26783 - Pediatrics and Maternal and Child Medicine

Información del Plan Docente

Academic Year	2018/19
Subject	26783 - Pediatrics and Maternal and Child Medicine
Faculty / School	104 - Facultad de Medicina
Degree	304 - Degree in Medicine
ECTS	8.0
Year	5
Semester	First semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Aims of the course

The general aim of the subject is to provide the future doctor with a general knowledge with practical orientation of the main aspects related to nutrition, growth and development and the main diseases of childhood, from the newborn to the adolescent, many of the Which may have an impact on adulthood and the family environment.
The specific aims would be:
- Knowing to make a complete anamnesis, centered in the reason of consultation and age of the patient.
- To acquire skills in the planning of healthy child feeding in the different stages of childhood, as well as in the various pathological situations.
- To be able to guide the diagnosis and treatment of the most common pathological processes that affect the child, from the newborn to adolescence, using correctly the sources of information and available means.
- To be able to provide adequate preventive guidance at all times for the development and promotion of the child's health, from the newborn to the adolescent.
- To be able to establish an adequate doctor-patient relationship and act within the ethics and legality in force, adapting to the needs of the child and his family, both in health situations and illness.
- To know how to protect the dignity, privacy and confidentiality of the patient and his / her family.
- To promote the habit of study and instill interest in research.

1.2.Context and importance of this course in the degree

Pediatrics is a medical specialty born of the scientific and practical need to know the medicine of the human species during its stage of growth and development, both physical and intellectual and personal, to adulthood. The biological, psychological and social characteristics of the child justify the inclusion of a general basic knowledge about them in the formation of the future doctor. This subject also allows to obtain the training of the student to carry out the follow-up of the pediatric patient, as much in the scope of the primary attention as in the hospital level.

1.3.Recommendations to take this course

There is no strict incompatibility with other modules and subjects that prevent this course in the 9th semester of the Degree in Medicine. In spite of this, it is recommended to have successfully passed the content of modules and subjects taken in previous semesters.

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2.Learning goals

2.1.Competences

CB1 - Students should demonstrate to possess and to understand knowledge in an area of study that starts from the base of the general secondary education, and is usually found to a level that, although it relies on advanced textbooks, also includes some aspects Which involve knowledge from the vanguard of their field of study.
CB2 - Students can apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and problem solving within their area of study.
CB3 - Students should have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.
CB4 - Students can transmit information, ideas, problems and solutions to a specialized and non-specialized audience.
CB5 - Students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.
SPECIFIC:
CE53 - To know the morphofunctional characteristics of the newborn, the child and the adolescent. Increase. Premature newborn.
CE54 - To recognize, diagnose and guide the management of the main pediatric pathologies, child nutrition, diagnosis and genetic counseling, cognitive, emotional and psychosocial development in childhood and adolescence.

2.2.Learning goals

The student who has passed the subject must:

1.- Have the fundamental knowledge about the growth, development and normal maturation of the child, as well as the different
organs, devices and systems of your body, from the neonatal period to the end of adolescence.
2.- To have the basic knowledge about feeding in the different stages of the pediatric age.
3.- Knowing to perform an anamnesis and complete physical examination in the different pediatric ages, interpreting properly its
meaning.
4.- Know how to guide the diagnosis, treatment and prevention of the main pediatric pathologies.
5.- Being able to choose the appropriate complementary tests, depending on their usefulness and risk, to arrive at a diagnosis.
6.- To be able to establish an initial therapeutic plan, focused on the needs of the patient and their family and social environment.
7.- Understand the basis of genetic counseling in the main hereditary pediatric diseases.

2.3.Importance of learning goals

The acquisition of knowledge, skills and competences in this subject enables the future doctor to attend pediatric patients, extending the scope of their competence to the field of public health.

