COURSE DATA

DATA SUBJECT

Code: 47011
Name: Business Management in Optics and Optometry
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2280 - Master's Degree in Advanced Optometry and Vision Sciences	Facultat de Física	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2280 - Master's Degree in Advanced Optometry and Vision Sciences	Materias Optativas	ELECTIVES

COORDINATION

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SUMMARY

The subject Business Management in Optics and Optometry provides students with essential tools for the creation, management, and development of an optical center. It covers topics ranging from economic environment analysis to strategic planning, marketing, and investment assessment. The approach is focused on applying business principles to the professional context of the optometrist, including competencies in leadership, profitability, and decision-making.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

No specific prior knowledge is required.

COMPETENCES / LEARNING OUTCOMES

2280 - Master's Degree in Advanced Optometry and Vision Sciences

Act autonomously in learning, make informed decisions in different contexts, issue judgements based on experimentation and analysis and transfer knowledge to new situations.

Analyse marketing strategies in the field of optics and optometry.

Analyse results obtained from clinical examination devices in the anterior, middle and posterior ocular segments.

Analyse the business activity sector, business strategies and competitive strategies.

Apply a rigorous method in the design phase of an experiment and in analysing data obtained during optometric research.

Apply quantitative and qualitative research methods to collect, analyse and interpret data related to optometry and eye health.

Apply techniques for evaluating and detecting visual problems in the community, such as visual screenings and basic eye health assessments.

Apply the knowledge acquired and be able to solve proplems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the field of study.

Apply various ocular examination techniques from a clinical perspective.

Assess cases that require referral to a specialist in ocular pathology.

Be able to communicate effectively, both orally and in writing, adapting to the characteristics of the situation and audience.

Become familiar with the commercialisation of products, procurement, storage, preservation and information.

Carry out differential diagnosis between normal and abnormal findings.

Collaborate effectively in work teams, taking on responsibilities and leadership roles and contributing to collective improvement and development.

Collaborate with other health professionals and community actors to develop strategies for prevention, promotion and education in visual health.

Communicate and inform the patient about all procedures and tests to be performed and clearly explain the results and diagnosis.

Conduct a clinical history appropriate to the patient's profile.

Contribute to the design, development and implementation of solutions that respond to social demands, considering the Sustainable Development Goals as a reference.

Convey scientific knowledge in the field of optometry.

Correlate malnutrition-related alterations associated with obesity, hypertension, diabetes and vitamin deficiencies, among others, with eye health and vision.

Demonstrate critical and self-critical reasoning in the field of the degree, considering aspects such as professional ethics, moral value and the social implications of the different activities carried out.

Design, implement, and evaluate visual health promotion programmes and activities at the community level, considering socioeconomic, cultural and demographic factors.

Develop skills in handling and evaluating recently developed instruments and techniques.

Discuss and analyse experimental problems and research results in optometry.

Discuss diagnostic judgements and appropriate decision-making in visual health education.

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Engage in planning and management activities within public and private health services.

Handle sources of legislation related to the optometric profession and business activity with ease.

Have ethical commitment and social responsibility, both in the care component linked to the optometrist profession and in clinical research.

Identify dietary and nutritional factors that may affect eye health and the progression of chronic eye diseases.

Identify the effects of drugs on visual function.

Identify the elements that can help protect or restore the ocular surface.

Incorporate the necessary technological improvements for the proper development of professional optometric practice.

Inform athletes about the importance of visual ergonomics and proper practices to maintain good visual health and optimal performance in their sport.

Inform patients about the importance of preventing conditions that lead to alterations of the ocular surface.

Justify the clinical usefulness of exploratory techniques that analyse the anterior, middle and posterior ocular segments.

Know and understand, within the area of the degree, inequalities based on sex and gender in society; integrate different needs and preferences based on sex and gender into the design of solutions and problem-solving.

Know how to communicate conclusions and the knowledge and rationale behind them to both specialised and non-specialised audiences clearly and unambiguously.

Plan and carry out research projects that contribute to the production of knowledge in the field of optometry.

Plan and manage time and resources, and gain experience in decision-making.

Plan biosanitary research in optics and optometry.

Promote visual health at the community level.

Propose appropriate conditions for visual ergonomics in both workplace and daily environments.

Propose creative and innovative solutions to complex situations or problems within the field of knowledge to respond to diverse professional and social needs.

Recognise abnormal signs related to ocular pathology.

Recommend appropriate ergonomic devices and tools to improve comfort and visual health, such as screens, keyboards, chairs and lighting systems.

Recommend appropriate visual ergonomic techniques and strategies to optimise sports performance, including the selection of suitable visual equipment and accessories.

Recommend ergonomic and corrective measures to optimise vision while driving.

Relate the visual and ocular effects of medication use.

Select the most appropriate ocular and visual clinical assessments related to the use of medication.

Understand advanced statistical methods applied to clinical research in optometry.

Understand different statistical calculation software programmes.

