COURSE DATA

DATA SUBJECT

Code: 34484
Name: Diseases of the nervous system
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1204 - Degree in Medicine	Facultat de Medicina i Odontologia	5	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1204 - Degree in Medicine	Human clinical training III	COMPULSORY

COORDINATION

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SUMMARY

GENERAL FEATURES

"Pathology of the nervous system" is a single subject taught jointly by the Departments of Medicine (Neurology) and Surgery (Neurosurgery).

The distribution of contents and teaching load is: 60% Neurology and 40% Neurosurgery.

OBJECTIVES

The general objective is to train professionals with sufficient theoretical and practical knowledge, attitudes and skills that enable them to recognize and manage the most frequent diseases of the nervous system that the general practitioner has to face in daily clinical practice.

- Know the most relevant and frequent diseases of the nervous system, their importance and prevalence in the population.

- Understand its pathogenic and pathophysiological mechanisms.

- Guide a syndromic diagnosis and make a differential diagnosis by analyzing the information of the patient and her environment.

- Know the diagnostic techniques used in the management of these patients, the bases on which they are based, their usefulness, indications and limitations.

- Know the main therapeutic options available for its medical or surgical treatment and its prevention, as well as the basis on which its application is based.

- Evaluate the prognosis and learn to transmit this information to the patient and their family.

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 enrolment restrictions for other subjects of the curriculum.

COMPETENCES / LEARNING OUTCOMES

1204 - Degree in Medicine

Acknowledge diversity and multiculturality.

Acquire properclinical experience in hospitals, health care centres and other health institutions, under supervision, as well as basic knowledge of clinical management focused on the patient and the correct use of tests, medicines and other resources available in the health care system.

Capacity for communicating with professional circles from other domains.

Consideration of ethics as a fundamental value in the professional practise.

Criticism and self-criticism skills.

Establish the diagnosis, prognosis and treatment, applying principles based on the bestinformation available and on conditions of clinical safety.

Have the capacity to make an initial diagnosis and establish a reasonable strategy of diagnosis.

Indicate the most accurate therapy in acute and chronic processes prevailing, as well as for terminally ill patients.

Know how to use IT in clinical, therapeutic and preventive activities, and those of research.

Know how to use the sources of clinical and biomedical information available, and value them critically in order to obtain, organise, interpret and communicate scientific and sanitary information.

Knows how to evaluate modifications in clinical parameters at different ages.

Knows how to perform a complete anamnesis, focused on the patient and orientated to various pathologies, interpreting its meaning.

Obtain and elaborate a clinical history withrelevant information.

Perform a physical examination and a mental health assessment.

Plan and propose appropriate preventive measures for each clinical situation.

Proper organisation and planning of the workload and timing in professional activities.

Recognises, diagnoses and guides the management of the main pathologies affecting the central and peripheral nervous systems.

Team-working skills and engaging with other people in the same line of work or different.

Understand the importance and the limitations of scientific thinking in the study, prevention and management of diseases.

Working capacity to function in an international context.

DESCRIPTION OF CONTENTS

1. LECTURES

The syllabus will contain twenty-three topics (14 Neurology and 9 Neurosurgery). Each lecture will last 60 minutes.

NEUROLOGY TOPICS
1. Headaches and craniofacial pain
2. Cerebral vascular diseases.
3. Epilepsy.
4. Consciousness disorders: sleep disorders. Coma. Brain death.
5. Infections of the Nervous System.
6. Metabolic encephalopathies due to toxic, deficiency, and autoimmune origin.
7. Multiple sclerosis and other demyelinating diseases.
8. Diseases that cause movement disorders (Parkinson's disease and other extrapyramidal diseases).
9. Dizziness. Central and peripheral vertigo. Cerebellar ataxia.
10. Cognitive impairment and Dementia.
11. Non-surgical acute and chronic myelopathies. Motoneuron diseases.

12. Diseases of the peripheral nervous system I: Neuropathies.
13. Diseases of the peripheral nervous system II: Muscular dystrophies and other muscular diseases.
14. Diseases of the peripheral nervous system III: Myasthenia gravis. Cranial nerve disorders. Autonomic nervous system.

NEUROSURGERY TOPICS
15. Intracranial pressure and cerebral circulation. Intracranial hypertension. Benign intracranial hypertension. Normal pressure hydrocephalus.
16. Paediatric Neurosurgery.
17. Head injuries I.
18. Head injuries II.
19. Brain tumours I
20. Brain tumours II.
21. Neurosurgical cerebrovascular disorders.
22. Degenerative, traumatic and tumoral spine and spinal cord disorders: spinal cord injuries. Spinal cord compression syndrome. Syringomyelia. Peripheral nerves.
23. Functional neurosurgery.

2. SEMINARS AND WORKSHOPS

Seminars: Each will last 1 hour.

NEUROLOGY SEMINARS
1. Anamnesis and exploration. The neurological clinical method.
2. Assessment of the patient with stroke.
3. Assessment of the patient with headache.
4. Assessment of the patient with epilepsy, use of video EEG.
5. Assessment of the patient with cognitive impairment.
6. Assessment of the patient with movement disorders.
7. Assessment of the patient with neuromuscular pathology.
8. Optional seminar: introduction to research.

NEUROSURGERY SEMINARS
9. Intracranial pressure. Hydrocephalus.
10. Paediatric Neurosurgery.
11. Head injuries.
12. Brain tumours.
13. Neurosurgical vascular pathology.
14. Syndromic symptoms of the spine.
15. Functional Neurosurgery

3. CLINICAL CASES

NEUROLOGY
The clinical cases will be taught in the seminars and clinical practices.

NEUROSURGERY
The neurosurgical clinical cases will be seen during the clinical practices in each Hospital.

