COURSE DATA

Data Subject	
Code	34302
Name	Paediatric optometry
Cycle	Grade
ECTS Credits	4.5
Academic year	2021 - 2022

Study (s)

Degree	Center	Acad. year	Period
1207 - Degree in Optics and Optometry	Faculty of Physics	3	First 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, thepediatric patient has a number of features that make it different from adult patient and logically have a great importance in exploring these patients, so inthis course will explain how to scan a patient optometric according to thepediatric 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,

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

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 (RD 1393/2007) // NO CONTENT (RD 822/2021)

- Understand the appearance and evolution of visual disorders and the mechanisms involved.

- Differentiate whether or not there is an associated pathology in order to refer to the appropriate health specialist if necessary.

- Be able to carry out visual examinations on children, and adapt examination procedures according to the age subgroup to which the child belongs.

- Detect functional and/or refractive alterations and know how to discriminate whether or not they correspond to the child's stage of visual development. Know the treatments to be applied in each case.

- Understand the semiology of functional and/or refractive problems in children.

- Know the communicative particularities of each paediatric subgroup and know how to extract clinically useful information according to the type of paediatric 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 assessment (60%), by means of theoretical questions to check the assimilation of the theoretical foundations of the subject and theoretical-practical questions where the student's ability to carry out real applications of the techniques and models studied is assessed. This written test will have two parts, one of short questions and the other of multiple-choice questions. The multiple-choice part will subtract 1 correct question for every (n-1) incorrect answer options.

B) Continuous assessment in theory classes and seminars (20%), established on the basis of different indicators: i) assignment of group and/or individual work (scoring) and ii) development of questions or clinical cases, interactively in the classroom (scoring). The dates for submitting the assignments will be indicated sufficiently in advance. Attendance at the seminars is compulsory. Students must attend at least 5 seminars in order to pass the course and hand in the required assignments. Students who have not attended a minimum of 5 seminars will be entitled to an exam of the content studied in the seminars.

C) Evaluation of the practical part of the course (20%), by means of practical work carried out in the real field (schools, Optometry Clinic, Optometry offices, etc.), which will allow students to analyse the evolution of their skills. Attendance at these practical sessions is compulsory. There are two sessions, each one scoring up to 1 point. After the completion of each practical, a follow-up form must be handed in to analyse the evolution of the student's skills. This form will also include the difficulties the student has had, the resolution mechanisms used and the learning concept achieved.

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

REFERENCES

Basic

- Referencia b1: Grosvenor, T. (2007). Primary care optometry / Theodore Grosvenor (5th ed.). Elsevier Butterworth-Heinemann.
  Referencia b2: Press, L. J., & Moore, B. D. (1993). Clinical pediatric optometry / Leonard J. Press, Bruce D. Moore. Butterworth-Heinemann.
  Referencia b3: López Alemany, A. (2005). Optometría pediátrica / Antonio López Alemany, editor.

Ulleye.
Referencia b4: Montés Micó R. Optometría. Principios básicos y aplicación clínica. 2011. Elsevier ISBN: 978-84-8086-822-8
Referencia b5: Khanna, R. C., Rao, G. N., & Marmamula, S. (2019). Innovative Approaches in the Delivery of Primary and Secondary Eye Care. Springer International Publishing AG.
Referencia b6: Montés Micó R. Optometría: Aspectos avanzados y consideraciones Especiales. Elsevier. 2011: ISBN: 978-84-8086-890-7
Referencia b7: Scheiman, M. M., & Wick, B. (1996). Tratamiento clínico de la visión binocular: disfunciones heterofóricas, acomodativas y oculomotoras / Mitchell Scheiman, Bruce Wick. Lippincott.

Additional

- Referencia c1:
Buckingham, T. (1993). Visual problems in childhood / Edited by Terry Buckingham. Butterworth-Heinemann.
Referencia c2:
Zihl, J., & Dutton, G. N. (2014). Cerebral Visual Impairment in Children: Visuoperceptive and Visuocognitive Disorders (2015th ed.). Springer Wien. https://doi.org/10.1007/978-3-7091-1815-3
Referencia c3: Scheiman, M., Wick, B., & Steinman, B. (2020). Clinical management of binocular vision: heterophoric, accommodative, and eye movement disorders / Mitchell Scheiman (O.D., Ph.D., Professor, Dean of Research, Director of Graduate Programs, Pennsylvania College of Optometry at Salus University, Elkins Park, Pennsylvania), Bruce Wick (Professor Emeritus, University of Houston, College of Optometry, Houston, Texas); illustrator Barbara Steinman (O.D., Ph.D) (Fifth edition). Wolters Kluwer Health.

ADDENDUM COVID-19

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

According to the new adjustments of the teaching of the official degrees of the UVEG for the beginning of the second semester of the academic year 2020-21, and that is included in the resolution of the Rector of the University of Valencia, of 28 January 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 tutored seminars-workshops will change to a synchronous videoconference mode, taught in the timetable set by the subject and the group.

From 1 March, the teaching modality indicated in the Teaching Guide and in the teaching modalities approved by the Degree Academic Committees of July 2020 and november 2020, respectively, will be followed, unless the health authorities and the Rectorate indicate a further reduction in attendance, in which case the synchronous videoconference modality will be used again.