

MASTER'S DEGREE IN NEUROREHABILITATION 60 ECTS 5th edition

STUDENT GUIDE 2024-2025







MASTER'S DEGREE IN NEUROREHABILITATION

By the Universitat Autònoma de Barcelona

(Code RUCT: 4316821)

Master's director Dr. Josep Medina Casanovas imedina@guttmann.com

Institut Universitari de Neurorehabilitació Guttmann Camí de Can Ruti, s/n 08916 – Badalona – Barcelona <u>www.guttmann.com</u> tel: +34 93 497 77 00



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Institut Guttmann presentation

With more than 55 years of experience in the treatment of people with disabilities of neurological origin, the Institut Guttmann care model is based on the intervention of an expert multidisciplinary team configured in a personalized way for each patient. This model, together with the quality and experience of the hospital Professionals, and modern and comfortable facilities, which continually incorporate the most innovative technologies in the speciality, place the Institut Guttmann among the leading hospitals in the world in its field.

We approach patient care in global and comprehensive manner, always seeking the involvements and participation of families in the rehabilitation process.

The Fundació Institut Guttmann is a private entity of social initiative, non-denominational, nonprofit and emerged from the commitment of solidarity of the Catalan civil society, faithful to its humanistic principles and holistic conception of the person, is governed by the founding expressed in its Statutes, the maximum protector is the patronage of the foundation, and it subject to the supervision of the Protectorate of Foundations of the Generalitat de Catalunya.

The Institut Guttmann - Hospital de Neurorehabilitació is a referral hospital specialized in medical and surgical treatment and rehabilitation of people with spinal cord injury, acquired brain injury or other major neurological disability. Its MISSION is always to provide the best surgical and specialized rehabilitative medical assistance in a comprehensive, continuous, personalized and with the highest level scientific, technical and human.

The Institut de Neurorehabilitació Guttmann have the mission of the development of the academic, scientific and research aspects in the field of neuroscience in general and Neurorehabilitation and technologies of personal autonomy in particular.

The confluence between the hospital center of excellence -and university institute- knowledge center- lets optimize the generation and transfer of new knowledge in this specialized field of science.

The teaching offer from the Guttmann Institute contains a wide range of training programs, which aim to contribute to the specialized training of health professionals related to the world of Neurorehabilitation, allowing them to access directly, rigorous and practical to major advances to the diagnosis, technological and therapeutic of this clinical specialty and facilitate its implementation in the health care setting.

As University Institute affiliated with the UAB, all teaching programs and the different specialization courses, after been successfully passed, results in obtaining the corresponding accreditation as an official university degree or as UAB's official degree and as the number and certification of European credits -ECTS-provided in the programs.



General information

Master's name

Master's Degree in Neurorehabilitation by the Universitat Autònoma de Barcelona

Créditos

60 credits ECTS (1.500 total hours: 280 presential hours, 510 hours of supervised activities and 710 hours of autonomous work of the student).

Master's duration

From September 2024 to July 2025 (September 16th, 2024) Classes will be taught from Monday to Friday. The calendar and dates are published on the information of each of the modules.

Master's price

The price of the Master is 3.820€ per community students and 7.320€ per non-UE students. In the case that the price Decree, approved by the Generalitat de Catalunya in the months of June-July of each year, undergoes great variations, the price of enrollment could vary. Any change will be communicated to the admitted students.

Teaching methodology

The teaching methodology is based on face-to-face (directed classes), supervised and autonomous classes. Depending on the evolution of the pandemic, the teaching methodology may experience some modification depending on the restrictions on face-to-face attendance imposed by the authorities.

Material resources and services

The Institut Guttmann has all the management services for the proper functioning of any company: management, administration, general services, communication, human resources, computing, prevention, etc. as well as the clinic-care services of a hospital: Medical area, nursing, functional rehabilitation, Neuropsicosocial, etc. You can find more information on the website:

https://www.guttmann.com/en/organos-gobierno

Teaching Secretary

The Teaching Secretary of the Institut Guttmann is the responsible of coordinating the processes of the academic management of the students, as well as the assessment and management of the general procedure for the access to the UAB, grants, tuition payment amounts and expeditions of academic degrees, etc.

e-learning-Guttmann platform

The Master uses an additional teaching platform to support learning and communication between students and teachers. It contains teaching guides for each of the modules, scripts and class recommended bibliographic references, e-mail contact with the coordinators and teachers and forums where students and teachers have the opportunity to maintain contact outside classroom hours.



Classrooms

We have two classrooms with capacity for 30 people and another classroom for 100 people. All of them have projector, computer, internet connection ADSL, WiFi, screen, microphone, speakers, etc.

Documentation Center

The "Documentation Center on Neurorehabilitation - Santi Beso Arnalot*" is a Institut Guttmann's initiative that makes available to people interested in Neuroscience and Neurorehabilitation in particular, the documentation necessary to deepen this area of science.

You may check, in person or electronically, publications, audiovisual material and databases, both national and international, most relevant to the field of medicine. The documentation center provides health or bioengineering professionals, students, affected people and other groups the following services:

- Reference and guidance service.
- Bibliographic information service.
- Consultation of the document collection (periodicals, monographs).
- Consultation of the biomedical databases.
- Elective diffusion of the information service.
- Access to the Internet-Wi-Fi red service.
- Documents obtaining service.
- Legislative, health and social information service.

