Information about the subject

Degree: Bachelor of Science Degree in Medicine

Faculty: Faculty of Medicine and Health Sciences

Code: 340507 **Name:** Medicine and Surgery of the Nervous System

Credits: 9,00 **ECTS Year:** 5 **Semester:** 1/2

Module: Human Clinical Training

Subject Matter: Human Pathology **Type:** Compulsory

Field of knowledge: Health Science

Department: Surgical Specialities

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

Human Clinical Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Human pathology basis	6,00	General Pathology I	3,00	3/1
		General Pathology II: Analysis by Problems	3,00	3/2
Psychology	6,00	Medical Psychology and Psychopathology	6,00	3/2
Human Pathology	102,00	Clinical Allergology and Immunology	3,00	3/2
		Dermatology	6,00	5/1
		Endocrinology and Nutrition	6,00	5/2
		Haematology	3,00	3/2
		Infectious Diseases	3,00	3/2
		Medical Oncology and Radiotherapy	3,00	5/2
		Medicine and Surgery of the Cardiocirculatory System	9,00	4/2
		Medicine and Surgery of the Digestive System	6,00	4/1
		Medicine and Surgery of the Musculoskeletal System	9,00	4/2
		Medicine and Surgery of the Nephro-Urological System	6,00	5/1

Human Pathology	Medicine and Surgery of the Nervous System	9,00	5/2
	Medicine and Surgery of the Respiratory System	6,00	3/2
	Obstetrics and Gynaecology	9,00	4/2
	Ophthalmology	3,00	3/2
	Otorhinolaryngology	3,00	4/2
	Paediatrics	9,00	5/2
	Palliative Medicine	3,00	6/1
	Psychiatry	3,00	5/1
	Rheumatology	3,00	4/2

Recommended knowledge

With this subject it is intended that the Medicine student could achieve:
1. An updated knowledge of the etiology, mechanisms and symptoms of the most common nervous system diseases
2. To understand the importance of the data obtained during anamnesis and physical examination for the correct diagnostic orientation in Neurology and Neurosurgery
3. To be able to establish a differential diagnosis of neurological symptoms and signs
4. To suggest the appropriate complementary studies to apply in order to reach a correct diagnosis of the different neurological problems and to adquire the basic interpretation capacities for these examinations
5. To guide correctly the medical and surgical treatment of the most important and frequent diseases of the nervous system
6. To know the fundamental characteristics of some non-frequent but relevant neurological diseases, from their etiopathogenesis to their diagnosis and therapeutic availbale options.
7. To understand the importance of risk factor prevention and treatment

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1	Assistance to a gynecological surgical session.
R2	Know how to identify, through its color code, eye drops commonly used in ophthalmological clinic: myriatics, myotics, anesthetics, antibiotics, corticosteroids and fluorescein.
R3	Understand the importance of anamnesis data and physical examination for diagnostic guidance.
R4	Be able to establish a differential diagnosis of heart symptoms and signs.
R5	Correctly guide medical and surgical treatment of cardiovascular diseases.
R6	Know, witness and perform the process of anamnesis and physical examination in Cardiology and Angiology, both in patients in Consultation and not in Hospitalized
R7	Especially, witness and perform blood pressure intake, carotid and femoral arterial pulse palpation and cardiac auscultation. Also perform clinical exploratory maneuvers of assessment of integrity and / or involvement of the arterial, venous and peripheral lymphatic system.
R8	Clinical inspection of vascular patients and semiological interpretation thereof. Obtaining segmentary pressures of the members, ankle/arm index. Semiological and evolutionary value of it.
R9	Know and evaluate the importance of the main diagnostic methods used in pathology and cardiovascular to guide the indication and type of surgical technique (EcoDoppler, Angiography, AngioTac and angio-RNM, EMG, etc.)
R10	Being able to search for bibliographic information from different sources and knows how to analyze it in a critical spirit
R11	Know how vestibular functional exploration is performed, especially Dix-Hallpike maneuvers and particle replacement. Knowing how to guide a patient who suffers from vertigo
R12	Distinguish out-of-range results in a regular hemostase study and suggest possible causes of parameters. Quick, TTPA, PT and fibrinogen index.
R13	Know and master verbal and nonverbal communication with patients, family members, as well as teammates and professionals from other specialties.

