

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

Code	34302
Name	Paediatric optometry
Cycle	Grade
ECTS Credits	4.5
Academic year	2020 - 2021

Study (s)

Degree	Center	Acad. year	Period
1207 - Degree in Optics and Optometry	Faculty of Physics	3	Second term

Subject-matter

Degree	Subject-matter	Character
1207 - Degree in Optics and Optometry	12 - Optometry	Obligatory

Coordination

Name	Department
HERNANDEZ ANDRES, ROSA MARIA	280 - Optics and Optometry and Vision Sciences

SUMMARY

The first years of life is a very dynamic period in which the individual is acquiring each of the visual functions, not present at birth. Over the course will be presented in that time the individual reaches the values of adult visual function and the importance of this in clinical practice. On the other hand, the pediatric patient has a number of features that make it different from adult patient and logically have a great importance in exploring these patients, so in this course will explain how to scan a patient optometric according to the pediatric age and clinical findings differ from the non-normal normal.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

It is recommended that the student has passed the exams:

OPTOMETRY I,
OPTOMETRY II,
OPTOMETRY III,

OUTCOMES

1207 - Degree in Optics and Optometry

- Desarrollar habilidades de comunicación, de registro de datos y de elaboración de historias clínicas.
- To have and to understand the fundamentals of Optometry for its correct clinical and healthcare application.
- Knowing how to apply the knowledge acquired to professional activity, knowing how to solve problems and develop and defend arguments.
- Being able to gather and interpret relevant data to make judgments.
- Being able to transmit information, ideas, problems and solutions to both a specialized and non-specialized audience.
- Development of learning skills necessary to undertake further studies with a high degree of autonomy.
- To acquire the skills for the interpretation and clinical judgment of the results of visual tests, to establish the most appropriate diagnosis and treatment.
- Ability to measure, interpret and treat refractive and binocular errors.
- To know the sensory and oculomotor mechanisms of binocular vision.
- To know the principles and to have the skills to measure, interpret, and treat accommodative and binocular vision abnormalities.
- Ability to prescribe, control and monitor optical corrections.
- To acquire the ability to examine, to diagnose and to treat visual abnormalities with special emphasis on differential diagnosis.
- To acquire the clinical skills necessary for the examination and treatment of patients.
- To know the nature and organization of the different types of clinical care.



- To know the different protocols applied to patients.
- To know and to apply visual screening techniques applied to different populations.
- To know and to apply new technologies in the field of optometric clinic.
- Ability to act as a primary visual care agent.

LEARNING OUTCOMES

- Interpreting the results of visual tests, and obtaining clinical trial to establish the diagnosis and appropriate treatment.
- Ability to communicate information, ideas, problems and solutions to an audience both specialist and non specialist in language committed to gender equality
- Ability to prescribe, control and monitoring of optical corrections.
- Knowledge of the differences in refractive treatment and diagnosis of pediatric patients.
- Ability to examine, diagnose and treat visual abnormalities with emphasis on differential diagnosis
- Managing the different protocols applied to pediatric patients
- Knowledge and application of visual screening techniques.
- Ability to act as a visual primary care in the pediatric patient

DESCRIPTION OF CONTENTS

1. THE VISUAL SYSTEM OF THE CHILDREN

Item 1. The visual and psychomotor development in children.

Item 2. Eye health in children. Prevalence of eye diseases in the pediatric population.

2. VISUAL SYSTEM EFFICIENCY. VISUAL SYSTEM ANALYSIS OPTOMETRIC IN CHILD.

Item 3. Visual examination adapted to the child.

Item 4. Visual acuity in children. Measurement and control.

Item 5. Refraction in children.

Item 6. Oculomotor evaluation.

Item 7. Binocular vision.

Item 8. Accommodation.

**3. Visual information processing**

9. Visual perception

4. DIAGNOSIS, TREATMENT AND PREVENTION.

Item 10. Diagnosis and treatment in children.

Item 11. The information and interdisciplinary work.

Item 12. Notes on visual ergonomics and hygiene.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Tutorials	7,50	100
Laboratory practices	7,50	100
Attendance at events and external activities	2,00	0
Development of group work	9,00	0
Development of individual work	9,00	0
Study and independent work	20,00	0
Readings supplementary material	5,00	0
Preparation of evaluation activities	5,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	5,00	0
Resolution of case studies	2,50	0
TOTAL	112,50	

TEACHING METHODOLOGY

1. Lectures: on-campus classes, which taught the theoretical content of the material. Be enhanced using visual methodology that more clearly exemplify the theoretical and examples to develop.