Currently we have 14 points of reading, 3 computers, one photocopier, scanner 1, interlibrary loan service and Wi-Fi.

We have 869 books and pamphlets, 804 volumes of paper journals, 338 volumes of electronic journals and 21 doctoral thesis. We are subscribed to 21 magazines, including 15 electronic accesses and 6 in paper.

Access to free databases:

Medline, Cochrane Library Plus, IBECS (Spanish Bibliographical Index in Health Sciences) Trip Database

And we facilitate access to Web Science.

https://www.guttmann.com/en/centro-documentacion-santi-beso-arnalot-santi-beso-arnalotdocumentation-centre

Restaurant service

The Institut Guttmann has a self-service restaurant, a coffee bar with terrace, lounge / dining room and a kitchen with microwave and a washing office to clean the tools used for eating.

The students who do the meals at the self-service restaurant, the days that have theoretical classes programmed on the teaching guides, will have discount tickets, which can be requested at the teaching secretary.



UAB student card

The UAB card is a tool for identification and accreditation only to members of the university community, which provides free access to the various services of the University.

Once you are enrolled, we will send your information to the UAB and we will inform you of the procedure to request the card.

Language

The Master is taught in Catalan 50%, Castilian 40% and English 10%. At the beginning of the Master, if there are students who do not speak the Catalan language, teachers taught their classes in Castilian, but as the course progresses and when the students begin understanding the language, classes might be taught in Catalan. The scientific literature generally, is published in English and some visiting teachers may offer their class or lecture in that language. The UAB has a "Plan for Languages", aimed at the students. You can find more information at the following link:

https://www.uab.cat/web/uab-languages-1345709197130.html

How to arrive to the Institut Guttmann

Accessing to the following link, you will find the google-maps map that teaches different routes to arrive to the Institut Guttmann and guides of the different public transport in Barcelona and Badalona.

http://www.guttmann.com/es/como-llegar http://www.tusgsal.cat/cast/servicio-de-autobus/can-ruti-barcelona.html

Accommodation

Accessing to the following link, you will find information about accommodation that coul be of your interest:

https://siidon.guttmann.com/es/oportunidades/vivienda

Information and contact

For any other information you can contact:

Fundació Institut Guttmann Teaching Secretary Camino de Can Ruti, s / n, 08916 Badalona Tel: +34 934977700 ext 2350 Fax: +34 934977715 E-mail: <u>docencia@guttmann.com</u> <u>www.guttmann.com</u> <u>www.guttmanninnova.com</u>



Access to the studies

Perfil de ingreso

The Master's Degree in Neurorehabilitation is aimed at professionals in the field of health sciences, especially physiotherapists, occupational therapists and physical educators, interested in improving their knowledge and skills in the treatment and rehabilitation of people affected by a large physical disability of neurological origin both from a health perspective and social perspective, as well as initiate research in Neurorehabilitation.

The students of this Master must be people motivated by teamwork, with logical reasoning ability, interest in scientific and technological advances, and with the ability to work in an organized ad methodical manner, and to value quality at work.

Admission requirements

Have an official Spanish or foreign degree, preferably in the knowledge related to health and sports sciences: graduated in physiotherapy, occupational therapy, Physical Activity and Sports Sciences, Special Education or Physical Education Speciality Teacher and other related qualifications.

Selection criteria

The criteria and selection requirements for the U. Master in Neurorehabilitation are included in the SIQuA PC1 Definition of the admission profiles and access to the studies.

If the number of registrants exceeds the number of places offered, the adjudication of places will be made according to the following selection criteria. The Teaching Committee will assess (based on 10 points) the candidate's request according to the following criteria:

- Curriculum, from which the following aspects Will be evaluated:
 - Previous professional experience in the field of rehabilitation and disability.
 Each year of experience is valued with 1 point up to a maximum of 5 years.
 - Previous training linked to the Master (assistance and / or participation in postgraduate courses, conferences, congress, publications and training stays). Each training action carried out by the candidate Will be valued with 0.5 points up to a maximum of 10 activities. All the participations or publications must be justified with a copy of the participation certificate or the publication.
- Academic record of the qualification of the degree that gives you access to the master, with an average grade (on scale of 0 to 10).

The Teaching Committee uses a grid where it values and punctuates the 3 parameters of each one of the applicant students and we confer the values of 60% for work experience in the field of rehabilitation and disability, 20% for specific training in this area and 20% for the average grade of the academic record of the degree that gives you access to the master.

Likewise, the candidate Will present a personal letter addressed to the Master's Coordinator, explaining his experience in the field, his professional interest and his expectations at the end of the studies.

Admission entity

The admission Will be resolved by the UAB Rector's at the proposal of the Teaching Commission of the Institut Guttmann.



Admission periods

There will be three admission periods stablished:

- The students who have been preregistered between January 12nd and March 31st will receive the admission resolution at the end of April.
- The students who have been preregistered between April 01st and May 31st will receive the admission resolution at the end of June.
- The students who have been preregistered between June 01st de and July 13th will receive the admission resolution at the end of July.
- Students who have been preregistered in the extraordinary period that end on 31st August will receive the admission resolution at the latest on September 04th.



Preinscription and enrollment

Preinscription

The Master's preinscription should be done on-line in the UAB's web site.

https://www.uab.cat/web/estudiar/official-master-s-degrees/general-information-1096480962610.html?param1=1267601211513

You must read the instructions carefully before registering:

- Check that you meet the admission requirements
- That you have the documentation to access. The documentation requested must be scanned hanged in the pre-inscription application.

