



Università  
della  
Svizzera  
italiana

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UNIVERSITÄT  
BERN

# CAS Certificate of Advanced Studies in Sleep, Consciousness and Related Disorders

Academy of Sleep and Consciousness (ASC)

2018-2019



Ente Ospedaliero Cantonale



European Sleep Foundation

## Why this CAS?

Sleep is a fascinating and still mysterious state of consciousness, which is mandatory for the metabolic balance of all the living beings. The number of people suffering from disorders of sleep and consciousness is extraordinary high.

The consequences of sleep deprivation and sleep disorders include impaired physical and cognitive functions, social and emotional burden, significant decrease in performance and productivity and a critical financial load on the health system.

Thus, there is an urgent need for highly qualified and trained experts in sleep physiology and medicine. To meet this demand, the University of Bern and the Università della Svizzera italiana (USI) in collaboration with Ente Ospedaliero Cantonale (EOC) and the University Hospital in Bern (Inselspital), have developed with the support of the European Sleep Foundation (ESF) and the patronage of the Swiss Sleep Society (SGSSC) and European Sleep Research Society (ESRS) a postgraduate advanced course (CAS) in sleep, consciousness and related disorders.

## Learning Objective

The educational program provides cutting-edge scientific and up-to-date clinical knowledge, as well as tools, skills and competences to understand sleep physiology, as well as diagnosis, treatment and managing of patients with disorders of sleep and consciousness.

At the end of the course you will:

- know the physiological base of sleep-wake cycle and consciousness states;
- understand the basic of sleep medicine;
- diagnose and differentiate the main categories of sleep-wake and related disorders;
- be familiar with the essential diagnostic tools and treatment approaches;
- know how to do a systematic literature research and qualitatively and quantitatively summarize and present existing studies.

Students that successfully complete the study program will be awarded the title of *Certificate of Advanced Studies in Sleep, Consciousness and Related Disorders, Universität Bern, Università della Svizzera italiana (CAS SCD Unibe USI)*.

## Program Overview

The program offers a variety of efficient learning methods, such as face-to-face lectures, seminars and remote online learning. English is the official language of instruction. The program is based on four different modules sustained by an international faculty of scientists and experts in the fields of sleep medicine/research, consciousness and related disorders. Starting with module 1 in October 2018 the course will end with module 4 in July 2019.

## Modules

Module 1	Module 2	Module 3	Module 4
Provides a basic insight into sleep and consciousness in a self-study mode. It analyzes and explains the definition of sleep, how sleep can be measured, sleep regulations and leads into more clinical topics related to sleep.	Deepens the understanding of the basic scientific knowhow, ensures that all questions from the self-study phase can be clarified and addresses more advanced scientific topics such as regulation and function of sleep, circadian rhythms of sleep, and methods of sleep/consciousness research.	Provides the knowhow of systematical literature research (systematic reviews) and qualitatively and quantitatively summarizing of existing studies. The student will also learn how to read scientific literature and will be capable to understand and summarize it.	Deepens the basic clinical knowledge about the main sleep disorders and provides further in-depths expertise in managing the diagnosis and treatment of disorders.

## Lead Scientific committee

- Prof. Claudio Bassetti
- Prof. Mauro Manconi
- Prof. Antoine Adamantidis
- Prof. Kaspar Schindler

## Module 1

### Lecture series / e-learning

Provides a basic insight into sleep and consciousness in a self-study mode. It analyzes and explains the definition of sleep, how sleep can be measured, sleep regulations and leads into more clinical topics related to sleep. The module will start with a face-to-face kick-off seminar in Bern, followed by e-learning sessions, which are structured in basic and clinical sessions of recorded lectures and 6 sessions of more advanced topics.

#### Duration

50–60 hours of self-study

#### Credits

2 ECTS

#### Location

Bern / self-study

#### Exams

The examination will consist in multiple-choice questions, which the student needs to pass before next topics will be accessible.

## Courses

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### Basics

- Kick-off Sleep Symposium
- Sleep-wake cycle, vigilance and consciousness: An introduction
- How is sleep assessed? Electroencephalography (EEG), polysomnography (PSG)
- How is vigilance assessed? (MWT, MSLT, vigilance tests)
- Circadian rhythms and their assessment
- Sleep Regulation

### Clinical

- International classification of sleep disorders
- Pediatric sleep disorders
- Neurology and sleep disorders
- Sleep disordered breathing
- Psychiatry and sleep disorders

### More advanced topics

- Neuronal physiology (basic)
- Network physiology-pathology (basic)
- Network physiology-pathology (human)
- Circadian physiology (basic)
- Genetic of sleep and sleep disorders
- Parasomnias and state dissociations

## Module 2

### Sleep Science Winter School in Wengen

Deepens the understanding of the basic scientific knowhow and addresses more advanced scientific topics such as regulation and function of sleep, circadian rhythms of sleep, and methods of sleep/consciousness research. The lectures seminar will be held in Wengen over the course of 4 days (Sunday to Wednesday).

#### Duration

50–60 hours of self-study

#### Credits

2 ECTS

#### Location

Wengen

#### Exams

The examination will consist in multiple-choice questions.

## Courses

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### Key Lectures

- The regulation of sleep
- The function of sleep
- Circadian rhythms
- Sleep & Consciousness
- Methods in sleep research - basic
- Methods in sleep research - human

### Module 3

#### **CAS Thesis**

Consists in 75-90 hours (3 ECTS) dedicated to research and writing a CAS-Thesis. It provides therefore the knowhow of systematical literature research (systematic reviews) and qualitatively and quantitatively summarizing of existing studies. The student will also learn how to read scientific literature and will be capable to understand and summarize it.

A pool of topics and mentors will be provided to the students; nevertheless, every student is free to choose a topic and specialist in the field of sleep medicine, subject to approval by the CAS Program lead. It is highly recommended to choose a comparative thesis.

**Duration**  
75–90 hours

**Credits**  
3 ECTS

### Module 4

#### **Sleep Medical Summer School in Lugano**

Deepens the basic clinical knowledge about the main sleep disorders and provides further in-depths expertise in managing the diagnosis and treatment of disorders. The Summer School will be held in Lugano and will take place in July for one entire week. The module will combine theoretical lessons in the mornings, case discussions, and practical exercises in the afternoons.

**Duration**  
75–90 hours

**Credits**  
3 ECTS

**Location**  
Lugano

**Exams**  
The examination will consist in multiple-choice questions.

### **Courses**

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#### **Key Topics**

- Physiology and Chronobiology
- Insomnia and circadian disorders
- Hypersomnia and neurological sleep disorders
- Movement disorders and parasomnia and epilepsy
- Respiratory disorders

## Time schedule

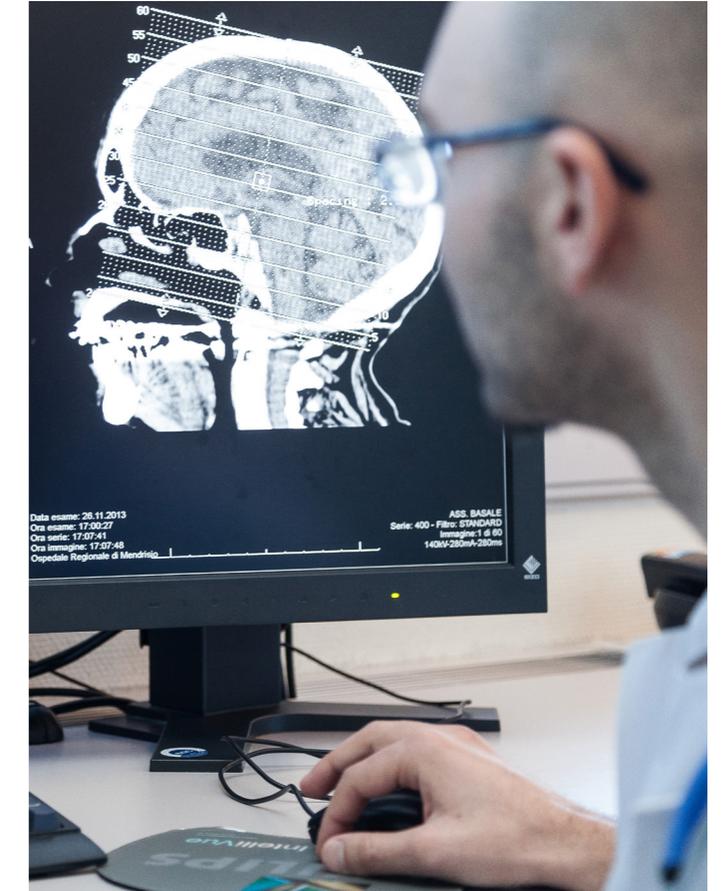
Module	Title	Credit	Date
Kick off	Welcome and information		18–19 october 2018
Module 1	Lecture series / e-learning	2 ECTS	18 october – 30 june 2018
Module 2	Sleep Science Winter School	2 ECTS	03–06 march 2018
Module 3	CAS Thesis	3 ECTS	01 december – 31 may 2019
Module 4	Sleep Medical Summer School	3 ECTS	01–06 july 2019
Certification	Certification Ceremony		july 2019

## Who can apply?

Diagnosis, treatment and management of disorders of sleep and consciousness requires a multidisciplinary approach. Our course is designed either for professionals already working in the corresponding area of medicine, or for graduates intending to specialize in these fields.

Eligible for the CAS are applicants with the following backgrounds:

- medical degree with or without specialization (general practitioners, neurologists, psychiatrists, pulmonologists, paediatricians, othorines, internists, anaesthesiologists)
- dentists
- psychologists and neuropsychologists
- candidates with a bachelor degree in a biology and health related disciplines
- candidates with a bachelor in electrophysiology technique
- study nurses interested in sleep
- human and translational bio-researchers interested in sleep and consciousness.



## Tuition fee

The total tuition fee for the CAS amounts to CHF 7'000.–

This sum includes:

- Teaching and class activities
- Test fees
- Lecture materials (excluding books)

Travel and accommodation/food for the seminars in Bern, Wengen and Lugano are not included in the tuition fee and have to be organized and paid individually.



## Early bird

A discount of CHF 1'000.– applies to candidates submitting their application by **30 June 2018**.



## Scholarship

The European Sleep Foundation encourages registered students to send applications for scholarships for the CAS program starting in October 2018.

Deadline for submitting CAS scholarship application, including Motivation letter and CV is the **15 September 2018**.

Applications have to be sent in electronic form to: **info@asc.unibe.ch**.



## Admission deadline

The application deadline for the CAS in Sleep, Consciousness and Related Disorders program 2018 is **31 August 2018**.

Please visit **www.asc.unibe.ch** for further information on the application process.



# CAS Certificate of Advanced Studies in Sleep, Consciousness and Related Disorders

Academy of Sleep and Consciousness (ASC)



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**Locations**

Bern  
Lugano  
Wengen

**Dates**

October 2018 -  
July 2019

**Application Deadline**

31.08.2018

**Credits**

10 ECTS

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**For more information:**

[www.asc.unibe.ch](http://www.asc.unibe.ch)