MAS in Sleep Medicine – Study Plan

2023-01-31

The MAS in Sleep Medicine Course is a university study program leading to the award of the title "Master of Advanced Studies in Sleep Medicine, University of Bern, Università della Svizzera italiana (MAS SM Unibe USI)", as laid out in the Regulations governing the MAS in Sleep Medicine.

1. Course objectives

About

Sleep medicine is a rapidly growing field as more and more people suffer from sleep problems and related disorders. In order to meet the increasing demand for specialists in this field, this course offers local and international students, researchers and professionals operating or planning to operate in the field of Sleep, Consciousness and Related Disorders the opportunity to complement their core competences with a formal deepening and broadening of their knowledge and skills.

Competence objectives

The course competences are acquired in a MAS course with several modules. At the end graduates will:

1. know the structural and functional basis of sleep regulation, related disorders and consciousness regulation,
2. know the fundamentals of sleep medicine,
3. gain deep theoretical and practical expertise in the diagnosis and therapy of sleep disorders and in selected areas of sleep medicine,
4. general practical and theoretical knowledge of sleep scoring.
5. as part of a practice-oriented diploma thesis they demonstrate their capability of acquiring scientific literature and transferring knowledge into practice in form of at least one publishable text,
6. according to their professional background they are capable of managing a unit for sleep medicine and to assume executive functions.

2. Duration, outcomes and objectives of the modules

Duration and scope

The duration of the course is 2.5 years and consists of online modules, Summer School hybrid, Winter School hybrid, internship, MAS-thesis) and equals 60 ECTS-Credits (ca. 1500 study hours).

The details of the course are described in the annex of this study plan.

Assessments

3. Performance assessment

The performance assessment includes the following elements:

a. Course attendance to the required extent,

b. Performance assessment from all modules according to Art. 16 in the "Regulations governing the MAS Program in Sleep Medicine". The details of the assessments are described in the annex of this study plan.

4. Final regulations

Entry into force

The present plan shall enter into force on 2023-04-01.

2023-01-31

Released by the program management:

Prof. Dr. med. Claudio Bassetti

2023-03-15

Adopted by the Faculty of Medicine, University of Bern

The Dean

Prof. Dr. med. Claudio Bassetti

Annex – Study Plan of the MAS in Sleep Medicine

Module 1 **Basic Sleep Medicine**

ECTS	4 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 100 hrs.
Assessment	Multiple choice test	**Req. attendance**	100%
Learning outcomes	Graduates will • learn the basics about Sleep Medicine • be able to analyse and explain the definition of sleep and sleep regulations • be able to assess sleep, vigilance and circadian rhythms		
Learning objectives	• Sleep-wake cycle, consciousness and their disorders • Circadian rhythms • International classification of sleep disorders • Strategies in sleep research • Sleep regulations • Sleep and digitisation		
Learning and teaching methods	• Online platform with 9 online lectures & papers • Self study, reading, preparation • Online live meeting Q&A, case discussion and deepening of knowledge		
Prerequisites	None		
Teaching language	English		

Module 2 **Sleep Medicine Summer School**

ECTS	3 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 75 hrs.
Assessment	Multiple choice test Essay	**Req. attendance**	80%
Learning outcomes	• This module is organised in cooperation with the European Sleep Foundation. The detailed program is presented on the website www.europeansleepfoundation.ch.		
Learning objectives	• Details on www.europeansleepfoundation.ch		
Learning and teaching methods	• 1 week Seminar in Lugano/Switzerland (hybrid for students that are not able to travel) • Q&A sessions and case discussion • Seminar discussions		
Prerequisites	None		
Teaching language	English		

Module 3

Interdisciplinary Approach

ECTS	4 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 100 hrs.
Assessment	Multiple choice test	**Req. attendance**	100%
Learning outcomes	Graduates will • gain more in-depth knowledge about Sleep Medicine • understand the link between sleep and gender medicine, sport, aging, covid, nursery		
Learning objectives	• Circadian, sleep and health • Sleep and sport • Sleep and gender medicine • Sleep and aging and lifespan • Sleep and covid • Sleep and nursery • Sleep and consciousness		
Learning and teaching methods	• Online platform with 8 online lectures & papers • Self study, reading, preparation • Online live meeting Q&A and case discussion • Interaction with peers on Ilias: make a post related to this module and comment on at least 1 peer-contribution		
Prerequisites	None		
Teaching language	English		

Module 4

Sleep Medicine Winter School

3 ECTS-Credits, several lectures (hybrid), 1 multiple choice test

ECTS	3 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 75 hrs.
Assessment	Multiple choice test Essay	**Req. attendance**	80%
Learning outcomes	• This module is organised in cooperation with the European Sleep Foundation. The detailed program is presented on the website www.europeansleepfoundation.ch.		
Learning objectives	• Details on www.europeansleepfoundation.ch		
Learning and teaching methods	• 1 week Seminar in person, place to be announced (hybrid for students that are not able to travel) • Q&A sessions and case discussion • Seminar discussions		
Prerequisites	None		
Teaching language	English		