Obligatory documentation:

- Academic record of the qualification of the degree that gives you access to the master, with an average grade (on scale of 0 to 10).
- •
- University degree / Substitution certificate of the university degree (if studies have already been completed)
- Curriculum Vitae
- Accreditive documentation of the training in the scope of the Master (courses, seminaries, workshops) included in the CV
- Motivation letter
- B1 Certificate of Spanish (only candidates from non-Spanish speaking countries)
- Certificate issued by the University in which it is detailed that de university studies give access to the realization of a Master (only candidates with degrees obtained outside Spain)

In case you can't deliver this documentation in the established period, or if you want to modify the presented information, you can send the documentation to the Teaching Secretary through the mail <u>docencia@guttmann.com</u>

The Master's Committee can request a certificate issued by your origin University, which includes the studies presented as access to the Master.

Admission

Once the selection of the candidates has been made, you will receive a letter via e-mail from the Teaching secretary of the Institut Guttmann, where you will be informed of the admission resolution.

Place reservation

If you have been admitted, you must formalize the reservation of the place. To do so, you must make a transfer to the Institut Guttmann account, which we will indicate in a timely manner, of $500 \in$, $1.000 \in$ or $1.5000 \in$ (you must choose an amount between the three options) as preenrollment and according to your interests.

This amount will be deducted from the final amount of the registration, it isn't returnable in case of not formalizing the enrollment and can't be transferred to another course. If this reservation is not made in the established period, we reserve the right to assign the place to another applicant.



Documentation for the Master matriculation

Your final admission to the Master will be subject to the verification of the documentation that you have submitted.

If you are a new access student, you must deliver to the Institut Guttmann Teaching Secretary:

- 1. Pre-enrollment formulary completed and signed (scanned document).
- 2. Identity document valid at the time of matriculation (scanned document).
- 3. Certified / legalized photocopy of the degree that gives you access to the Master or official academic certificate that accredits the expedition (by ordinary mail).
- 4. Certified / legalized photocopy of the official academic certificate of the studies that gives you access to the Master, which includes the period in academic years of the degree, the courses taken, the Credits and the obtained grades (by ordinary mail).
- 5. A color photography.

If you access to the Master with a degree obtained at a foreign university, you must know that: The documentation referring to the degree and academic certificate issued by a European Union Institution, signatory of the Agreement on the European Economic Area and Switzerland, must be official and have been issued by the competent authorities.

The documentation referring to the degree and academic certificate issued by institutions of non-EU countries must be official, must have been issued by a competent authority and must be legalized through diplomatic channels or, by means of the Apostille of the Hague Convention or of the Andrés Bello Agreement.

Translation of documents issued abroad:

All documentation issued in Catalan, Spanish or English is accepted. About the documentation issued in French, Italian or Portuguese, the translation can be processed in the Language service of the UAB. The interested person must take care of the charge of this management and the expenses that it entails. Un all other cases, the corresponding translation must be attached to Catalan, Spanish or English and have to be made by a sworn translator, by a diplomatic or consular representation of the Spanish State abroad or by an diplomatic or consular representation in Spain of the country which the applicant is a national.

If you have formalized the enrollment in the previous academic courses:

- 1. Pre-enrollment formulary completed and signed (scanned document).
- 2. Documento de identidad vigente en el momento de la matrícula (Documento escaneado).

If you want to formalize part-time enrollment:

If you decide not to enroll in an entire course, you can apply for the part-time enrollment regime. The authorization is automatic, and it is not necessary to provide any supporting documentation. If after you have started the academic year you want to request a dedication regime change, consult the academic calendar to do this process. For more information, consult the UAB Permanence System.

Enrollment

If you have been admitted to the Master, you will receive the pre-enrollment form in July, which you must return us filled out and signed. In this sheet you will inform us about the modules you are enrolling in this edition, the orientation that you will be taking and the type of registration you will be able to access (of you have free services, scholarships, etc.)



If you have requested a scholarship from the Ministry or have a free service, you must send us the supporting documents so that you can be exempt from the payment of the official academic services until the resolution of the scholarship, if applicable.

Then we will send you the formal registration of the Master.

The enrollment period will be from July to September.

Payment

The enrollment payment should be made by transfer to the account that you will see indicated on the enrollment sheet:

- 1. In a single payment: the enrollment fee will be paid once the registration is formalized and the latest, on August 13th, 2024.
- 2. In three payments, only if you formalized the enrollment before August 13th. 30% of the amount of the Credits enrolled, plus the total of the compulsory and optional administrative services, from the same day you formalize the registration and the latest on August 13th. Another 30% before October 13th and the remaining 40% before December 08th, 2024.

Aid, grants and calls

The UAB "<u>Aid, grans and calls</u>" engine portal offers up-to-date information about the aid, grants and calls for the university community. You can filter the search by official Master's aids. The portal not only includes all the aids offers by the UAB, but also includes come aid from other institutions that may be of your interest.