Understand environmental and cardiovascular risk factors, habits and lifestyles affecting visual function.

Understand examples of applications of current clinical exploration equipment.

Understand ocular photography: retinography.

Understand photometry aspects across various environments (indoor and/or outdoor) and their relation to the user's visual performance.

Understand regulations related to eye protection and visual performance.

Understand the aspects involved in visual fatigue and performance in activities such as screen use, driving, sports practice and learning.

Understand the effectiveness, progression and discharge in pharmacological treatments.

Understand the functional limits of human vision and their relation to age, whether in the workplace or in leisure activities, in connection with task-related visibility factors.

Understand the importance of marketing and basic concepts for its development in the business

environment related to optics and optometry.

Understand the incidence and prevalence of visual disorders.

Understand the interconnection of the three cornerstones of ergonomics (user-task-environment).

Understand the most prevalent pathologies with ocular impact.

Understand the physicochemical properties of ocular drugs and their effects on ocular pathologies including knowledge of possible adverse pharmacological reactions.

Understand the problems affecting the ocular surface and their visual impact as well as the elements that can help protect or restore it.

Understand the protein and vitamin components of food, nutrients and nutraceuticals and their impact on eye health and patients quality of life.

Understand the regulatory framework governing businesses in the field of optics and optometry and its relation to the environment.

Understand the strategies for organising and managing a company dedicated to products and services related to optometry and vision sciences.

Understand the techniques for examining the retinal nerve fibre layer.

Understand the therapeutic or diagnostic aim of drugs and their adverse effects.

Understand the types of anterior and middle segment analysers.

Understand vision problems of functional or pathological origin.

Understand what vision screening is and how it is planned in the community.

Use various ocular examination techniques from a clinical perspective.

Work in multidisciplinary teams in the health sciences.

DESCRIPTION OF CONTENTS

Topic 1. Business environment: general and specific
Analysis of the economic, social, legal, and technological factors that influence the operation of an optical center. The specific competitive environment of the optical and healthcare sector is also examined, including suppliers, customers, and regulations.

Topic 2. Internal analysis: company resources and capabilities
Exploration of the internal elements that define the competitiveness of an optical business: human, technical, financial, and intangible resources. Basic tools are applied to assess strengths

and weaknesses.

Topic 3. Business and intellectual assets
Identification of tangible assets (infrastructure, equipment) and intangible ones (brand, reputation, intellectual property) that provide differential value in an optical center and how to manage them strategically.

Topic 4. Business and development strategies
Study of the main growth and positioning strategies for small businesses in the healthcare sector: differentiation, specialization, expansion, and strategic alliances.

Topic 5. Basic marketing concepts. Digital marketing. Personal branding
Review of traditional marketing fundamentals: the 4 Ps (product, price, promotion, place) and their adaptation to the optical context. Practical cases focused on patients/clients are analyzed. Current digital promotion tools are studied: social media, SEO, online advertising, email marketing, and digital reputation management in the optical sector. Development of the optometrist¿s personal brand: professional communication, interpersonal skills, leadership, and positioning as a visual health reference.

Topic 6. Concept and characteristics of an investment. Profitability and risk. Diversification
Introduction to the basic economic principles for evaluating investment decisions in a business context, such as opening a new center, purchasing equipment, or implementing marketing actions. The relationship between expected return and assumed risk in different types of investment is studied. Diversification is also analyzed as a strategy to reduce risk in the management of an optical business.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	15,00
Seminar	15,00
Total hours	**30,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	20,00
Preparation of lessons	0,00
Preparation for assessment activities	5,00
Resolution of case studies	0,00
Total hours	**45,00**

TEACHING METHODOLOGY

The course combines lectures and seminars aimed at promoting both knowledge acquisition and active student participation.

Lectures:
The expository method (lecture-based teaching) is used, supported by projected audiovisual materials (images, videos, and diagrams), facilitating the understanding of concepts and techniques.

Seminars:
Quizzes and problem-solving exercises based on the delivered content are proposed, encouraging discussion and the practical application of the studied procedures.

EVALUATION

The assessment system combines individual tests and group work, with the following components and weightings:

- Theoretical or theoretical-practical exam: written on-site test that may include multiple-choice questions, essay questions, or practical case resolutions related to business management, economic analysis, or marketing strategies. This accounts for 50% of the final grade.
- Assessment of group or individual projects: students will develop projects related to business plans, SWOT analysis, investment simulations, or marketing campaign proposals for optical centers. This accounts for 50% of the final grade.

REFERENCES

Basic references:

- Emery D.R., Finnerty J.D., Stowe J.D. *Fundamentos de administración financiera.* Pearson Educación; 2000. ISBN 978-9701702741
- Koontz H., Weihrich H., Cannice M. *Administración, una perspectiva global e empresarial.* McGraw-Hill Interamericana de España; 2012. ISBN 978-6071507594
- Kotler P., Armstrong G. *Principios de marketing.* Pearson Educación; 2018. ISBN 978-8490356128