2023-2025

INTERNATIONAL MASTER IN SLEEP MEDICINE
MSc in sleep-wake-circadian physiology, consciousness and related disorders
Certificate of Advanced Studies (CAS)
The CAS provides basic tools, skills and competences to understand sleep physiology, diagnosis and treatments of sleep and consciousness disorders. The program covers a wide range of topics such as the regulation and function of sleep, sleep research methods as well as first looks at clinical topics like insomnia, hypersomnia, parasomnia and other disorders.

Diploma of Advanced Studies (DAS)
The DAS allows the students to deepen their knowledge of the disorders introduced in the CAS while also offering a holistic look into further clinical topics as well as disorders of consciousness. The DAS also provides in-depth theoretical and practical insights into sleep scoring in a self-study mode.

Master of Advanced Studies (MAS)
Building up on the CAS and the DAS programs, the modules of the MAS offer more specific learning contents based on the student’s personal preferences. In addition each participant will be able to gain international working experience by completing a four weeks (or longer) internship in one of our partner labs all around the world.

For further information please visit: www.asc.unibe.ch
or contact info@asc.unibe.ch

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Who can apply
Eligible for the Program are applicants with the following backgrounds:
- medical degree with or without specialization
- psychologists and neuropsychologists
- candidates with a bachelor degree in a biology and/or health related disciplines
- candidates with a Master degree in natural science or engineering

Program overview
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Fees and highlights
Start
January 2023

Application Deadline
December 2022

Credits
CAS | 10 ECTS
DAS | 30 ECTS
MAS | 60 ECTS

Basic knowledge
- Online module
- Sleep Medicine
- Summer School
- Sleep Science
- Winter School
- CAS thesis

Advanced knowledge
- Online modules
- Sleep Scoring module
- DAS thesis

Specialization
- Online modules
- (incl. advanced Sleep Scoring)
- Hands-on module
- Transferable skills
- MAS thesis

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### MODULE 1: Basics sleep medicine

**4 ECTS (mandatory)**

- Sleep-Wake cycle, consciousness and their disorders: An Introduction
  - C. Bassetti
- How is vigilance assessed?
  - R. Khatami
- How is sleep assessed?
  - L. Ferini-Strambi
- Circadian rhythms and their assessment
  - C. Garbazza
- International Classification of Sleep Disorders
  - M. Manconi
- Strategies in Sleep Research
  - A. Adamantidis
- Sleep and Circadian rhythm
  - M. Schmidt
- Sleep regulation
  - P. Luppi
- Sleep and digitisation
  - A. Tzovara

### MODULE 2: Sleep Science Winter School

**3 ECTS (mandatory)**

Visit the official site: [www.europeansleepfoundation.ch/schools-and-masters/sleep-medicine-summer-school/](http://www.europeansleepfoundation.ch/schools-and-masters/sleep-medicine-summer-school/)

### MODULE 3: Sleep Medicine Summer School

**3 ECTS (mandatory)**

Visit the official site: [www.europeansleepfoundation.ch/schools-and-masters/sleep-medicine-summer-school/](http://www.europeansleepfoundation.ch/schools-and-masters/sleep-medicine-summer-school/)

### MODULE 4: Interdisciplinary approach

**3 ECTS (mandatory)**

- Circadian, sleep and health
  - H. van Donge/A. Amidi
- Sleep and sport
  - D. Enache
- Sleep and gender medicine
  - M. Levy Anderson
- Sleep and aging and lifespan
  - H. Fröhlich
- Sleep and covid
  - C. Blume
- Sleep and nursery
  - Capecchi/S. Stranges
- Sleep Health
  - C. Bassetti
- Sleep and Consciousness
  - S. Laureys

### MODULE 4: Objective sleep measures

**4 ECTS**

- Imaging during sleep (fMRI, PET, NIRS)
  - P. Maquet
- Electrical activity during sleep (EEG, HD-EEG, MEG, LFP, Unit recordings)
  - R. Huber
- Objective measurements of sleep in the sleep laboratory
  - F. Piazza
- Introduction of Sleep Scoring
  - A. Castelnuovo
- Practical study with remote access to RemLogic
  - A. Rousac

### MODULE 5: Primary sleep disorders

**6 ECTS**

- Circadian rhythm sleep-wake disorders
  - C. Garbazza
- Sleep-Related movement disorders
  - A. Heidbreder
- RLS/PLMS: clinical aspects and treatment
  - M. Manconi
- Parasomnias and state dissociations
  - L. Nobili
- REM parasomnias and treatment
  - P. Barghitas
- Treatment of insomnia: pharmacological and psychotherapeutic approach
  - D. Remann

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**CAS Sleep Medicine**

- 10 ECTS | 10 months

In all modules, interactive in-depth courses (such as journal club, webinar, case discussion, FAQ session ec.) are offered.