Procedures for foreign students

If you are a foreigner student, through the following links, you will find the necessary information to formalize your stay in our country.

https://www.uab.cat/web/mobility-international-exchange/mobility-international-exchange-programmes/types-of-visa-1345671997933.html

If you are a European Union student:

https://www.uab.cat/web/study/graduate/official-master-s-degrees/legal-procedures-forstudents-from-the-european-union-1345666815170.html

Health coverage for European union students:

https://www.uab.cat/web/study/undergraduate/admission/health-coverage-for-europeanunion-citizens-1345666835633.html

If you are a non-EU student:

Notifications:

https://www.uab.cat/web/study/graduate/official-master-s-degrees/notifications-for-studentsfrom-outside-the-european-union-1345666815200.html

Types of visa:

https://www.uab.cat/web/mobility-international-exchange/mobility-international-exchange-programmes/types-of-visa-1345671997933.html

Residence permit:

https://www.uab.cat/web/study/graduate/official-master-s-degrees/residence-permit-1345666815230.html



Formative objectives

The fundamental objective of the Master is that students acquire the specialized knowledge and skills necessary to address the assistance of the patient with spinal cord injury, brain damage or other neurological disability, globally and comprehensively, in adult and pediatric age. From a physical, psychic and social dimension, optimize the generation and transfer of new knowledge in the specialized field of neuroscience and neurorehabilitation.

Results of the training and learning process:

The master prepares students to recognize and integrate the causes and consequences of neurological disability and to propose creative solutions in therapeutic approach to patients in different work environments, as well as to plan, design and develop innovation and research projects applied to Neurorehabilitation. Students will delve into aspects of comprehensive and direct patient care and will know how to interpret and apply the latest therapeutic strategies and new neurorehabilitation technologies that improve their quality of life.

Knowledge:

KT01 Have extensive knowledge that provides a basis or opportunity to be original in the development and/or application of treatment techniques for patients with neurological involvement in the process of rehabilitation from all disciplines and in each individual student's own.

KTO2 Demonstrate extensive and detailed knowledge of the structure and function of the Nervous System, in addition to functional assessment measures, adapted and inclusive sport, necessary and essential in a context of applied research and to control the evolution of patients.

KT03 Have sufficiently knowledge to know how to plan the problem-solving structure in an orderly and sequenced manner in new or little-known environments within broader (or multidisciplinary) contexts, since due to the complexity of each patient with neurological pathology (adult or childish). Teamwork is essential to direct and accompany patients until the objectives set in joint sessions are achieved, where all members of the rehabilitation team participate.

KT04 Have the conceptual knowledge necessary to integrate and be selective of all of them, to face the complexity of formulating judgments based on information that, since each situation of each patient is unique, and being incomplete or limited.

KT05 Demonstrate extensive and detailed knowledge so that students can transmit information, ideas, problems and solutions to a specialized audience within the same multidisciplinary team in which they are integrated, as well as in work teams from other institutions, having the ability to be selective in its contents to communicate clearly, simply and easily understood, even for non-specialized personnel.

KT06 Be aware of the importance of establishing a close relationship between healthcare processes and applied research through translational research



Skills:

ST01Have and advanced command of usability of neurorehabilitation technologies and which care, maintenance and patient care techniques are most appropriate to improve the quality of life of people affected by disability of neurological origin, including physical activity and the sport.

ST02 Know how to analyze and treat the causes and physical, psychological and social consequences of neurological disability, applying the acquired technical and cognitive skills.

ST03 Demonstrate a command of functional examinations of the nervous system and apply advanced techniques that allow diagnosis and definition of therapeutic strategies in neurorehabilitation.

STO4 Apply theoretical knowledge in neurorehabilitation to solve problems regarding the treatment and specialized rehabilitation of people with spinal cord injury or acquired brain damage, as well as the complications of their pathology.

ST05 Being able to use the necessary methodological bases plan, design and develop research and innovation projects oriented to the clinical practice of neurorehabilitation that generate new knowledge in the field of neurorehabilitation.

ST06 Know how to demonstrate a critical understanding in relation to the patients' clinical histories that includes reflection on the social and ethical responsibilities linked to the application of their knowledge and judgments.

Competencies:

CT01 Assume responsibilities in decision-making reasoning with a critical sense before different professional actions in patients with severe disabilities of neurological origin.

CTO2 Being able to propose work protocols through the search for information in the scientific literature and act with autonomy and criteria for the development of these within the criteria, mission, vision and values of the institution where exercises his professional practice.

CT03 Work in accordance with professional deontology and responsibility.

CT04 Have the necessary qualities to integrate into multidisciplinary teams in diverse scientific environments, creating and maintaining a climate of open collaboration and teamwork.

CT05 Demonstrate mastery of skills and sufficient learning resources so that they can continue studying and training firmly and have sufficient knowledge to delve into specific topics of the neurorehabilitation speciality (specific therapeutic techniques, external socializing and sports activities).



Studies plan

The studies plan is organized following a module structure, which are coherent with the general objectives and guarantee the acquisition of the competences of the degree.

