CATÓLICA
FACULDADE DE MEDICINA
LISBOA

Formation in Sleep Sciences by Medical School

Advanced Sleep Training Course and Post Graduate Sleep Course Proposals

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Course Designation

Advanced Sleep Training Course

Post Graduate Sleep Course

Course Type

Advanced Course

Post Graduate Course

Scientific Area & Specialty

Sleep Medicine and Sleep Sciences

Course Purpose

Medical, Dental and Technical Training Sleep Course

Coordination Team

Coordinators

Theoretical Component

Coordinator: Amélia Feliciano

Sub Coordinator: Susana Falardo Ramos

Practical Component

Coordinator: Andreia Cardoso

Target Audience

This Advanced/Post Graduate Sleep Course is destined to professionals that already work or aim to start working in the sleep field, namely, physicians, dentists, technicians, nurses, psychologists, and sleep scientists. It will be considered candidates with a basic degree in the above-mentioned professional areas as well as people that their CV might justify their acceptance. This evaluation will be performed by the Course Coordination. Proficiency in English is required since some lectures will be given in English.

Objectives and Relevance

General

The present proposal is for an international Advanced/Post Graduate Sleep Course and has a main aim to provide professionals with a particular interest in the sleep field gathering theoretical and practical knowledge about sleep and its mechanisms as well as how to evaluate and to provide knowledge for diagnostic, therapeutic, and educational interventions in sleep.

The theoretical component will focus on physiological basis of sleep, assessment of sleep and sleep disorders, diagnostic procedures, sleep disorders in adults (insomnia, sleep-related breathing disorders, hypersomnias, circadian rhythm disorders, sleep-related movement disorders, parasomnias); sleep disorders in pediatric ages (insomnia, sleep –related breathing disorders, parasomnias, and sleep-related movement disorders), sleep and other clinical areas (Pulmonology, Neurology, Psychology, Psychiatry, Internal Medicine, Dental Medicine, and Geriatrics) . Also in the theoretical component, lectures will focus on physiologic, cognitive, behavioral, and social factors relevant for sleep quality through life span. Also, it will focus, prevention, diagnostic assessment, and therapy approach of sleep disorders. Additionally, this Course will cover some specific areas related with sleep such as nutrition, physical activity, academic and work performance.

The practical component will focus on technical aspects of sleep measurements and diagnostic procedures, and practical training.

Specific

With the purpose of providing knowledge and the necessary tools for an effective intervention in the field of sleep sciences, the following are the specific aims:

a. To understand the physiological basis of sleep, concerning its neurophysiology and neurobiology, functions, sleep and dreams, ageing and sleep, gender and sleep, circadian biology/chronobiology, effects of pharmaceuticals.

b. To understand the changes of sleep structure and organization throughout the lifespan and its relationship with the physical and psychological changes through development.

c. To acquire knowledge to assess sleep disorders and about diagnostic procedures, including classification of sleep disorders, clinical interview, and examination, monitorization of sleep and wakefulness and biomarkers of disturbed sleep.

d. To acquire knowledge of sleep disorders in adults, in concrete insomnia, sleep-related breathing disorders, hypersomnias, circadian rhythm disorders, sleep-related movement disorders, parasomnias, concerning aspects of definition, epidemiology, pathophysiology, clinical picture, diagnosis and treatment.
e. To acquire knowledge of sleep disorders in pediatric ages, in concrete chronic insomnia, obstructive sleep apnea, narcolepsy, sleep-related movement disorders, and parasomnias, concerning aspects of definition, epidemiology, pathophysiology, clinical picture, diagnosis and treatment.
f. To understand the bilateral relationship between sleep and other medical areas such as Pulmonology, Neurology, Psychology, Psychiatry, Internal Medicine, Dental Medicine, and Geriatrics.
g. To understand social, economic, organizational and research aspects of sleep medicine.
h. Ethical considerations about working in the Sleep Science field.
i. To acquire the different methods and multidisciplinary approaches in sleep research.

Relevance and Pertinence

Sleep is fundamental for survival, and it has been unequivocally demonstrated that duration, timing, and quality of sleep critically affect physical and mental health, performance, and safety.