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

The student must demonstrate that he/she has achieved the expected learning outcomes through the following assessment activities:
The score obtained by the student will be quantified in a scale of 0 (zero) to 10 (ten), with a decimal, and shall be

accompanied by its qualitative equivalent (Article 5 of R.D. 1125/2003):
From 0 to 4.9 -> Failed
From 5 to 6,9 -> Approved
From 7 to 8,9 -> Notable
From 9 to 10 -> Outstanding
To overcome the evaluation will be necessary:
- Approve independently the theoretical teaching given in large groups and the face-to-face in small groups on the other, the final qualification being the result of the sum of both.
- Conducting the seminars, clinical case workshops and practices/simulation will be mandatory and essential for the final evaluation.
- Assessment of theoretical teaching: Maximum score: 7 (seven) (70% of final score)
- It will be a test type test with 70 (seventy) questions each with a statement/question and 5 (five) possible answers, of which only one is correct. Unsuccessful questions will not be negative. The score obtained will be between 0 (zero) and 7 (seven), resulting from dividing by 10 (ten) the number of correct questions.
- The questions will be related to the content of the theoretical program and the seminars, and will evaluate the learning outcomes
- The theoretical part is surpassed with a minimum of 49 (forty-nine) correct questions (70% of the total). Obtaining 70 (seventy) correct questions will correspond to the maximum score of 7 (seven) points in this section.
- The qualification of this theoretical part, if it has exceeded the required minimum, will be kept for all the calls of the same academic year.
- It will be necessary to surpass the theoretical part to be able to be evaluated of the practical part.
- Evaluation of clinical case workshops and simulation practices (compulsory activities): Maximum score: 3 (three) (30% of the final grade).
- They will be scored from 0 (zero) to 3 (three). This part of the subject will be surpassed reaching a minimum of 1.5 points (50% of the total). Obtaining 3 (three) points will correspond to the maximum qualification in this section. These 3 (three) points will be distributed as follows:
● 0-2 points: Resolution of a clinical case answering in writing to 5 (five) short questions about it. It will be done together with the theoretical test.
● 0-1 point: Evaluation of the activity performed, which includes: 1) the oral presentation of the directed work (contents related to the clinical case workshops) and 2) the simulation workshops.
- The qualification of the theoretical part, will be kept for all the calls of the same academic year, provided that the minimum required has been exceeded.
Dates of global assessments:
First call: January
Second Call: September

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The learning process that has been designed for this subject is based on the following:
It comprises the following activities corresponding to 8 ECTS (200 hours):
- Non-face-to-face teaching: (55%): 4,4 ECTS (110 hours):
Based on the individual work of the student and that should include the consultation and study of the different bibliographic sources recommended.
- Classroom teaching (45%): 3,6 ECTS (90 hours):
· Large groups:
+ Classes: Master class: 45 hours (1,80 ECTS): Theoretical classes exposition, assisted with available audiovisual means (whiteboard, computer, projector, etc.).
· Small groups: 44 hours (1,60 ECTS)
+ Seminars: 14 hours (0.5 ECTS). Teaching based on content / selected clinical topics and not included in the theoretical program (lectures) of the subject. The student's participation and responses to the questions raised (orally) by the teacher in the classroom are assessed. Methodologies will be used to encourage student participation. Its contents include revisions and updates of groups of specific pathologies.
+ Clinical Case Workshops: 10 hours (0,4 ECTS). In-person meetings of the teacher and small groups of students

directed to the teaching of clinical cases based on the learning of abilities in the accomplishment of specific clinical explorations, the collection of pathological data, their interpretation and the orientation towards a correct diagnosis. They will be formulated based on previous knowledge of semiology. Logical therapeutic guidelines will be considered according to the diagnoses formulated.
+ Practical/Simulation: 9 hours (0,36 ECTS). Performing clinical skills practices at the Simulation Center. Computer simulators will be used in which each student, individually, should be able to diagnose diseases from data provided by the teacher.
+ Directed and/or revision work: 5 hours (0,2 ECTS). Performing individual work and/or group work. Subsequent public presentation of the works and/or reviews made.
+ Tutorials: 5 hours (0,2 ECTS). Personal interview and/or telematics with the teacher/tutor (academic orientation, information and orientation of competences to be acquired).