The Master's Degree in Neurorehabilitation is structured in 7 modules, all of them mandatory:

- Class learning subjects: 2 subjects of 9 ECTS and 3 subjects of 6 ECTS
- Practical module: 1 subject of 15 ECTS
- Master's Final projects: 1 subject of 9 ECTS

1 st SEMESTER			2 nd SEMESTER				
SUBJETC	ECTS	TO STUDY	CHARACTER	SUBJECT	ECTS	TO STUDY	CHARACTER
Neurorehabilitation and physical activity	6	6	Obl	Research and Innovation in Neurorehabilitation	6	6	Obl
Principles of Neuroscience	6	6	Obl	Work Placement	15	15	Obl
Physiopathology and Therapeutic Approaches of Spinal Cord Injuries	9	9	Obl	Work Placement	9	9	Obl
Physiopathology and Therapeutic Approaches to Brain Damage and Neurodegenerative Diseases, in Adults and Children	9	9	Obl				
Total	30			Total	30		



Faculty

The Master's degree in Neurorehabilitation teaching tea mis made up of clinical professionals and researchers with extensive experience in the field of Neurorehabilitation, among others:

- **Dr. Joan Vidal Samsó**. Professor in Medicine. Specialist in Physical Medicine and Rehabilitation. Coordinator of the Master's Degree in Neurorehabilitation. Teaching director at the Institut Guttmann.
- **Dr. Josep Medina Casanovas**. Doctor in psychology. Diploma in physiotherapy. Director of the Master's Degree in Neurorehabilitation.
- **Dr. David Bartrès-Faz**. Doctor in psychology. Responsible of the research program in Brain Health (Barcelona Brain Health Initiative)
- **Dr. Jesús Benito Penalva**. Doctor in Medicine. Specialist in Physical Medicine and Rehabilitation at the Institut Guttmann
- **Dra. Beatriz Castaño Monsalve**. Doctor in Medicine. Specialist in Psychiatry at the Institut Guttmann
- **Dr. Gabriele Cattaneo**. Doctor in Biomedical Engineering. Research and Innovation department at the Institut Guttmann
- **Dr. Alejandro García Rudolph**. Doctor in Informatics Engineering. Research and Innovation department at the Institut Guttmann
- Dra. Anna Gilabert Escorsa. Doctor in psychology at the Institut Guttmann
- Dra. Hatice Kumru Cam. Doctor in Medicine. Specialist in Neurology at the Institut Guttmann
- **Dra. Narda Murillo Licea**. Doctor in Neurosciencies. Unitat de Rehabilitació Funcional a l'Institut Guttmann at the Functional Rehabilitation Unit at the Institut Guttmann
- **Dr. Xavier Navarro Acebes**. Professor of the Cell Biology, Human Physiology and Immunology at the UAB. Director of the UAB neural regeneration at the UAB.
- **Dr. Eloy Opisso Salleras**. Doctor in Biomedical Engineering. Responsible of the Research and Innovation department at the Institut Guttmann
- **Dr. Raúl Pelayo Vergara.** Doctor in Medicine. Specialist in Physical Medicine and Rehabilitation at the Institut Guttmann
- Dra. Rocío Sánchez-Carrión Abascal. Doctor in psychology. Specialist in Neuropsychology at the Institut Guttmann.
- Dr. Joan Saurí Ruiz. Doctor in Psychology at the Institut Guttmann
- **Dr. Javier Solana Sánchez**. Doctor in Biomedical Engineering. Research and Innovation department at the Institut Guttmann
- **Dra. M. Dolors Soler Fernández.** Doctor in Neurosciences. Specialist in Clinical Psychology at the Institut Guttmann
- **Mr. Edgar A. Buloz Osorio.** Licensed in Medicine. Specialist in Physical and Rehabilitation Medicine. Master's Degree in Neurorehabilitation. Rehbailitación Physician at Institut Guttmann.
- **Dra. Margarita Vallès Casanova**. Doctor in Medicine. Specialist in Physical Medicine and Rehabilitation at the Institut Guttmann



A01.-Neurorehabilitation and Physical Activity

Code: 44133 **Coordinator: Dr. Josep Medina Casanovas** Mail: <u>imedina@guttmann.com</u> Dates: from September 16th to 20th and from September 25th to 27th, 2024 Schedule: from 9 a.m. to 2:30 p.m.

Objectives:

Provide the tools to understand the multidisciplinary (bio-psycho-social model) of the Neurorehabilitation, considering the great variability of symptoms of the neurological patient, as well as the procedures used for the approach and personal, family and social adaptation to he disability in an interdisciplinary model. Also, to know the origins and evolution of sport as a base for current adapted physical activity and to train students to carry out physical and sports activity programs with people with functional limitations in different phases of their pathology.

Workload:

6 ECTS: equivalent to 150 hours of student work, of which 45h are on-site.

- The bio-psycho-social model and interdisciplinary work
- Quality in Neurorehabilitation
- Hospital discharge planning
- Physical activity and sports as a tool for rehabilitation
- The sport of competition according to the different level of affectation
- Sport as a tool of socialization and maintenance of health

September - 2024										
MON	TUES	WED	THURS	FRI	SAT	SUN				
						1				
2	3	4	5	6	7	8				
9	10	11	12	13	14	15				
16	17	18	19	20	21	22				
23	24	25	26	27	28	29				
30										



A02.- Principles of Neuroscience

Code: 44134 **Coordinator: Dr. Xavier Navarro Acebes** Mail: <u>Xavier.navarro@uab.cat</u> Dates: from October 14th to 18th and from October 21st to 25th, 2024 Schedule: from 9 a.m. to 2:30 p.m.

Objectives:

Deepen knowledge of the Nervous System: structural, anatomical and functional bases, methods of exploration and evaluation, pathophysiology and injury mechanisms and the main therapeutic strategies used in the treatment of Central Nervous System pathologies.