According to recent evidence, the proportion of people getting less than the recommended hours of sleep is rising and is associated with lifestyle factors related to a modern 24/7 society, such as working hours, psychosocial stress, unbalanced diet, lack of physical activity and excessive electronic media use, among others. This is alarming since insufficient sleep has been found to be associated with a range of negative health and social outcomes, including adverse performance effects at school and in the labor market. Additionally, besides sleep deprivation there is a rise of sleep disturbances, which is explained by aging, obesity, lifestyle, psychosocial factors, and several diseases.

Insufficient sleep and sleep disturbances have a huge impact in different dimensions, such as individual homeostasis, family, society, and economy.

Over the last decades we have seen a rising interest in sleep in several areas of knowledge ranging from biology to social sciences. This increasing scientific evolution has led to the recognition of Sleep Medicine has a medical specialization in several countries (e.g., Portugal, Brazil, USA, Germany) and has a specific domain of investigation and diagnostic/therapeutic intervention with a high impact Although, in several European countries, including Portugal, Sleep Medicine is not an independent medical specialty and sleep disorders are approached by different specialists, such as Pulmonologists, Neurologists, Dentists, ENT, Maxillofacial Surgeons, and Psychologists, among others. For that reason, healthcare professionals working in the sleep field have been looking for national and/or international education and certification in this area. The only accreditation entity that exists in Portugal in the sleep field is the *Ordem dos Médicos* for the medical competency in *Medicina do Sono.* Recently the *Ordem dos Médicos Dentistas*, recognized and approved Dental Sleep Medicine, as a dental competency.

In now a days, sleep and sleep disorders are approached in different fields, such as neurology, pneumology, psychiatry, dentistry, among others, with an increasing in the interface to other scientific areas like chronobiology, psychology, or biomedical engineering. All these fields are important in medical area, but also have become fundamental to the investigation of sleep and to the conceptualization of multidisciplinary research protocols and investigation teams.

From this evolution many initiatives of higher education were developed. In Portugal between 2005-2012 the Lisbon Medical School had a Master in Sleep Sciences coordinated by Professor Teresa Paiva, but now this degree does not exist in any Portuguese university. In Europe there are three other master courses in Sleep Medicine, in Spain, Italy and UK, both online courses. For the above reasons, this course would increase the offer in this field.

Still in this sequence, in 2021 Católica University offered an Advanced Sleep Training Course, (Coordination Professor Amélia Feliciano) focusing on Medical and Technical aspects of Sleep Medicine, endorsed by European Sleep Research Society, and supported by National Sleep Societies. Considering this educational experience in the Sleep field, now is a great opportunity for Catholic Medical School to create a Pos Graduate Sleep Course gathering the expertise national and international health care professionals, where the collaborative and multidisciplinary of the sleep field may be reflected.

The European Sleep Research Society (ESRS) attributes the accreditation of somnologist to physicians, psychologists, scientists, and technicians, approved in the annual European examination. Although the number of somnologists with the European degree is still reduced, namely for psychologists and scientists. In fact, even though there are many health care professionals working in the sleep medicine area, until now only 708 European physicians, psychologists, and scientists and 191 European technicians obtained this certification. On the other hand, the European Academy of Dental Seep Medicine (EADSM) attributes the Accreditation Level and the European Expert degree on Dental Sleep Medicine.

Considering the experience with the Advanced Sleep Training Course, this Advanced/Post Graduate Course is specially oriented for those interested to work in the sleep-in clinic or research fields, and also is oriented for the preparation of the European Somnologist certification for different backgrounds (e.g., medicine, psychology, research, technicians) and also to the dental sleep Accreditation Level.

In Portugal the interest in Sleep is rising and is a growing interest not only by the scientific community but also for people searching for help. One of the main pillars of the Portuguese Catholic University is the internationalization of pre- and post-graduate courses and, being sleep a worldwide increasing problem, this international program is an excellent opportunity to put the Catholic University as an option for Sleep education in Portugal and in the world. This is a unique initiative in the Portuguese university level at the international level that can come to answer to a specific need to educate professionals to work in the field of sleep (e.g., clinically, research, education, etc).

The course would be lectured by faculty members of the Catholic University with recognized knowledge in this field as well as invited national and international experts in the different areas of sleep.