2. Small Group Theory sessions: sessions are dedicated to student work in smaller groups, with proposals of real case studies to be analyzed and studied by the group. In addition to the basic theoretical concepts of matter, will develop practical exercises of the theoretical (problem based learning). Also reinforce theoretical concepts through the study of scientific articles of interest directly related to the subject.

Interrelationship be sought through group oral presentations in the classroom, under the supervision of the teacher.



3. Individual works protected: are jobs that are assigned to each student, allowing you to deepen individually in a specific subject. While the teacher can keep track of work individually.

4. Laboratory practical classes: in which in a practical manner theoretical concepts developed in various fields, including screening in schools, revisions to children or adolescents in clinical settings, etc.

EVALUATION

A) Written evaluation (60%), by means of theoretical questions that allow verifying the assimilation of theoretical foundations of the matter and theoretical-practical questions where the capacity of the student is evaluated to carry out real applications of the studied techniques and models. The critical capacity of the student will always be evaluated, as well as the correctness of the argumentation and proposed justifications. It may consist of a series of multiple-choice questions and/or short questions.

B) Continuous evaluation in the theoretical classes and in Seminars (20%), established on the basis of different indicators, such as the assignment of personalized works and the development of clinical questions or cases, interactively in the classroom. Attendance at the seminars is compulsory for all students.

There will also be group/individual work that will be scored.

C) Evaluation of the practical part of the subject (20%), by means of the practices carried out in real field (screening's schools, Optometry Clinic, etc), will allow to analyze the evolution of the skills of the student; therefore the attendance to these practices will be obligatory for all the students. There are two sessions, each one punctuates up to 1 point.

The grade required to pass the course will be 50%. It is also a basic requirement to have a minimum score of half the points in each of the three sections (written evaluation, seminars and practices).

The person who cannot attend (for justified reasons) at least 5 seminars must inform the teacher at the beginning of the term in order to be eligible for alternative seminars otherwise, you will not be able to choose to pass the subject.

REFERENCES

Basic

- Referencia b1: Montés Micó R. optometría: Aspectos avanzados y consideraciones Especiales. Elsevier. 2011: ISBN: 978-84-8086-890-7
- Referencia b2: Rosenfield M. Logan N. Optometry. Science, Techniques and clinical Management. 2ªedition
- Referencia b3: Grosvenor T. primary Care optometry. Butterworth-Heinemann. 5ª edition (2006)
- Referencia b4: Montés Micó R. Optometría. Principios básicos y aplicación clínica. 2011. Elsevier ISBN: 978-84-8086-822-8



Referencia b5 Ferré J. Aribau, E. (2002): El desarrollo neurofuncional del niño y sus trastornos, Barcelona, Lebón

10.2 Referencias Complementarias

Referencia C1: Optometría Pediátrica. Xàtiva, Ulleye (2004).

Referencia c2: Benjamin W.J.: Borish's Clinical Refraction. Missouri, Butterworth Heinemann. (2006)

Referencia c3: Buckingham T. Visual Procedures in childhood. Oxford. 1993

Referencia c4: Press, L.J. Moore, B. D. (1993): Clinical Pediatric, Butterworth-Heinemann.

Referencia c5: Scheiman MM, Wick B. (1996): Tratamiento clínico de la visión binocular: disfunciones heterofóricas, acomodativas y oculomotoras. Madrid, Lippincott-Ciagami.

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

In accordance with the new adjustments to the teaching of official UVEG degrees for the start of the second semester of the 2020-21 academic year, and which is included in the resolution of the Rector of the University of Valencia, of January 28, 20201 ,

<https://links.uv.es/8kXO6vG> we add this generic addendum in the Teaching Guides of the second semester subjects:

TEACHING METHODOLOGY:

During the month of February 2021, the teaching of theories and seminars-supervised works, go to synchronous videoconference modality given at the time set by the subject and the group.

As of March 1, the teaching modality indicated in the Teaching Guide and in the teaching modalities approved in the Academic Degree Commissions of the months of July 2020 and 11 2020, respectively, will be followed, unless the health authorities and Rectorate

indicate a new reduction in presence, in this case it would return to the synchronous videoconference mode.