Workload:

6 ECTS: equivalent to 150 hours of student work, of which 55,75h are on-site.

- Structure and function of the Nervous System
- Methods of evaluation of the Nervous System
- Physiopathology and mechanisms of Nervous System injuries

October - 2024										
MON	TUES	WED	THURS	FRI	SAT	SUN				
	1	2	3	4	5	6				
7	8	9	10	11	12	13				
14	15	16	17	18	19	20				
21	22	23	24	25	26	27				
28	29	30	31							



A03.- Research and Innovation in Neurorehabilitation

Code: 44837 Coordinator: Dr. Gabriele Cattaneo

Mail: gcattaneo@guttmann.com Dates: from November 04th to 07th, 2024 and from April 07th to 10th, 2025 Schedule: from 9 a.m. to 3:30 p.m.

Objectives:

Review the research lines related to Neurorehabilitation and study the methodological aspects of Neuroscience and Neurorehabilitation research: project design, hypothesis formulation, search, analysis and treatment of the bibliography.

Workload:

6 ECTS: equivalent to 150 hours of student work, of which 45h are on-site.

- Lines of research and scientific evidence
- Methodological tools to develop research projects
- Biomedical data storage and analysis programs
- Ethical principles in human and experimental research
- Definition of innovation, presentation of new technologies in rehabilitation and methodology for the definition of clinical requirements

	November -2024								Ар	ril - 202	5		
MON	TUES	WED	THURS	FRI	SAT	SUN	MON	TUES	WED	THURS	FRI	SAT	SUN
				1	2	3		1	2	3	4	5	6
4	5	6	7	8	9	10	7	8	9	10	11	12	13
11	12	13	14	15	16	17	14	15	16	17	18	19	20
18	19	20	21	22	23	24	21	22	23	24	25	26	27
25	26	27	28	29	30		28	29	30				



A04.- Physiopathology and Therapeutic Approaches of Spinal Cord Injuries

Code: 44136 Coordinator: Dr. Jesús Benito Penalva

Mail: jbenito@guttmann.com

Dates: from November 18th to 22th and from November 25th to 29th, 2024 Schedule: From Monday to Thursday from 9 a.m. to 5 p.m. and Friday from 9 a.m. to 2:45 p.m.

Objectives:

Provide knowledge and skills for the prevention and treatment of the main complications that affect people with spinal cord injury.

Workload:

9 ECTS: equivalent to 225 hours of student work, of which 67,5 h are on-site.

- Epidemiology and clinic of spinal cord injury
- Neurological exploration of spinal cord injury
- Clinical and surgical treatment of spinal cord injury
- Therapeutic approach of the main complications of the spinal cord injury in relation to the level and severity of the injury

November -2024										
MON	TUES	WED	THURS	FRI	SAT	SUN				
				1	2	3				
4	5	6	7	8	9	10				
11	12	13	14	15	16	17				
18	19	20	21	22	23	24				
25	26	27	28	29	30					



A05.- Physiopathology and Therapeutic Approaches to Brain Damage and Neurodegenerative Diseases, in Adults and Children

Code: 44838 Coordinator: Dr. Raúl Pelayo Vergara

Mail: rpelayo@guttmann.com

Dates: from December 09th to 13rd and from December 16th to 20th 2024 Schedule: From Monday to Thursday from 9 a.m. to 5 p.m. and Friday from 9 a.m. to 2:45 p.m.

Objectives:

Study the process of Neurorehabilitation of the different pathologies that compromise the Acquired Brain Damage (ACD) and the most prevalent Neurodegenerative Diseases in adults and children, its evaluation, diagnosis and the most advanced therapeutic strategies. It will be approached from a holistic perspective, taking into account its great complexity and variability, without forgetting aspects such as neuropsychological and logopedic rehabilitation, as well as the management of dysphagia.

Workload:

9 ECTS: equivalent to 225 hours of student work, of which 67,5h h are on-site.

- Epidemiology, diagnosis and Neurorehabilitation treatment of Traumatic Brain Injury (TBI)
- Epidemiology, diagnosis and neurological treatment and rehabilitation of the ICTUS
- Introduction to diagnosis, evaluation and Neurorehabilitation treatment of neurodegenerative diseases
- Neuropsychological Rehabilitation
- Diagnosis and treatment of neurogenic dysphagia
- Logopedic rehabilitation

December - 2024										
DL	DM	DC	DJ	DV	DS	DI				
						1				
2	3	4	5	6	7	8				
9	10	11	12	13	14	15				
16	17	18	19	20	21	22				
23	24	25	26	27	28	29				
30	31									



A06.- External practices

Code: 44836 **Coordinator: Dra. Margarita Vallès Casanova** Mail: <u>mvalles@guttmann.com</u> Dates: The practices calendar will be scheduled through individual tutoring.

Objectives:

In this module the students will have the opportunity to be integrated into multidisciplinary Neurorehabilitation teams, mainly in the care units and research groups of the Institut Guttmann, which will allow them to acquire practical skills in the evaluation, diagnostic and therapeutic processes as well as in Translational research processes in the field of Neurorehabilitation.

Workload:

15 ECTS: equivalent to 375 hours of student work:

- 365 hours are in person, of which half will be done in Guttmann Badalona and the other half in Guttmann Barcelona and, in each center, half will be done in the mornings and half in the afternoons, with the following schedule:
 - I. Guttmann Badalona: Mornings from 9 a.m. to 2 p.m. and afternoons from 2 p.m. to 7 p.m.
 - I. Guttmann Barcelona: Mornings from 9 a.m. to 2 p.m. and afternoons from 3 p.m. to 7 p.m.
- 10 hours of autonomous work.





A07.- Master's Final Project

Code: 44139 Coordinator: Dr. Alejandro García Rudolph Mail: <u>agarciar@guttmann.com</u>

Objectives:

Evidence the integration of the skills acquired by the student during their training program. The students will develop an original work in the field of Neurorehabilitation that will integrate the professional components with the research that will allow them to build new knowledge about the treatment and rehabilitation of people with neurological disabilities.

Workload:

9 ECTS: equivalent to 225 hours of student work, preparation and defense of the Master's Final Project.

Content's description:

On the intranet of the Master, students can consult the different research programs that are offered annually, as well as the regulations for the preparation and public presentation of the TFM.



Module's evaluation process

The evaluation of the subjects will be done continuously including class attendance, practices, participation in seminars and directed activities, preparation of papers, summaries, reports and the tasks of each module.

In each module, the student's degree of achievement of the learning objectives will be evaluated. The activities and evaluation calendar will be indicated in each of the teaching guides of the different modules. As general criteria we can say that passing the module will consider:

- The evaluation of each module will consist of at least three evaluation activities, of at least two different types, distributed throughout the course. None of them can represent more than 50% of the final grade of the module. Except for the modules of external practices and Master's Final Project.
- In each teaching guide, the review process and the recovery procedure and criteria will be explained.

Academic rules

This document recognizes the fundamental aspects of the regulations and academic procedures of the UAB about the Master's degree studies. You can find the complete regulation in the following link:

https://www.uab.cat/web/study/undergraduate/academic-information/academic-legislation-1345670077670.html

Rules on continuation of studies

Permanency regime is understood as the set of rules that requires to the students to perform a series of minimum academic performance requirements, the failure of which results in the suspension of their enrollment. The rules of permanence are approved by the Social Council of the UAB.

To formalize the enrollment in an academic year, the requirements established in the UAB Permanence System for each type of study must be overcame.

Dedication regime / Maximum and minimum enrollment credits

The permanency regime of the UAB establishes that students can formalize the enrollment with full-time or part-time dedication.

- If you choose full-time enrollment, you must register for a minimum of 60 credits and a maximum of 78 credits per academic year.

If you choose part-time enrollment, you must register for a minimum of 30 credits and a maximum of 42 credits per academic year.

Years of permanence

The master students have three years to complete the master studies of 60 credits and four years if they enroll in training complements. In the case of masters between 90 an 120 credits, students with full-time dedication have four years to complete their studies, and those with part-time dedication have an additional year.



Recognition of credits

It is understood as recognition, for the purposes of calculating credits for obtaining an official degree, the acceptance by the Institut Guttmann of the credits obtained in official university studies previously passed, in other official higher education, in university education leading to the obtaining other degrees, and in university activities not programmed in the current study plan. Credits may also be recognized through accredited work and professional experience.

Application procedure:

- The student must request the recognition of credits, in the periods established in the Master's academic calendar, accompanied by the documentation that is related below:
 - Personal academic certification, European Supplement of the degree or certified photocopy of the academic record that contains the training achieved, the academic year and the qualifications.
 - Receipts of the payment of the corresponding public prices, if applicable
 - Teaching guide of the module or subjects that contains the competences, the associated knowledge and the number of credits or of hours or weeks by semester or year, with the stamp of the corresponding center of origin.
 - Curriculum or table of subjects or modules required to achieve the previous teachings, issued by the center of origin with the corresponding stamp.
 - Any other documentation deemed appropriate to process the request.
- The credit's recognition request can be submitted afterwards, justifying the successful completion of new training content not provided in previous applications.
- Both the proposal and the recognition resolution must specify the modules or subjects considered recognized, which student in exempt from taking.

Resolution procedure

- The applications are reviewed by the academic management of the Institut Guttmann, which checks that the documentation presented is correct.
- Before issuing the proposal, the audience procedure can be opened, in which new documents or elements of judgment can be provided or the corresponding allegations can be made.
- The Master's Direction issues and resolves the resolution proposal.
- The academic management notifies the interested student of the resolution by any means that allows to have proof of receipt.

The students who have obtained the recognition of credits, for reasons of studies or activities carried out in any university center, will pay the amount established by the Decree of public prices of the Generalitat de Catalunya.

Enrollment documentation

The presentation of the required documentation will be an essential condition for the management of the academic record, for the formalization of a new registration or modification of the registration and / or the application of any academic service.

Cancellations of the enrollment and of the subjects and modules

• The center's direction will authorize the total or partial cancellation of the enrollment, if the application is submitted within the deadline set for that purpose by the academic calendar.



In justified exceptional cases, the cancellation of the enrollment may be requested after the established deadline.

- Once the cancellation of the enrollment is granted, it will be applied immediately in the academic record, having the same consideration as if the student had not enrolled, and can not be waived in any case.
- The student will only be entitled to a refund of the public price for the provision of university academic services if:
 - For reason that are not attributable to the student, the activity is not performed, or the service is not provided.
 - The student justifies serious illness, accident or any other exceptional circumstance.
 - During the reassignment process, the Guidance office for University Access awards the student a place in other studies. In this case, the amount corresponding to the enrollment documentation will not be refunded.