The internationalization of this Advanced/Post graduate Course comes at a crucial moment since we have been facing an international growing interest in the sleep field as well as an increased prevalence of sleep and mood problems caused by the actual COVID-19 pandemic situation. If professionals with these skills were needed, now with these recent developments they are more needed than ever. Additionally, in all Europe there are many Sleep Centers and minor Units trying to respond to the real needs in the sleep field. More than ever, there is an unmet need for skilled professionals.

Considering the previous sponsor of the Advanced Sleep Training Course by national sleep societies and ESRS, this Advanced/Postgraduate Course will be submitted to National sleep societies, ESRS, and EADSM for scientific sponsor.

Structure

This Advanced/Post Graduate Course will allow the acquisition of knowledge and competencies in the sleep sciences, comprising a theoretical (or curricular) component and a practical component. The theoretical component intends to include the main principles of sleep medicine, including the diagnostic and therapeutic approach of sleep disorders. The practical component includes training in sleep exams/ sleep center and the preparation for the assessment. The theoretical component of the course is common for the global audience, instead the practical component will be directed to student's specific audience practical requirements.

The theoretical component of this course will be on-line, and the practical component will be face-to-face. Additionally, after each module a Webinar with an international speaker will take place focusing in some important or nonconsensual issues of that module.

Schedule

Wednesday: 16-20h and Saturday: 9-18h (once a month) (about 24 hours/month).

Duration

Educational format 1: Advanced Sleep Training Course with **160 contact hours** (130 hours of theoretical component, 30 hours of practical component) (7 months) – **20 ECTS**.

Educational format 2: Post Graduated Sleep Course with **260 contact hours** (160 hours of theoretical component, 100 hours of practical component) (12 months) – **30 ECTS**. Due to the workload of Webinars and practical component this format implies an higher ratio of contact hours/ECTS, planning to achieve a robust student preparation in sleep field.

Teaching Format

The recent pandemic situation led Universities to adapt to a mixed educational program (in person and online based) and UCP was not an exception. Now we are better prepared to implement this kind of teaching program. The first edition should be in a b-learning format. The theoretical component should be an online based program (with very few presential classes) and the practical component should be in a face-to-face format. The b-learning modality allows students from abroad to participate, increasing the number of students, which can also be an advantage to international students. This proposal, of an Advanced/Post Graduate Sleep Course with an English b-learning format, including a transdisciplinary education evolving the Sleep Medicine and Sleep Sciences, intends to fill the gap in sleep education and to form skilled healthcare professionals with expertise to work in different areas and countries.

Study plan

Theoretical Component

Open Ceremony – Amélia Feliciano, Susana Falardo Ramos, Andreia Cardoso

Theories on the functions of sleep – Teresa Paiva

A1. Physiological basis of sleep I – Rita Canaipa

1.The neurophysiology and neurobiology of wakefulness, non-rapid eye movement (NREM) sleep and paradoxical (REM) sleep
2. Sleep and psychology (cognitive and emotional processes)

A2. Physiological basis of Sleep II - Sandra Marques

1. Effects of acute and chronic sleep deprivation
2. Sleep and dreaming
3. Gender differences in sleep
4. Sleep, Mind and Gut

Webinar A: invited speaker

B. Assessment of sleep disorders and diagnostic procedures – Vera Clérigo

1. Classification of sleep disorders
2. The clinical interview and clinical examination
3. Measuring: Monitoring sleep and wakefulness
4. Measuring: Monitoring sleep and wakefulness
5. Other tests and examinations
6. Biomarkers for disturbed sleep

Webinar B: invited speaker

C. Disturbances of Sleep I – Ana Santa Clara

Insomnia
1. Nosological classification, definitions, and epidemiology
2. Pathophysiology
3. Clinical picture and diagnosis
4. Comorbidities and special populations
5. Treatment
   5.1. Current guidelines
   5.2. Cognitive behavioural therapy for insomnia and other psychotherapeutic approaches
   5.3. Pharmacological treatment
   5.4. Evidence-based efficacy of alternative interventions

Sleep and psychiatry

1. Overview
2. Substance use disorders
3. Schizophrenia spectrum disorders
4. Affective disorders
5. Anxiety disorders
6. Other psychiatric disorders

7 Sleep and geriatrics

Ageing and sleep: Sleep in all stages of human development
Sleep in the elderly
Sleep disorders in the elderly