Module 5 **Basic Science**

ECTS	5 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 125 hrs.
Assessment	Multiple choice test Presentation	**Req. attendance**	100%
Learning outcomes	Graduates will • Gain advanced insights with a focus on clinical topics		
Learning objectives	• Network neurophysiology, physiology-pathology • Sleep wake cycle, circadian clocks • Neurobiology of the consciousness system • Epilepsy and chronobiology • Animal model of narcolepsy, animal model of RBD		
Learning and teaching methods	• Online platform with 10 online lectures & papers • Self study, reading, preparation • Online live meeting Q&A and case discussion • Webinar with students presenting a prepared work & discussion		
Prerequisites	None		
Teaching language	English		

Module 6 **Primary Sleep Disorders**

ECTS	6 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 150 hrs.
Assessment	• Multiple choice test	**Req. attendance**	100%
Learning outcomes	Graduates will • gain advanced insights with a focus on clinical topics		
Learning objectives	• Insomnia, Hypersomnia, Parasomnia • Pediatric disorders • Sleep-related movement disorders • RLS/PLMS clinical aspects and treatment • Sleep apnea • Physiology and phenomenology of dreaming • Disorders of consciousness		
Learning and teaching methods	• Online platform with 13 online lectures & papers • Self study, reading, preparation • Online live meeting Q&A and case discussion		
Prerequisites	None		
Teaching language	English		

Module 7

Objective Sleep Measures

ECTS	4 ECTS credit points (incl. self-study and test)	**Duration**	Approx. 100 hrs.
Assessment	• Multiple choice test • Presentation	**Req. attendance**	100%
Learning outcomes	Graduates will • gain in-depth theoretical and practical insights into sleep scoring		
Learning objectives	• Imaging during sleep (fMRI, PET, NIRS) • Electrical activity during sleep (EEG, HD-EEG, MEG, LFP, Unit recordings • Objective measurements of sleep in the sleep laboratory • Introduction to sleep scoring • Introduction of RemLogic and sleep scoring • Practical study with remote access to RemLogic		
Learning and teaching methods	• Online platform with 6 online lectures • Self study, reading, preparation • Project work with RemLogic software • Online live meeting Q&A and case presentation		
Prerequisites	None		
Teaching language	English		

Module 8

Specialization I

ECTS	5 ECTS credit points (incl. self-study, test)	**Duration**	Approx. 125 hrs.
Assessment	• Multiple choice test • Forum post	**Req. attendance**	100%
Learning outcomes	Graduates will • Dive deeper in the previously studied themes		
Learning objectives	• Automated sleep scoring • Oscillatory analysis for comatose patient • Unobtrusive tele-monitoring of sleep and daily activities • Sleep clock and society • Sleep and electromagnetic fields • History of sleep and sleep research • Sleep and brain plasticity, timing metabolism		
Learning and teaching methods	• Online platform with 9 online lectures & papers • Self study, reading, preparation • Online live meeting Q&A and case presentation		
Prerequisites	None		
Teaching language	English		

Module 9

Specialization II

ECTS	4 ECTS credit points (incl. self-study, test and presentation)	**Duration**	Approx. 100 hrs.
Assessment	Multiple choice test Presentation	**Req. attendance**	100%
Learning outcomes	Graduates will • work on their specialization and choose 3 of below topics		
Learning objectives	• Topic 1: Disorders of consciousness • Topic 2: Sleep and pulmonology • Topic 3: Sleep and psychiatry • Topic 4: Sleep and paediatrics • Topic 5: Sleep and neurology • Topic 6: Advanced sleep scoring		
Learning and teaching methods	• Online platform with online lectures & papers • Self study, reading, preparation • Presentation • Online live meeting Q&A and case presentation		
Prerequisites	None		
Teaching language	English		

Module 10

Internship Sleep Laboratory

ECTS	4 ECTS credit points (internship and report)	**Duration**	Approx. 100 hrs. 2-4 weeks
Assessment	Report	**Req. attendance**	100%
Learning outcomes	Graduates will • gain practical insights in a sleep lab at one of our Partner Universities		
Learning objectives	Practical project where the students define the goal together with the responsible of the Partner University / Sleep Lab		
Learning and teaching methods	• Working at a sleep lab • Writing a report		
Prerequisites	None		
Teaching language	English		

Module 11 **MAS-Thesis**

ECTS	15 ECTS credit points	**Duration**	Approx. 375-450 hrs.
Assessment	MAS-thesis		
Learning outcomes	Graduates will • be dedicated to research and to write a MAS-thesis • 12'000 – 20'000 words		
Learning objectives	• A pool of topics and mentors will be provided to the students • Every student is free to choose a topic and a specialist in the field of sleep medicine (subject to approval by the MAS program lead)		
Learning and teaching methods	• Research and writing a thesis • Self study and research		
Prerequisites	None		
Teaching language	English		

Module 12 **Transferable Skills**

ECTS	3 ECTS credit points	**Duration**	Approx. 75 hrs.
Assessment	Multiple choice test	**Req. attendance**	100%
Learning outcomes	• Graduates willGain knowledge in management and leadership		
Learning objectives	• Healthcare leadership training •		
Learning and teaching methods	• Online platform • Online lectures & papers		
Prerequisites	None		
Teaching language	English		