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**DAS Sleep Medicine**

- 30 ECTS | 22 months

In all modules, interactive in-depth courses (such as journal club, webinar, case discussion, FAQ session ec.) are offered.
### MODULE 1: Specialization | 4 ECTS

**Latest approaches to automated sleep scoring**
- F. Faraci

**Oscillatory analysis for comatose patient outcome prediction**
- M. De Lucia

**Unobtrusive telemonitoring of sleep and daily activities**
- T. Nei

**Sleep clock and society**
- T. Roenneberg

**Sleep and electromagnetics fields**
- P. Achermann

**A history of sleep and sleep research**
- H. Ahlheim

**Functions of sleep and clocks**
- T. Roenneberg
- C. Robles
- M. Schmidt
- M. Blumberg
- C. Cirelli
- S. Aton

**Sleep and brain plasticity**
- A. Adamantidis

**Circadian clocks, timing metabolism**
- S. Brown

### TOPIC 1 | Disorders of Consciousness

**Coma: definition, anatomy, pathophysiology**
- A. Rossetti

**The neurology of consciousness: lessons from neuro-imaging in coma & related**
- S. Laureys

### TOPIC 2 | Sleep and pulmonology

**New pathophysiological concepts, phenotyping and clinical implications in obstructive sleep apnoea**
- W. Randerath

**Insomnia and Mental Health**
- D. Riemann

**Sleep in patients with mental disorders**
- T. Paunio

### TOPIC 3 | Sleep and psychiatry

**Treatment of chronic insomnia in children and adolescents with neurodevelopmental disorders**
- O. Bruni

**Sleep and circadian rhythmicity in ADHD**
- M. Lecendreux

### TOPIC 4 | Sleep and pediatrics

**Sleep and circadian rhythmicity in ADHD**
- M. Lecendreux

### TOPIC 5 | Sleep and neurology

**Sleep and Stroke**
- C. Bassetti

**Effect of sleep on CSF Amyloid-Beta**
- B. Lucey

**Local sleep and Alzheimer’s disease**
- B. Mander

**Risk and predictors of dementia and parkinonism in idiopathic REM sleep behaviour disorder**
- A. Iranzo

**Treatment approaches for sleep disturbances in Parkinson disease**
- A. Videnovic

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### MODULE 3: Internship Sleep Laboratory | 3 ECTS

**Practical internship for 2 - 4 weeks**

### MODULE 4: MAS-THESIS | 15 ECTS

### MODULE 5: Transferable skills | 3 ECTS

**Healthcare Leadership training**
International Faculty

- Antoine Adamantidis (Switzerland)
- Panagiotis Bargiotas (Cyprus)
- Claudio Bassetti (Switzerland), Chair
- Thomas Berger (Switzerland)
- Jan Born (Germany)
- Steven Brown (Switzerland)
- Alexandre Datta (Switzerland)
- Leja Dolenc-Groselj (Slovenia)
- Francesco Fanfulla (Italy)
- Luigi Ferini-Strambi (Italy)
- Russell Foster (UK)
- Flavio Fröhlich (USA)
- Martin Hatzinger (Switzerland)
- Jan Hedner (Sweden)
- Raphaël Heinzer (Switzerland)
- Reto Huber (Switzerland)
- Alex Iranzo (Spain)
- Ulf Kallweit (Germany)
- Ramin Khatami (Switzerland)
- Lyudmila Korostovzeva (Russia)
- Gert-Jan Lammers (Netherlands)
- Steven Laureys (Belgium)
- Claudio Liguori (Italy)
- Pierre-Hervé Luppi (France)
- Mauro Manconi (Switzerland)
- Pierre Maquet (Belgium)
- Marcello Massimini (Italy)
- Dafin Muresanu (Romania)
- Christoph Nissen (Switzerland)
- Allan Pack (USA)
- Teresa Paiva (Portugal)
- Tiina Paunio (Finland)
- Dirk Pevernagie (Belgium)
- Fabio Pizza (Italy)
- Jean-Louis Pépin (France)
- Giuseppe Plazzi (Italy)

For further information please contact info@asc.unibe.ch

Partner Universities

- Università Vita-Salute San Raffaele, Italy
- Université Grenoble Alpes, France
- University of Ljubljana, Slovenia
- University of Freiburg, Germany
- University of Tübingen, Germany
- University of Witten/Herdecke, Germany
- University Hospital of Liège, Belgium
- University of Ghent, Belgium
- Almazov National Medical Research Center, Russia
- Carol Davila University of Medicine and Pharmacy, Romania
- Iuliu Hațieganu University, Cluj-Napoca, Romania
- FUCS University, Colombia
- University of Cyprus