Webinar C: invited speaker

D. Disturbances of Sleep II – Carla Bentes

Hypersomnias of central origin

1. Nosological classification, definitions, and epidemiology
2. Etio-pathophysiology
3. Clinical picture and diagnosis
4. Treatment
5. Miscellaneous topics

Parasomnias

1. Nosological classification, definitions, and epidemiology
2. Pathophysiology and psychopathology
3. Clinical findings
4. Special populations and comorbidities
5. Treatment
6. Miscellaneous topics

Sleep and neurology I

1. Overview
2. Epilepsy

Webinar D (1): invited speaker

Sleep-related movement disorders – Ana Rita Peralta

1. Nosological classification, definitions, and epidemiology
2. Pathophysiology
3. Clinical picture and diagnosis
4. Comorbidities
5. Treatment

Sleep and neurology II

1. Parkinsonian Syndromes
2. Dementias
3. Stroke
4. Headache
5. Multiple sclerosis and other autoimmune disorders
6. Neuromuscular disorders

Webinar D (2): invited speaker

E. Disturbances of Sleep III – Amélia Feliciano

Sleep-related breathing disorders

1.Nosological classification, definitions, and epidemiology
2. Pathophysiology
3. Clinical picture and diagnosis
4. Obstructive sleep apnea and comorbidities: A specific focus on cardiometabolic comorbidities
5. Treatment

Sleep and pulmonology

1. Overview and pathophysiology
2. Obstructive sleep apnea and chronic obstructive pulmonary disease overlap
3. Sleep-disordered breathing and asthma
4. Sleep-disordered breathing and Interstitial Lung Disease (ILD)
5. Hypoventilation disorders

Webinar E: invited speaker

F. Disturbances of Sleep IV – Cátia Reis

Circadian rhythm sleep disorders

1. Nosological classification, definitions, and epidemiology
2. Pathophysiology
    2.1. Shift work
    2.2. Delayed sleep–wake phase disorder
    2.3. Non-24-hour sleep–wake disorder
3. Clinical picture and diagnosis
4. Comorbidities
5. Health risks
6. Treatment

Webinar F: invited speaker

G. Sleep in Pediatric ages – Rosário Ferreira

Pediatric sleep disorders

1. Chronic insomnia
2. Specific features of parasomnias
3. Obstructive sleep apnea
4. Sleep-related movement disorders
5. Narcolepsy
6. Sleep in neurodevelopmental disorders
7. Sleep and Education – academic performance

Webinar G: invited speaker

H. Sleep and other Medical Specialties – Richard Staats

Sleep and internal medicine

1. Cardiovascular diseases: Heart failure, coronary artery disease, arrhythmias, and hypertension
2. Endocrine diseases: Diabetes mellitus, diseases of the thyroid, acromegaly, polycystic ovarian syndrome
3. Nocturia
4. Cancer
5. Chronic fatigue and pain syndromes
6. Sleep in critically ill patients

Webinar H: Sleep and Pregnancy: Michele Cantwell

I: Dental Sleep Medicine – Susana Falardo Ramos

1. Clinical documentation (International Guidelines, Informed Consent)
2. Anamneses and Screening in Dental Sleep Medicine
    2.1 Oral Evaluation (Periodontal evaluation, Occlusal relationship, Dentistry Evaluation, Muscle palpation)
3. Patients' evaluation (postural, extra-oral and intra-oral observation)
4. Upper Airway (anatomic radiographic aspects and evaluation)
5. TMJ (general considerations and approach on TMJ and TMJ dysfunction) - Eduardo Vasquez
    5.1 – MAD for TMJ dysfunction (selection patient, treatment considerations and management)
6. COAT-Continue Opening Airway Therapy
    6.1 MAD (selection criteria, international nomenclature, types of MAD, medical indications, contra-indications, MAD delivery)
    6.2 MAD titration and screening control
    6.3 George Gauge Bite Registration (guidelines and clinical orientations)
        4.2.1 – Gauge registration and DISE coordination – Javier Vila Martin
    6.4 MAD Side-effects (management and control)
    6.5 New Advancements on MAD
7. Oral Comorbidities on OSA (observation, approach and management)
8. Sleep Bruxism
9. Pediatric Sleep (observation criteria's, risk factors, approach and management of OSA and Snore)
    9.1 Oral Observation and Anamneses