R14	Know the different families of psychopharmaceuticals.
R15	Knowing the therapeutic uses and indications of the various psychopharmaceuticals
R16	Knowing and identifying nonverbal and verbal communication
R17	Know the basics of the doctor-patient relationship
R18	Being able to work as a team
R19	Maintaining a critical and tolerant attitude
R20	Being able to make an empathetic listening
R21	Properly perform a medical history
R22	Search for information in bibliographic sources and know how to analyze them.
R23	Knowing and understanding the etiopathogeneia and physiopathology of endocrinological diseases
R24	Acquire theoretical knowledge about clinical manifestations, treatment and prognosis of the most prevalent endocrinological diseases.
R25	Understanding the process of carrying out differential diagnosis
R26	To know the main pharmacological and non-pharmacological therapeutic means
R27	Indicate and interpret basic analysis related to renal function, hydroelectrolyte and acid-base balance: Urea, Creatinine, Ions (Na, K, Cl) and pH and bicarbonate
R28	Calculate the Glomerular Filtration by means of the estimated formulas and place the patient in the appropriate stage of the chronic renal disease according to this calculation.
R29	Know the fundamentals and principles of palliative care.
R30	To know and be able to define the situation of terminal illness.

R31	Knowing the basic tools in palliative care.
R32	Know the general principles of action for symptom control.
R33	Knowing the attention phases of the ill patient
R34	Knowing the anatomo-physiology of pain and modulation systems
R35	To know and distinguish the clinical and physiopathological differences between acute and chronic pain.
R36	To know the physiopathology of neuropathic pain.
R37	To know the general principles of pain management in palliative patients
R38	Knowing the specific therapeutic management of neuropathic pain
R39	To understand the mechanism of action and management of anti-inflammatory drugs and their side effects
R40	Know how to handle minor and major opioid drugs and their side effects.
R41	To know the different routes of administration of drugs in the treatment of pain and the equivalent doses.
R42	To know the specific interventionist techniques in the treatment of pain.
R43	Understanding the mechanism of action and management of antidepressants
R44	To know the mechanism of action and the handling of Anxiolytics and other coadjutant drugs.
R45	To detect, analyse and resolve ethical dilemmas in palliative activity.
R46	Knowing how to identify, evaluate and treat confusion in advanced or terminal illness
R47	Knowing how to identify, evaluate and treat anxiety disorder in advanced or terminal illness.

R48	Knowing how to identify, assess and treat depression in advanced or terminal illness
R49	To know how to manage the subcutaneous route for the administration of bolus drugs.
R50	Knowing the different types of oncological treatment, knowing how to differentiate between local and systemic treatments. To know the different types of radiotherapy and their indication, to know the most common doses of radiation in radical and palliative treatments.
R51	Updated knowledge of ethiology, mechanisms and symptoms of neurological diseases
R52	Understand the importance of anamnesis and physical examination data for diagnostic guidance in diseases of the nervous system.
R53	Be able to establish a differential diagnosis of neurological signs and symptoms.
R54	To learn about the different complementary explorations in Neurology and Neurosurgery with basic interpretation skills.
R55	To correctly guide the medical and surgical treatment of diseases of the Nervous System
R56	Understand the importance of the prevention of risk factors, being able to recognize and treat them.
R57	To know, witness and carry out the process of anamnesis and elaboration of clinical history directed to the pathology of the nervous system
R58	To witness and be able to carry out the neurological examination of a patient in a coma
R59	To witness and be able to perform the neurological examination of a patient with neuromuscular disease
R60	To learn about and witness the main complementary explorations in nervous system pathology
R61	To know and interpret neuroimaging explorations in nervous system pathology
R62	Recognize and treat urgent pathology in Allergology. Simulations of different allergological pathologies in situations of vital risk. Anaphylaxis and anaphylactic shock

Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB1	Students have demonstrated to possess and understand knowledge in a study area that starts from the base of the general secondary education, and is usually found at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study				x
CB2	Students know how to apply their knowledge to their job or vocation in a professional way and possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of ??study				x
CB3	Students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical topics				x
CB4	Students can pass on information, ideas, problems and solutions to both a specialized and non-specialized audience				x
CB5	Students have developed the learning skills needed to undertake further studies with a high degree of autonomy				x

GENERAL		Weighting			
		1	2	3	4
CG4	Developing professional practice with respect to patient autonomy, beliefs and culture				x
CG5	Recognizing the limitations themselves and the need to maintain and update their professional competence, giving special importance to the autonomous learning of new knowledge and techniques and to the motivation for quality			x	
CG6	Developing professional practice with respect for other health professionals, acquiring teamwork skills				x

CG9	Understanding and recognizing the effects, mechanisms and manifestations of the disease on the structure and function of the human body		x	
CG11	Understanding and recognizing the effects of growth, development and aging on the individual and their social environment			x
CG12	Understanding the basis of action, indications and efficacy of therapeutic interventions, based on available scientific evidence		x	
CG13	Getting and writing a medical history containing all relevant information			x
CG14	Perform a physical exam and mental assessment			x
CG15	Having the ability to make an initial diagnostic judgment and establish a reasoned diagnostic strategy			x
CG16	Recognizing and treating life-threatening situations and those that require immediate attention			x
CG17	Establishing all diagnosis, prognosis and treatment, applying principles based on the best possible information and clinical safety		x	
CG18	Indicating the most appropriate therapeutics of the most prevalent and chronic acute processes, as well as terminally ill patients			x
CG19	Raising and proposing appropriate preventive measures for each clinical situation		x	
CG20	Acquiring enough clinical experience in hospital institutions, health centers or other health institutions, under supervision, as well as basic knowledge of patient-centered clinical management and appropriate use of tests, medicines and other health system resources		x	
CG21	Listening to carefully, obtain and synthesize relevant information about the problems afflicting the patient and understand the content of this information			x
CG22	Writing medical histories and other medical records in an understandable way to outsiders			x
CG23	Communicating effectively and clearly, both orally and in writing, with patients, family members, media workers and other professionals			x
CG24	Establishing good interpersonal communication that enables patients, family members, media workers and other professionals to address patients, families, media and other professionals with efficiency and empathy			x

CG29	Knowing national and international health organizations and the environments and conditions of different health systems		x		
CG33	Maintaining and using records with patient information for further analysis, preserving data confidentiality			x	
CG36	Being able to formulate hypotheses, critically collect and evaluate information for problem solving, following the scientific method				x

SPECIFIC		Weighting			
		1	2	3	4
CE33	Recognizing, diagnosing and guiding the management of the main skin pathologies	x			
CE34	Recognizing, diagnosing and guiding the management of the main diseases of the blood. Normal and pathological pregnancy and delivery. Puerperium. Sexually transmitted diseases	x			
CE35	Recognizing, diagnosing and guiding the management of the main gynecological pathologies. Contraception and fertilization	x			
CE36	Recognizing, diagnosing and guiding the management of the main ophthalmological pathologies		x		
CE37	Knowing tumor disease, diagnosis and management		x		
CE38	Recognizing, diagnosing and guiding the management of the main ear, nose and throat pathologies		x		
CE39	Recognizing, diagnosing and guiding the management of the main cardiocirculatory pathologies				x
CE40	Recognizing, diagnosing and guiding the management of the main diseases of the digestive system	x			
CE41	Recognizing, diagnosing and guiding the management of major nephrourinary pathologies	x			
CE42	Recognizing, diagnosing and guiding the management of the main pathologies of the locomotor system	x			
CE43	Recognizing, diagnosing and guiding the management of the main pathologies of the respiratory system	x			
CE44	Recognizing, diagnosing and guiding the management of the main pathologies of the endocrine system. Nutritition pathology		x		