4.2.Learning tasks

- Theoretical classes (large group)
- Practical classes: Seminars, clinical cases and simulation workshops (small group)

4.3.Syllabus

The program offered to the student to help him/her to achieve the expected results includes the following activities...

The theoretical program of the subject is divided into 6 thematic blocks:

I. Basic Concepts in Pediatrics.

II. Child nutrition and its disorders.

III. Preventive Pediatrics.

IV. Neonatology and perinatal pathology.

V. Pediatric Diseases (by systems and organs).

VI. Infectious diseases in childhood.

THEORY OF PEDIATRICS (LECTURES)

ECTS theoretical: 1.80 (45 hours)

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I. BASICS IN PEDIATRICS

Lesson 1. Concept of Pediatrics and Child Care. Periods of childhood.

Lesson 2. Growth and development.

II. CHILD NUTRITION AND DISORDERS

Lesson 3. Nutrition. Nutritional requirements.

Lesson 4. Breastfeeding. Formula feeding.

Lesson 5. Complementary feeding. Intolerance and food allergy.

Lesson 6. Eating disorders. Obesity and anorexia nervosa. (2 classes)

Lesson 7. Current situations of malnutrition. Rickets. Nutritional anemia. (2 classes)

III. PREVENTIVE PEDIATRICS

Lesson 8. Calendar of vaccinations.

Lesson 9. Accidents. Intoxications. Sudden Infant Death Syndrome.

IV. PERINATAL PATHOLOGY AND NEONATOLOGY

Lesson 10. Embryofetopathies.

Lesson 11. Chromosomal abnormalities. Main paediatric dysmorphic syndromes.

Lesson 12. Inborn errors of metabolism. Newborn screening.

Lesson 13. Normal newborn.

Lesson 14. Adaptive disorders and injuries of the newborn.

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Lesson 15. Metabolic disorders, hemorrhagic syndromes and respiratory syndromes of the newborn.

Lesson 16. Perinatal asphyxia.

Lesson 17. Premature newborn.

Lesson 18. Neonatal infections.

V. PEDIATRIC DISEASES (BY SYSTEMS AND ORGANS)

Lesson 19. Acute diarrhea. Dehydration.

Lesson 20. Differential diagnosis of vomiting.

Lesson 21. Differential diagnosis of abdominal pain.

Lesson 22. Celiac disease.

Lesson 23. Cystic fibrosis.

Lesson 24. Upper respiratory tract infections.

Lesson 25. Lower respiratory tract infections.

Lesson 26. Asthma.

Lesson 27. Congenital Heart Disease.

Lesson 28. Urinary tract infection.

Lesson 29. Nephrotic syndrome. Acute poststreptococciccal glomerulonephritis.

Lesson 30. Short stature. Growth hormone deficiency.

Lesson 31. Pathology of the thyroid gland.

Lesson 32. Abnormalities of sexual differentiation.

Lesson 33. Pathology of puberty.

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Lesson 34. Diabetes mellitus.

Lesson 35. Intellectual disability. Cerebral palsy.

Lesson 36. Seizures and epilepsy.

Lesson 37. Hypotonia. Peripheral neuropathies.

Lesson 38. Cancer in childhood. Acute lymphoblastic leukemia.

Lesson 39. Wilms tumor. Neuroblastoma.

VI. INFECTIOUS DISEASES

Lesson 40. Differential diagnosis of exanthematous diseases.

Lesson 41. Bacterial meningitis. CNS viral infections.

Lesson 42. Tuberculosis.

Lesson 43. Immunodeficiencies.

- SEMINARS (14 hours):

1 - Anamnesis and physical examination. Anthropometric tables and charts.

2 - Nutritional assessment.

3 - Breastfeeding.

4 - Family pedigree and types of inheritance.

5 - Dosage of drugs in Pediatrics.

