzing the key items to ensure good communication.

Group work: Groups of 5-6 students develop a problem or question related to the topic of the course. The work will be presented and discussed at the seminars

EVALUATION

- Formative assessment throughout the course, based on the resolution of problems and issues (45%),
- Works presented (40%)
- Final Test (15%).

To pass the course will require attendance at 80% of the sessions and obtaining a score greater than or equal to 50% in each section evaluated.

REFERENCES

- Varios autores (2014): Marketing sanitario. Evolución-Revolución. Coord. A. Hernández y J.Mª Martínez. ESIC EDITORIAL, ISBN: 9788473569903

- Jiménez, M.A. (2015): Marketing de los servicios de la salud para no marketinianos. Editorial Pirámide. Madrid. ISBN: 9788436832907

- Marín Sánchez, C. y Pérez Cabañero, C. (2007): Fundamentos de marketing estratégico. Delta publicaciones universitarias, Madrid. ISBN: 9788496477667

- Santesmases Mestre, M. (2012): Marketing, conceptos y estrategias. Editorial Pirámide, Madrid ISBN: 9788436826135

- Lluis Montoliu José (2024). No todo vale. Next Door Publishers S.L. ISBN: 9788412753264

- Serés E, Rosich L, Bosch F. (2010) Presentaciones orales en biomedicina. Aspectos a tener en cuenta para mejorar la comunicación Fundación Dr. Antonio Esteve http://www.esteve.org

- Mabrouki K, Bosch F (2007). Redacción científica en biomedicina: lo que hay que saber CUADERNOS DE LA FUNDACIÓN DR. ANTONIO ESTEVE Nº 9, Fundación Dr. Antonio Esteve http://www.esteve.org

- Claves para una buena exposición oral (2025). Guías de la Biblioteca de la Universidad de Sevilla, https://guiasbus.us.es/exposicionoral/introduccion

- Comunicación científica: cómo comunicar resultados y proyectos en función del nivel de tu audiencia. Farmaindustria (2025), https://www.farmaindustria.es/web/jovenes-en-farma/actualidad/comunicacion-cientifica-como-comunicar-resultados-y-proyectos-en-funcion-del-nivel-de-tu-audiencia

- Base de Datos PubMed. U.S. National Libary of Medicine and the National Institutes of Health

http://www.pubmed.com

- Cochrane Library. Biblioteca Cochrane Plus http://www.cochrane.org
- EMEA. Agencia europea del Medicamento http://www.emea.eu.int/
- Agencia Española del Medicamento http://www.agemed.es
- OMS. Organización Mundial de la Salud http://www.who.int/en/