CE45	Recognizing, diagnosing and guiding the management of the main pathologies of the central and peripheral nervous system				x
CE46	Knowing the main infectious agents and their mechanisms of action			x	
CE47	Recognizing, diagnosing and guiding the management of the main infectious diseases in the different rgans and systems			x	
CE48	Recognizing, diagnosing and guiding the management of the main inmune systems' pathologies.			x	
CE49	Knowing the morphological and functional characteristics of the newborn, child and adolescent. Growth. Premature newborn	x			
CE50	Recognizing, diagnosing and guiding the management of the main pediatric pathologies. Child nutrition. Diagnosis and genetic counseling. Cognitive, emotional and psychosocial development in childhood and adolescence	x			
CE51	Knowing the biological, psychological and social foundations of personality and behavior		x		
CE52	Recognizing, diagnosing and guiding the management of psychiatric disorders. Psychotherapy			x	
CE53	Recognizing, diagnosing and guiding the management of major poisonings. Palliative medicine	x			
CE54	Recognizing the characteristics of the pathology prevalent in the elderly. Family and community medicine: living environment of the sick person, promotion of health at the family and community level			x	
CE55	Recognizing, diagnosing and guiding the management of life-threatening situations				x
CE56	Knowing how to make a complete anamnesis, patient-centered and oriented to the various pathologies, interpreting its meaning				x
CE57	Knowing how to do a physical examination by devices and systems, as well as a psychopathological examination, interpreting its meaning			x	
CE58	Knowing how to evaluate the changes of clinical parameters in the different ages. Pregnancy exploration and monitoring		x		
CE59	Establishing an action plan, focused on the needs of the patient and the family and social environment, consistent with the symptoms and signs of the patient			x	
CE60	Knowing how to do basic and advanced life support			x	

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Analytical and synthesis capacity			x	
CT2	Planification and organization capacity			x	
CT3	Oral and written communication in mother language			x	
CT7	Solving problems			x	
CT8	Making decisions			x	
CT9	Team work				x
CT10	Interdisciplinary team work				x
CT12	Interpersonal relationship skills			x	
CT14	Critical reasoning				x
CT15	Ethical commitment				x
CT16	Individual learning			x	
CT17	New situations' adaptation			x	
CT26	Knowing how to value personal action and know your own skills and limitations				x
CT32	Being able to establish and maintain relationships with other professionals and institutions				x
CT33	Knowing how to get relevant information from personal interviews				x

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	10,00%	Open questions
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	55,00%	Tests
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	10,00%	Practices
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	5,00%	Participation in class
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	10,00%	Simulations, ECOE
R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	10,00%	Practice exam

Observations

MENTION OF DISTINCTION:
In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1	Masterclass
M2	Problems resolution and practical cases
M3	Virtual simulations
M4	Content presentations by teacher
M5	Knowledges and skills explanation
M7	Oral presentation by student
M8	Group activities supervised by professor
M9	Knowledge acquirance through student interaction and activity
M11	Personalised attention by professor
M12	Tests to understand the level of knowledge acquirance and skills

M13	Written work
M14	Online activity on e-learning
M15	Personal study
M16	Information research
M17	Discussion and solving issues in group
M18	Work in team
M19	Group work for searching, discussion and information research
M21	Supervision of clinical histories
M22	Clinical practices

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theory class M1, M4, M7, M11	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	80,00	3,20
Seminar and group practices M2, M13, M21, M22	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	16,00	0,64
Practices in small groups M2, M13, M15, M16, M17, M22	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	3,00	0,12
Tutoring M11	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	6,00	0,24
Evaluation M7, M8, M13, M15	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	5,00	0,20
TOTAL		**110,00**	**4,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
No attendance M13, M14, M15, M16	R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	115,00	4,60
TOTAL		**115,00**	**4,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
The clinical method in Neurology	The neurological diagnostic process. The steps of the clinical method. The clinical history and examination in neurology. Complementary techniques for the neurological diagnosis: structural and functional studies. CSF study. Analytics. Pathological anatomy.
Cranial nerves	Optic nerve disorders. Oculomotor and gaze disorders. Tolosa-Hunt syndrome. Visual field and acuity disorders. Facial nerve disorders
Pathophysiology of increased intracranial pressure syndrome	Monro-Kellie theory, ICP measurement methods, clinical puncture, "benign" ICH syndrome or "Pseudotumor Cerebri". Brain herniation. Anatomical recall and clinical correlation
Consciousness disorders	Acute confusional syndrome. Coma; diagnosis and clinical examination. Normal sleep, sleep disorders, maintenance of wakefulness. Hypersomnias: narcolepsy, sleep apnnea-hypopnea syndrome, parasomnias