4. CLINICAL PRACTICES

Objectives:
Bringing the student closer to admitted patients' daily Hospital neurological/neurosurgical diseases. Know the neurological/neurosurgical diseases attended in the outpatient clinics.

They will be supervised in the different Neurology and Neurosurgery hospital units: wards, outpatient clinics, technical laboratories, and operating rooms.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	26,00
Seminars	26,00
Laboratory	0,00
In-class tutorials	0,00
Clinical practice	23,00
Total hours	**75,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	55,00
Preparation of lessons	0,00
Preparation for assessment activities	10,00
Resolution of case studies	10,00
Preparation of supplementary reports	0,00
Preparation of the internship report and evaluation of the internship	0,00
Total hours	**75,00**

TEACHING METHODOLOGY

The teaching methodology is based on the development of several types of activities: a) theoretical content, b) practical content (seminars and clinical cases), c) non-face-to-face teaching, and d) evaluation, which includes taking face-to-face exams and evaluating the activities carried out.

In the lectures with theoretical content, a global vision of each topic will be exposed, with the appropriate audiovisual support, which includes the general concepts, their basic ideas, and the most relevant aspects related to the diagnosis, prognostic evaluation, treatment, and prevention of the nervous system diseases.

In the classes with practical content, the decision processes involved in the differential diagnosis and the treatment of patients will be addressed, underlining the relevant role of the anamnesis and physical examination and the appropriate choice of complementary exminations and the different therapeutic options. In relation to these complementary examinations, two fundamental aspects are highlighted. On the one hand, the information they can provide and their limitations, and on the other, the indications for its realization. For this, data and results of authentic explorations will be available to discuss the most relevant aspects of them. This discussion will take place in seminars and clinical case presentation sessions.

The gender perspective, the respect for diversity, and the sustainable development goals (SDGs) will be incorporated into teaching whenever possible.

EVALUATION

Theoretical teaching evaluation (50% of the overall assessment)
a) Written exam on all the contents of the 23 theoretical topics taught during the academic course. The exam will consist of "test" type questions on the subject's agenda (each question will have four answers, of which only one will be valid). Correct questions will be worth 1 point. One point or fraction will be subtracted for every three incorrect answers. Blank answers do not score.
b) The contents of the questions will be in proportion to the subject taught (60% Neurology, 40% Neurosurgery), all of this supported by the reference books.

Practical teaching evaluation (50% of the overall assessment)
c) Written exam with multiple choice questions related to the content of the seminars and clinical cases.
d) Daily control of attendance at clinical practices and seminars at the affiliated Hospital. **Attendance at practices and seminars will be mandatory**. Failure to attend more than 20% of the seminars, clinical practices, or both will result in the impossibility of passing the course. The evaluation will be "apt" or "not apt" according to the result of the attendance control and the attitude shown. The teaching staff may demand complementary activities from students with absences, even if they are justified.

The written exam will be the same for all the course groups.

Final grade of the subject: (Theory + Practice) / 2. Passed with 5 or more. The subject is passed or failed as a whole.

It is a requirement to access the advance call for this subject that the student has completed all their practices.

Students are encouraged to fulfil the evaluation surveys for all undergraduate students' teaching staff

REFERENCES

BÁSICA

NEUROLOGÍA LIBROS GENERALES DE MEDICINA INTERNA
- Harrison: Principios de Medicina Interna. McGraw-Hill
- Farreras: Medicina Interna. Hartcourt

NEUROCIRUGÍA
- Greenberg M.S. Handbook of Neurosurgery. Editorial Thieme. 7ª ed. 2010. Inglés
- Greenberg M.S. Manual de Neurocirugía. Editorial Journal, 2013. 2ª edición de la 7ª edición en inglés (ejemplares disponibles en la biblioteca).
- Bartomeus Jene, F. Nociones básicas de Neurocirugía. Publicaciones Permanyer. Laboratorios Esteve. 2ª edición 2011.
- Izquierdo Rojo JM, Martin Láez R, Punto Rafael JI. Neurocirugía básica para residentes. www.senec.org (página web de la Sociedad Española de Neurocirugía).

RECURSOS e-Salut:
- ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]
- Acces Medicina [https://uv-es.libguides.com/Access_Medicina]
- Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana]

COMPLEMENTARIA

NEUROLOGÍA LIBROS DE TEXTO DE NEUROLOGÍA (para consulta)
- Adams y Victor: Principios de Neurología. McGraw-Hill.11ª edición
- Bradley W: Neurología Clínica. Elsevier. 5ª edición
- Misulis E, Head Thomas. Netter Neurología Esencial. Elsevier Masson
- Rohkaman: Neurología texto y atlas. Editorial Panamericana, 3ª edición

NEUROCIRUGÍA LIBROS DE CONSULTA
- Greenberg's Handbook of Neurosurgery. Tenth Edition. Editorial Thieme. 2023. Inglés.
- Neurocirugía. Fundamentos. Ellenbogen R, Abdulrauf S y Sekhar L. Editorial Amolca. 2016 . Español.
- Fundamentals of Neurosurgery: A Guide for Clinicians and Medical Students. Joaquim AF, Ghizoni E, Tedesshi H y Ferrerira MAT. Editorial Springer-Verlag. 2019. Inglés.
- The essential Neurosurgery companion. Gasco J. Editorial Thieme 2013. Inglés.
- Differential Diagnosis in Neurology and Neurosurgery. A clinician's pocket guide. Sotirios A. Tsementzis, M.D., Ph.D. Editorial Thieme. 2000. Inglés.
- Neurosurgery Rounds: Questions and Answers. Shaya MR, Gragnaniello C y Nader R. Editorial Thieme. 2018. Inglés.