9.2 Cast models analyses and evaluation
9.3 Cephalometric analyses
9.4 Myofunctional Therapy (Muscle Evaluation, Indications and Exercises Therapy)
9.5 Treatment approach and management

10. Orthognathic Treatment (Maxilla-mandibula Surgical approach, Management and Outcomes, Marpe-Baume maxillary expansion and UAW outcomes) – Armando Dias da Silva
11. Hypoglossal Nerve Stimulation (patient`s selection, intraoral analysis, dentist role)– Jacqueline Liasson
12. Combine Therapy CPAP-MAD (indications, management, and outcomes)

Webinar I (1): international speaker Francesca Milano

Webinar I (2): Eduardo Vasquez

Webinar I (3): Javier Vila Martin

Webinar I (4): Jacqueline Liasson

J. Sleep and Pharmacology – Frederico Simões Couto

1.Effects of various pharmacological treatments on sleep
2. Other substances (caffeine, tobacco, drugs) and sleep

L. Sleep and Nutrition – Paula Ravasco

Webinar L: invited speaker

M. Sleep and Exercise – Raquel Silva

Webinar M: Sleep and Aesthetic Medicine invited speaker

N. Societal, economic, organizational, and research aspects – Cátia Reis

1. Demographic and socioeconomic aspects of sleep disorders
2. Forensic aspects of sleep medicine
3. Organization of Sleep Medicine Centers
4. Training initiatives in sleep medicine
5. Shift work, sleep, and sleepiness

O. Sleep and Research – Nélio Veiga

1.Research design and quantitative methods
2.Writting an article

Closing Ceremony – Amélia Feliciano, Susana Falardo Ramos, Andreia Cardoso

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Practical Component

The practical component is specific for each group of professionals. Although students from one group may assist practical specific sessions of another group (optional).

Medical Group – Practical Component

1(∗∗∗). Sleep Lab
2(∗∗∗). PSG scoring EEG Adults
3. Questionnaires CBT, practical cases
4(∗∗). MLST and MWT practical cases
5(∗∗∗). PSG scoring respiratory events and movement events
6(∗∗). Other tests: capnography, oximetry, and respiratory function tests
7(∗∗∗). Sleep and ventilation: adaptation and follow-up
8(∗∗). Actigraphy
9(∗∗∗). PSG scoring EEG sleep Studies Pediatrics
10(∗). Interpretation of PSG, HSAT, and biological fluids
11. Dental Medicine
12(∗∗∗). Sleep in Clinical Practice I
13(∗∗∗). Sleep in Clinical Practice II (Fellowship)
14(**) Meet the Expert in Sleep Lab

Technicians Group - Practical Component

1(∗∗∗). Sleep Lab
2(∗∗∗). PSG scoring EEG Adults
3(∗∗). MLST and MWT practical cases
4.Epilepsy, Parasomnias and PSG
5(∗∗∗). PSG scoring respiratory events and movement events
6(∗∗). Other tests: capnography, oximetry, and respiratory function tests
7(∗∗∗). Sleep and ventilation: adaptation and follow-up
8(∗∗). Actigraphy
9(∗∗∗). PSG scoring EEG sleep Studies Pediatrics
10(∗∗∗). Sleep in Clinical Practice I
11(∗∗∗). Sleep in Clinical Practice II (Fellowship)
12(**) Meet the Expert in Sleep Lab

Medical Dentists Group – Practical Component

1(∗∗∗). Sleep Lab
2(∗∗∗). PSG scoring EEG Adults
3(∗∗∗). PSG scoring respiratory events and movement events
4(∗∗∗). PSG scoring EEG sleep Studies Pediatrics
5(∗∗∗). Sleep and ventilation: adaptation and follow-up
6. Dental Sleep Medicine
    Myofunctional Therapy and Myofunctional devices
    Occlusal registration bite with George Gauge and Intra-oral impressions (silicone or scanner)
    Delivery and MAD adjustments
7(∗). Interpretation of results PSG, HSAT, and biological fluids
8(∗∗∗). Sleep in Clinical Practice I
9(∗∗∗). Sleep in Clinical Practice II (Fellowship)
10(***) Meet the Expert in Sleep Lab