6 - Assistance to normal newborn.

7 - Newborn screening.

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8 - Evaluation of the dysmorphic child.

9 - Haematuria.

10 - Congenital adrenogenital syndrome.

11 - Resucitation in children.

12 - Lymphadenopathies.

13 - Febrile syndrome.

14 - Imported diseases

- CLINICAL CASES WORKSHOPS (10 hours):

1. Obesity with metabolic risk.

2. Failure to thrive.

3. Intoxications.

4. Newborn with respiratory distress.

5. Newborn with jaundice.

6. Vomiting.

7. Edema.

8. Short stature.

9. Hyperglycaemia.

10. Hypotonia.

- PRACTICE WITH SIMULATION (9 hours):

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Topics:

1. Ventilation. Intubation. Life support.

2. Pulmonary and cardiac auscultation.

3. Lumbar puncture.

4A.Simulated clinical case:

- Cough and difficulty breathing.

4b. Simulated clinical case:

- Child with fever.

4c. Simulated clinical case.

- The child who does not eat.

5. Clinical cases interactive.

- Sepsis / Meningitis.

- Asthma.

Duration of the internship simulation:

Topics 1 and 5: 2 hours each

Topics 2 and 3: 1 hour each

Topic 4: 3 hours (1 hour each)

4.4.Course planning and calendar

Calendar of face-to-face sessions and presentation of works
DATES AND SCHEDULES: The theoretical classes of large groups (master classes) begin (in all groups at the same time) on Monday, September 17, 2018 and end on Friday, January 11, 2019 and will be taught from 8:00 to 9: 00 h from

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Monday to Friday. Small group teaching activities start the week of September 24, 2018 consecutively for 12 weeks, and are taught to the 12 groups, with 25 students each. The duration of the teaching activity to small groups is 2.45 hours/day. The seminars last between 1 and 2 hours, depending on the content, and the workshops of clinical cases between 2 and 3 hours.

The teaching activities of the subject will be taught in the time slot from 8:00 a.m. to 3:00 p.m. From Monday to Friday, in the first semester of 5th grade (9th semester). The teaching activity will be divided into: Teaching face-to-face (45%): 3,6 ECTS (90 hours) and non-face-to-face teaching (55%): 4,4 ECTS (110 hours). Classroom teaching is given to large groups (lectures) and to small groups (seminars, clinical case workshops, internships, guided work and tutorials). The key dates of the subject will be set within the academic calendar established by the Center for each academic year. The examinations for the academic year will be the ones corresponding to February and September.
All activities, both with large groups (lectures) and with small groups (seminars, clinical case workshops, internships, guided work and tutorials) will be carried out according to the annual transversal organization chart established by the Center, taking into account the following considerations:
The one-hour master classes will be distributed throughout the academic weeks corresponding to the 9th semester of the academic year.
The seminars will be developed in the same time slot as the master classes, being able to interleave with them to complement their content.
Clinical case workshops and practices will be developed in the time slot intended for teaching activity with small groups. Once the "clinical cases" activity has been completed, the lists will be published (at the end of November 2018) with the distribution of students by groups for the preparation and subsequent oral presentation of the case assigned to each group. The oral presentation is scheduled to take place in the first half of January 2019.
The practices will be carried out mainly using techniques and simulation material applied to Medicine. They will consist of the presentation by the teacher of cases and simulated clinical situations that the student must solve in a satisfactory way as if a real case or situation were involved. Likewise, the acquisition of clinical skills in diagnostic and therapeutic procedures in pediatrics will be promoted.
The tutorials will be developed during the 9th semester of the Degree.
The evaluation of the student will be done at the end of the teaching activities of the course. The evaluation activities will be carried out in the time slot assigned to the subject during the 9th semester (January), with a second call in September of the same academic year.
The dates foreseen for the evaluations of the Subject in the Academic Year 2018-2019 will be the following:
- January 2019
- September 2019

4.5.Bibliography and recommended resources

http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a