

**COURSE DATA****Data Subject**

<b>Code</b>	43866
<b>Name</b>	Advanced contactology
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	4.5
<b>Academic year</b>	2023 - 2024

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. Period year</b>
2175 - Master's Degree in Advanced Optometry and Vision Sciences	Faculty of Physics	1 Second term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
2175 - Master's Degree in Advanced Optometry and Vision Sciences	2 - Advanced contactology	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
LOPEZ ALEMANY, ANTONIO	280 - Optics and Optometry and Vision Sciences

**SUMMARY**

The aim of the course is to lay de foundations so that students can begin and deepen the knowledge of adaptations of contact lenses on ectactic corneas (keratoconus, pellucid marginal degeneration, etc) of after surgery (refractive, keratoplasties, etc), change the power of cornea diopter to temporarily compensate for ametropia, wear contact lenses as a therapeutic vehicle and know the indications and adaptations of ocular prosthesis.

**PREVIOUS KNOWLEDGE**



### **Relationship to other subjects of the same degree**

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

### **Other requirements**

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

It is appropriate, having taken and passed the subjects relating to contact lenses of the degree of Optometry and Optics.

## **COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)**

### **2175 - Master's Degree in Advanced Optometry and Vision Sciences**

- 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.
- Know how to work in multidisciplinary teams reproducing real contexts and contributing and coordinating their own knowledge with that of other branches and participants.
- Participate in, lead and coordinate debates and discussions, be able to summarize them and extract the most relevant conclusions accepted by the majority.
- Use different presentation formats (oral, written, slide presentations, boards, etc.) to communicate knowledge, proposals and positions.
- Proyectar sobre problemas concretos sus conocimientos y saber resumir y extractar los argumentos y las conclusiones más relevantes para su resolución.
- Tener capacidad de análisis crítico de la información especializada en los ámbitos propios del máster.
- Tener un compromiso ético y responsabilidad social, tanto en lo que compete a la componente asistencial ligada a la profesión de óptico-optometrista como a lo que respecta a la investigación clínica.
- Tener capacidad de trabajo en equipos multidisciplinares en el área de las ciencias de la salud.
- Conocer la sistemática de la adaptación de lentes de contacto en poblaciones especiales.



- Conocer los tipos de biopolímeros de uso de forma terapéutica sobre la superficie ocular.
- Conocimiento de la sistemática a emplear para la adaptación de una lente de contacto de diseños especiales sobre la superficie ocular compensando alteraciones morfológicas y no induciendo ningún tipo de iatrogenia.
- Conocimiento de las técnicas de lección de lentes en los diferentes tipos de ortoqueratología.
- Capacitar al alumno para que conozca que características oculares son las mas adecuadas para intentar eliminar o disminuir temporalmente la ametropía ocular.
- Capacitar al alumno para conocer en que casos patológicos está indicada una lente de contacto te tipo corneal o escleral.
- Diseño y características de fabricación de las prótesis oculares y de anejos. Procesos de adaptación de las prótesis oculares ante los distintos casos posibles
- Conocer la legislación aplicable en el ejercicio profesional, con especial atención a las materias de de igualdad de género entre hombre y mujeres, derechos humanos, solidaridad, protección del medio ambiente y fomento de la cultura de la paz.

## LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

Knowing how to identify morphological alterations of the cornea that can be signals of improved vision with contact lenses.

Knowing how to use contact lenses as a means of therapeutic action at the pathology of cornea.

Knowing how to change the morphology corneal refractive temporary compensatory purpose.

Know the signs of scleral lenses support and how to adapt.

Know the handling of contact lenses in pediatric age.

Knowing the different types of reconstructive elements for the eyeball cavity and adnexa.

## DESCRIPTION OF CONTENTS

### 1. CONTACT LENSES

UNIT I: ORTHOKERATOLOGY

UNIT II: CONTACT LENS POST CORNEAL SURGERY

UNIT III: CONTROL OF THE DEVELOPMENT OF MYOPIA

UNIT IV: THERAPEUTIC CONTACT LENSES

UNIT V: HYBRID CONTACT LENSES

UNIT VI: CONTACT LENSES FOR CORNEAL MORPHOLOGICAL ALTERATIONS:  
KERATOCONUS

UNIT VII: SEMI-SCLERAL AND SCLERAL CONTACT LENSES

UNIT VIII: PEDIATRIC CONTACT LENSES



## 2. EYE PROSTHESIS

UNIT IX: INTRODUCTION TO EYE PROSTHESIS. GUYS. CAUSES OF EYE LOSS AND ANNEXES. ADAPTATION AND TECHNIQUES OF THE OCULAR PROSTHESIS. COMPLICATIONS IN THE USE OF EYE PROSTHESIS. MAINTENANCE AND HYGIENE OF OCULAR PROSTHESIS

## WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	24,00	100
Seminars	12,00	100
Preparation of evaluation activities	10,00	0
Preparing lectures	42,00	0
Preparation of practical classes and problem	18,00	0
<b>TOTAL</b>	<b>106,00</b>	

## TEACHING METHODOLOGY

The teaching methodology of this matter has two types of classroom activities:

Lectures (0.9 ECTS)

Classes modality (with possibility to include semi-on line or on line modalities) where the theoretical contents of the subject will be taught. The use of audiovisual methods, that illustrate more clearly the theoretical content and examples to develop will be strengthened.

Theoretical small group sessions (0.48 ECTS)

They are sessions dedicated to individual work or student group, with proposed or actual cases of scientific papers related to the subject to be analyzed and studied individually or by group. Group interactivity search through oral presentations and classroom examples and accounted in continuous assessment.

In the semi-on line or online mode pupils perform these sessions through the mechanisms provided by the virtual classroom for interconnection to several bands.

Individualized tutoring:

to be held both in person or online through the mechanisms offered by the Virtual Classroom of the University of Valencia.

## EVALUATION

The evaluation was done through two sections:

Theoretical contents: Examination test (80%)



Oral presentation in class (20%)

To be able overcome the matter it will be necessary:

First, to reach 50% of the mark of the test (4 out of 8) and

Second, add at least with the note of both sections 5 out of 10.

## REFERENCES

### Basic

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- López Alemany, A; Ed.  
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Xàtiva, Ulleye, 2007. Págs, 174
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BIOPOLIMEROS Y SUPERFICIE OCULAR: LENTES DE CONTACTO. Xàtiva. Editorial Ulleye 2010.  
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Sociedad Española de Oftalmología 1990.  
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- López Alemany, A; Ed. LENTES DE CONTACTO Y SUPERFICIE OCULAR: BIOMATERIALES.  
Xàtiva. Editorial Ulleye 2020. Pág. 385.

### Additional

- Mountford J; Ruston D; Trusit D.  
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Edinburgh, Butterworth/Heinemann, 2004. Págs 306.
- Brito, C; Sánchez, A; Bueno, J.  
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- Lowther, G E.  
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- González-Méijome, JM; Villa Collar, C..  
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