Vascular diseases of the central nervous system	Introduction. Terminology. Epidemiology. Risk risk factors. Primary and secondary prevention. Classifications. Neuro-vascular syndromes. Ischemic stroke: ethiopathogenesis and subtypes, TIA clinical diagnosis and treatment, Cerebral infarction clinical diagnosis and treatment. Treatment in the acute phase of cerebral infarction. Stroke units and stroke code. Global cerebral ischemia. Hemorrhagic stroke diagnosis and treatment. Subarachnoid hemorrhage and its complications. Cerebral venous thrombosis. Vascular pathologie of spinal cord. Neuroimaging in vascular diseases of the brain and spinal cord. Main surgical procedures in cerebral vascular diseases
Metabolic encephalopathies	Semiology and examination of metabolic encephalopathies. Hypertensive encephalopathy. Hepatic encephalopathy. Uremic encephalopathy and neurological complications of dialysis. Endocrinologic encephalopathies.
Seizures and epilepsy	Definition, epidemiology, pathophysiology, classification and diagnosis of epileptic seizures. Complementary exams. Differential diagnosis of epileptic seizures. Main epileptic syndromes. Status epilepticus Special circumstances in epielpsy: pregnancy, social and personal health aspects Refractory epilepsy. Surgery in epilepsy.
Spinal cord diseases	Anatomical references. Semiology of spinal cord injuries. Semiology of spinal cord diseases. Main spinal cord syndromes. Etiopathogenesis: extrinsic and intrinsic patology of spinal cord Systemic diseases and spinal cord Spinal cord surgery: spinal compression syndrome, spinal tumors, herniated discs and vertebral spondylosis. Patient care approach: lumbalgia and cervicobrachialgia Syringomyelia: anatomical review and clinical correlation, surgical treatment

Infections of the nervous system	Meningeal syndrome, semiology, differential diagnosis 1) Anamnesis and examination 2) Utility of serological, CSF, serologic and neuroimaging exams for diagnosis and treatment. Acute and chronic meningitis. Encephalitis. Neurological aspects of HIV, JC virus and prion diseases
Demyelinating diseases	Multiple Sclerosis: etiopathogenic factors, mechanisms and disease pathology, natural history of disease, subtypes, Diagnostic criteria. Current diagnoses. Contribution of MRI and CSF to the diagnosis and management of the disease. Differential diagnosis and treatment strategy. Acute disseminated encephalomyelitis: etiopathogenesis, clinical-radiological characteristics, prognosis and treatment. Neuromyelitis optica: clinical diagnosis, prognosis and treatment. Leukodystrophies classification. Adrenoleukodystrophy, osmotic myelinolysis, Marchiava-Bigmani. Neuroimaging in inflammatory and demyelinating diseases of the central nervous system.
Headaches and craniofacial pain	Pathophysiology and classification. Diagnostic approach to the patient with headache. Warning signs in headache. Main clinical syndromes. Trigeminal neuralgia Pain surgery
Movement disorders	Anatomical and pathophysiological review of the basal ganglia. Hypokinetic syndromes. Semiological findings in Parkinsonian syndromes. Parkinson's disease. Differential diagnosis of akinetic syndromes Progressive Supranuclear Palsy, Multisystemic Atrophies. Pharmacological aproach. Advanced therapies: surgery in Parkinson's disaese. Hyperkinetic syndromes. Semiologig findings. Tremor, myoclonus, chorea, dystonia, Huntington's disaese, Gilles de la Tourrette syndrome, restless legs syndrome, essential tremor.