Enrollment modifications

- Within the deadline set for that purpose, the students may request a partial modification of the enrollment. In justified exceptional cases, the modification of the enrollment may be requested after the established deadline.
- Once the modification of the enrollment is granted, it will be applied immediately in the student's academic record and can't be waived in any case.
- The academic calendar will establish two terms for modification of enrollment:
 - In the first term, modifications that may have economic effects corresponding to subjects o modules of the first and second semester may be accepted.
 - In the second term, only modifications corresponding to subjects or modules taught in the second semester may be accepted, provided they haven't been previously requested and imply an economic effect increase, that have been justified.

Economic effects of the enrollment modification

- In case that there is an increase in the enrollment fee, the resulting difference must be paid, which will include the registration modification fee, in a single payment.
- In the cases where modifications of the registration suppose a decrease in the economic fee, there will be no right to the corresponding refund, except that the modification is due to causes attributable to the university or any other assumptions related in point "Cancellations of the enrollment and of the subjects and modules".
- The modifications will have the corresponding effect for those students who have applied for any of scholarships offered or managed by the UAB.

Rights and duties of enrollment

Without prejudice to any other legally established right or obligation, the registration made in accordance with this title will suppose:

- The right to attend the different training activities, and the right to be evaluated according to what is established in the teaching guides of each subject or module.
- Obtaining the corresponding UAB card, which will allow access to the services of the University.
- The right to participate in academic life, in accordance with provisions of the UAB Statutes.
- The duty to attend and carry out the training activities that are established in the teaching program.
- The duty to make the payment of prices for academic services.



Conditions of enrollment's validity

The payment corresponding to the benefit, service or activity described in the enrollment form is an indispensable condition of the validity of the registration,

Consequences of the non-payment of the enrollment

- Students who have made the payment of the enrollment fee after the established deadline must pay the costs of managing the non-payment that the UAB Social Council approves for each academic year, as well as the bank interests charged by the financial institution for the unpaid amount or the return of the bill.
- The fact of not pay the tuition within the deadlines set will entail the state of economic delinquency of the file, in accordance with what is regulated in the Decree of public prices of the Generalitat de Catalunya. In all cases, it will be essential to pay any pending expenses as a precondition for the formalization of the new enrollment or modification of the enrollment and / or for the application of any academic service.

Qualification system

The evaluation is the process of evaluating the degree of achievement of the training objectives established within the degree, based on objective and quantifiable evidence, and transparent and duly disseminated criteria.

All information related will be made public through the teaching guides of each of the modules. The grades used by the UAB will be those of the scale 0-10, with a single decimal.

To consider an approved module, it will be necessary to obtain a minimum grade of 5.0. Once the module has been approved, it can't be subject to a new evaluation.

Attendance record

The registration of the assistance of each one of the modules will realize through a marking of entrance and exit, by means of the fingerprint of each student (that will be registered only for this end, as well as to be able to access to the changing rooms during the practicum). This mark will be taken by the teaching secretary once the enrollment has been formalized.

Documents legalization

In the following link you will find the information necessary to know how to legalize your Spanish degree (and official documents) for the foreigner.

https://www.uab.cat/doc/legalizacion_tit_oficial_es



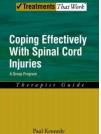
Recommended bibliography



Consortium for Spinal Cord Medicine; 1999; Outcomes following traumatic spinal cord injury: clinical practice guidelines for health-care professionals;. Paralyzed Veterans of America.



Handbook of Neurological Rehabilitation. Greenwood, Richard. Ed: Churchill Livingstone. ISBN: 0-86377-757-0



Kennedy P (2008). Coping Effectively with Spinal Cord Injuries: Workbook. Treatments that work series. Oxford University Press.



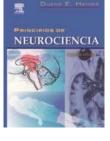
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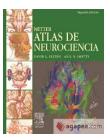


Purves D. Neurociencia. Panamericana



Haines DL. Principios de Neurociencias. (2ª ed.). Elsevier

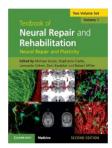




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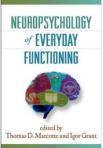


A Compendium of Tests, Scales and Questionnaires: The Practitioner's Guide to Measuring Outcomes after Acquired Brain Impairment 1st Edition by Robyn L. Tate



Textbook of Neural Repair and Rehabilitation 1, 2 Volume Hardback Set 2nd Edition

by Professor Michael Selzer (Editor), Professor Stephanie Clarke (Editor), Dr Leonardo Cohen (Editor), Gert Kwakkel (Editor), Robert Miller (Editor)



Neuropsychology of Everyday Functioning (Science and Practice of Neuropsychology) 1st Edition. by Thomas D. Marcotte PhD (Editor), Igor Grant MD (Editor)





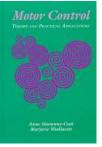
Positioning in a Wheelchair: A Guide for Professional Caregivers of the Disabled Adult. Autors: Jan K. Mayall, Guylaine Desharnais. Ed: SLACK, 1995



Neurorrehabilitación Métodos específicos de valoración y tratamiento Autores: Roberto Cano de la Cuerda / Susana Collado Vázquez



Análisis de la marcha. J Perry. Ed. Base, 2015.



Motor Control: Theory and Practical Applications. Anne Shumway-Cook, Marjorie H. Woollacott. Ed Williams & Wilkins, 1995



Fundació Institut Guttmann; 2008. Col·lecció BLOCS nº 19: Tecnologías aplicadas al proceso de neurorehabilitación





Nuevas Tecnologías en Neurorrehabilitación. Aplicaciones diagnósticas y terapéuticas" (Ed. Panamericana 2018),