Legend

(∗∗∗) – same session for the 3 groups

(∗∗) – same session for medical and technician group

(∗) - same session for medical and medical dentist group

Theoretical Component

Content	Professor	Duration	Advanced Sleep Course	Post Graduated Sleep Course
Open Ceremony	Amélia Feliciano, Susana Falardo, Andreia Cardoso	2h	x	x
Theories on the functions of sleep	Teresa Paiva		x	x
A1. Physiological basis of sleep I	Rita Canaipa	4h	x	x
A2. Physiological basis of Sleep II	Sandra Marques	(6)4h	x	x
Webinar A	Invited speaker	2h	NA	x
B. Assessment of sleep disorders and diagnostic procedures	Vera Clérigo	4h	X	x
Webinar B	Invited speaker	2h	NA	x
C. Disturbances of Sleep I	Ana Santa Clara		X	x
Insomnia		4h	X	x
Sleep and psychiatry		4h	X	x
Webinar C	Invited speaker	2h	NA	x
D. Disturbances of Sleep II	Carla Bentes		X	x
Hypersomnias of central origin		4h	X	x
Parasomnias		4h	X	x
Sleep and neurology I		2h	X	x
Webinar D (1)	Invited speaker	2h	NA	x
Sleep-related movement disorders	Ana Rita Peralta	4h	X	x
Sleep and neurology II		4h	X	x
Webinar D (2)	Invited speaker	2h	NA	x
E. Disturbances of Sleep III	Amélia Feliciano		X	x
Sleep-related breathing disorders		4h	X	x
Sleep and pulmonology		4h	X	x
Webinar E	Invited speaker	2h	NA	x
F. Disturbances of Sleep IV	Cátia Reis	4h	X	x
Webinar F	Invited speaker	2h	NA	x
G. Sleep in Pediatric ages	Rosário Ferreira	14h	X	x
Webinar G	Invited speaker	2h	NA	x
H. Sleep and other Medical Specialties	Richard Staats	4h	X	x
Webinar H: Sleep and Pregnancy	Michele Cantwell	2h	NA	x
I: Dental Sleep Medicine	Susana Falardo	36h	X	x
Webinar I (1)	Francesca Milano	2h	NA	x
Webinar I (2)	Eduardo Vasquez	2h	NA	x
Webinar I (3)	Javier Vila Martin	2h	NA	x
Webinar I (4)	Jacqueline Liasson	2h	NA	x
J. Sleep and Pharmacology	Frederico Couto	4h	X	x
L. Sleep and Nutrition	Paula Ravasco	4h	X	x
Webinar L	Invited speaker	2h	NA	x
M. Sleep and Exercise	Raquel Silva	6h	X	x
Webinar M: Sleep and Aesthetic Medicine	Invited speaker	2h	NA	x
N. Societal, economic, organizational, and research aspects	Cátia Reis	4h	x	x
O. Sleep and Research	Nélio Veiga	4h	x	x
Closing Ceremony		2h	x	x
Total of contact hours			**130**	**160**

Practical Component

Content	Professor	Advanced Sleep Course	Post Graduated Sleep Course
Medical Group (and other health care professionals)			
1. Sleep Lab	Dina Grencho	2h	4h
2. PSG scoring EEG Adults	Andreia Cardoso	4h	8h
3. Questionnaires CBT, practical cases	Ana Santa Clara	NA	4h
4. MLST/MWT practical cases	André Alves	2h	4h
5. PSG scoring respiratory and movement events	Sofia Rebocho	2h	4h
6. Other: capnography, oximetry, and respiratory function tests	Andreia CArdoso	NA	2h
7. Sleep and ventilation – adaptation and follow-up	Helder Simão/ Célia Durães	4h	8h
8. Actigraphy	Cátia Reis	2h	4h
9. PSG scoring EEG sleep Studies Pediatrics	Carlos Teixeira	4h	6h
10. Interpretation of PSG, HSAT, and biological fluids	Amélia Feliciano	2h	4h
11. Dental Medicine	Susana Falardo	NA	8h
12. Sleep in Clinical Practice I	Amélia Feliciano	8h	8h
13. Sleep in clinical Practice II (Fellowship)	Amélia/Andreia	NA	24h
14. Meet the Expert in Sleep Lab	Andreia Cardoso	NA	12h
Total of contact hours		**30h**	**100h**