Dementia	Review and clinical examination of mental functions. Concept of dementia as a clinical syndrome. Degenerative dementias. Alzheimer disease. Other degenerative dementias (Lewy body dementia, frontotemporal dementia, dementia associated with Parkinson's disease, corticobasal degeneration). Anatomy and neuropsychological profiles. Disease management Non-degenerative dementias: vascular origin (multi-infarct), infectious (neurosyphilis, HIV), prion diseases, toxic-deficiency diseases. Pseudodementia concept. Approach to patients with dementia: caregivers and family environment
Progressive ataxias and other multisystemic abiotrophies	Spinal and spinocerebellar degenerative diseases. Motor neuron diseases: hereditary, toxic, amyotrophic lateral sclerosis.
Diseases of the peripheral nervous system	General concepts and classification. Diagnostic approach, complementary exams Acute polyneuropathies: Gullain-Barré syndrome diagnosis and treatment. Chronic ployneuropathies: acquired and genetically determined polyneuropathies Multineuropathies. Focal neuropathies Muscular dystrophies. Myotonic syndromes. Periodic paralysis syndromes. Diseases of neuromuscular junction: myasthenia gravis and other myasthenic syndromes. Pathophisiology, concept, classification and diagnostic approach.
Paraneoplastic syndromes	Concept, pathophisiology, main clinical syndromes, onconeuronal antibodies, treatment.
Developmental abnormalities and neurocutaneous syndromes	Concept and classification. Main syndromes: neurofibromatosis, tuberous sclerosis, Von Hippel-Lindau syndrome, Sturge-Weber syndrome
Brain and spinal cord malformations	Brain malformations. Healthcare approach to hydrocephalus and craniosynostosis. Spinal cord malformations. Newborn with myelomeningocele. Overt and hidden spina bifida. Combined forms. Other anomalies

Expansive intracranial diseases	Neurosurgery in the patient with brain cancer. Brain metastases, primary brain tumors. Clinical approach to intracranial tumor; neurological and neuroendocrinological syndromes
Head injuries	Epidemiology and pathophysiology Classification of cranial traumatisms: epicranial, cranial and encephalic injuries. Care planning

Temporary organization of learning:

Block of content	Number of sessions	Hours
The clinical method in Neurology	5,00	10,00
Cranial nerves	5,00	10,00
Pathophysiology of increased intracranial pressure syndrome	3,00	6,00
Consciousness disorders	3,00	6,00
Vascular diseases of the central nervous system	3,00	6,00
Metabolic encephalopathies	2,00	4,00
Seizures and epilepsy	2,00	4,00
Spinal cord diseases	2,00	4,00
Infections of the nervous system	3,00	6,00
Demyelinating diseases	3,00	6,00
Headaches and craniofacial pain	2,00	4,00
Movement disorders	2,00	4,00
Dementia	2,00	4,00
Progressive ataxias and other multisystemic abiotrophies	2,00	4,00

Diseases of the peripheral nervous system	2,00	4,00
Paraneoplastic syndromes	3,00	6,00
Developmental abnormalities and neurocutaneous syndromes	3,00	6,00
Brain and spinal cord malformations	2,00	4,00
Expansive intracranial diseases	4,00	8,00
Head injuries	2,00	4,00

References

Zarranz J.J. Neurología- 5ª Edición 2013. Elsevier. Spain.
Pascual Gómez, Julio. Tratado de Neurología Clínica. 2ª Edition. Ars Médica 2009.
Farreras-Rozman. Medicina Interna. 17ª Edición. 2012. Ed. Elsevier. Spain.
Greenberg MS. Handbook of Neurosurgery. 8ª Edición. Thieme Medical Publishers Inc. USA.
Joseph Jankovic, MD. Neurology in Clinical Practice. Saunders 2012. Gerald Fenichel, MD. Robert B. Dcrofl, MD.

Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

[X] Microsoft Teams

[ ] Kaltura

Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

X	Microsoft Teams
	Kaltura

Explanation about the practical sessions:

2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

[X] The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

[ ] The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: