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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

 **INSELSPIITAL**
UNIVERSITÄTSSPIITAL BERN
HÔPITAL UNIVERSITAIRE DE BERNE



Ente Ospedaliero Cantonale

 **ESF**
European Sleep Foundation

Why this CAS?

Sleep is a fascinating and still mysterious state of consciousness, which is essential for the metabolic balance of all living beings. The number of people suffering from disorders of sleep and consciousness is remarkably 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 healthcare system. Thus, there is an urgent need for highly qualified and trained experts in sleep physiology and medicine. To meet this demand, University of Bern and Università della Svizzera italiana (USI) in collaboration with Ente Ospedaliero Cantonale (EOC) and Inselspital, Bern University Hospital, 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 Objectives

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 sleep and consciousness disorders.

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 receive a *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 classroom lectures, seminars and online distance learning. English is the official language of tuition. The program contains four modules with lectures held by international faculty, scientists and experts in the fields of sleep medicine/research, consciousness and related disorders. Starting with module 1 in October 2018, the program will end with module 4 in July 2019.

Modules

Module 1 Lecture series / e-learning	Module 2 Sleep Science Winter School	Module 3 CAS Thesis	Module 4 Sleep Medical Summer School
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 know-how, 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 know-how 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 out with a classroom seminar in Bern, followed by e-learning sessions, which are structured in basic and clinical sessions of recorded lectures and 6 sessions on 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. Students are required to pass in order to gain access to the next lectures.

Courses

- 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 know-how 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

Credits
2 ECTS

Location
Wengen

Exams
The examination will consist in multiple-choice questions.

Courses

- Key Lectures**
- The regulation of sleep
 - The function of sleep
 - Circadian rhythms
 - Sleep and 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 know-how of systematical literature research (systematic reviews) and the quantative and qualitative summarising 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 a 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 on the main sleep disorders and provides further in-depths expertise in managing the diagnosis and treatment of disorders. The Summer School 2019 is the 5th edition of a well consolidated course with great success in the past, formerly known as the Alpine Sleep Summer School and will be held in Lugano for one entire week in July. 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

Key Topics

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

Course Schedule

Module	Title	Credit	Date
Kick-off	Welcome and information		18–19 October 2018
Module 1	Lecture series / e-learning	2 ECTS	18 October 2018 – 30 June 2019
Module 2	Sleep Science Winter School	2 ECTS	03–06 March 2019
Module 3	CAS Thesis	3 ECTS	01 December 2018 – 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. The CAS 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, pulmonologist, paediatricians, othorines, internists, anaesthesiologists)
- dentists
- psychologists and neuropsychologists
- candidates with a Bachelor's degree in a biology and health related disciplines
- candidates with a Bachelor's degree in electrophysiology technique
- nurses with a Bachelor's degree interested in sleep
- human and translational bio-researchers interested in sleep and consciousness.



Tuition fee

The total tuition fee for the CAS is CHF 7,000.–

Tuition includes:

- Teaching and class activities
- Test fees
- Lecture materials (excluding books)
- Registration for Winter Science and Summer Medical School.

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.



Application 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.



Early bird

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



Scholarship

The European Sleep Foundation encourages admitted 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 **31 August 2018**.

Applications are sent in digital form to:
info@asc.unibe.ch.



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Locations

Bern
Wengen
Lugano



Dates

October 2018–
July 2019



Application Deadline

31 August 2018



Credits

10 ECTS

For more information:

www.asc.unibe.ch