Content	Professor	Advanced Sleep Course	Post Graduated Sleep Course
Technicians Group			
1. Sleep Lab	Dina Grencho	2h	4h
2. PSG scoring EEG Adults	Andreia Cardoso	6h	12h
3. MLST/MWT practical cases	André Alves	2h	4h
4.Epilepsy, Parasomnias and PSG	Hugo Ferreira	NA	6h
5. PSG scoring respiratory and movement events	Sofia Rebocho	2h	8h
6. Other: capnography, oximetry, and respiratory function tests	Andreia Cardoso	NA	2h
7. Sleep and ventilation: adaptation and follow-up	Helder Simão/ Célia Durães	4h	8h
8. Actigraphy	Cátia Reis	2h	4h
9. PSG scoring EEG sleep Studies Pediatrics	Carlos Teixeira	4h	8h
10. Sleep in Clinical Practice I	Amélia Feliciano	8h	8h
11. Sleep in clinical Practice II (Fellowship)	Amélia/Andreia	NA	24h
12. Meet the Expert in Sleep Lab	Andreia Cardoso	NA	12h
Total of contact hours		**30h**	**100h**

Content	Professor	Advanced Sleep Course	Post Graduated Sleep Course
Medical Dentists Group			
1. Sleep Lab	Dina Grencho	2h	2h
2. PSG scoring EEG Adults	Andreia Cardoso	2h	4h
3. PSG scoring respiratory events and movement events	Sofia Rebocho	2h	4h
4. PSG scoring EEG sleep Studies Pediatrics	Carlos Teixeira	2h	4h
5. Sleep and ventilation: adaptation and follow-up	Helder Simão/ Célia Durães	4h	8h
6. Dental Sleep Medicine	Susana Falardo	8h	30h
7. Interpretation of PSG, HSAT and biological fluids	Amélia Feliciano	2h	4h
8. Sleep in Clinical Practice I	Amélia Feliciano	8h	8h
9. Sleep in Clinical Practice II (Fellowship)	Amélia/Andreia	NA	24h
10. Meet the Expert in Sleep Lab	Andreia Cardoso	NA	12h
Total of contact hours		**30h**	**100h**

Professors

Coordination Team

Amélia Feliciano

Susana Falardo Ramos

Andreia Cardoso

Other Professors (by alphabetical order)

Ana Rita Peralta

Ana Santa Clara

André Alves

Armando Dias da Silva

Carla Bentes

Carlos Teixeira

Cátia Reis

Célia Durães

Dina Grencho

Frederico Simões Couto

Hélder Simão

Hugo Ferreira

Nélio Veiga

Paula Ravasco

Raquel Silva

Richard Staats

Rita Canaipa

Rosário Ferreira

Sandra Marques

Sofia Rebocho

Teresa Paiva

Vera Clérigo

International Speakers (by alphabetical order)

Eduardo Vasquez

Francesca Milano

Javier Vila Martin

Michelle Cantwell

Jacqueline Liasson

The invitation will be sent to others after the approval of this proposal.

Teaching and Evaluation Methods

Teaching Methods

B-Learning Format: theoretical component by classes online and practical component by face-to-face sessions.

Evaluation Methods

Educational Format 1 and 2

For theoretical component the student will perform a multiple choice Test. The pass mark is considered above 65%.

For practical component the student will evaluate clinical/practical cases related with the respective area of expertise (physician, dental physician, technologist).

GPA Calculus

The final grade will be obtained by the media of the theoretical and practical component.

Admissions

Conditions

Educational Format 1 – theoretical and practical component (online lectures and face-to-face practical sessions).

Educational Format 2 – theoretical component (online lectures and Webinars and face-to-face practical sessions)

Selection and Ranking Requirements

Students will be selected based on academic formation and professional experience.

Applications and Registrations

Further information in Admission Office.

Vacancies

Minimum 20 students and Maximum 100 students, for each educational format.

Tuition Fee

Further information in Admission Office.

Place

Catholica Medical School. Although, eventually a few practical sessions can take place in a Sleep Lab or Medical Dentist Unit for real life teaching purposes.