



Guide Summer School 2019

„Nutritional Aspects in Rehabilitation Exercise“
(4th Edition in Bern)

19 – 23 August 2019



In cooperation with:



Sponsored by:



Contact

2 Academic content of the programme
Prof. Dr. Jan Taeymans
+41 31 848 45 54
jan.taeymans@bfh.ch

Organisation and administration
International Office
+41 31 848 35 00
internationales.gesundheit@bfh.ch

Contents

1	Contact	2
2	Contents	3
3	Preface	4
4	Framework of the programme and course fees	5
5	Travelling to Bern	6
6	Places of Interest	8
7	Teaching Staff	23
8	Schedule	27
9	Venues	31
10	Accommodation	32

Preface

4

This fourth edition of the summer school on «Nutritional Aspects in Rehabilitation Exercise» at Bern University of Applied Sciences – Department of Health Professions is organised in close cooperation with the Vrije Universiteit Brussel (www.vub.ac.be). The programme concerns aspects of nutrition linked to rehabilitation exercise. The focus will be on the complex relation between (individualised) nutrition, rehabilitation (exercise) and health.

By the end of this one week summer school participants will be able to explain the relationship between nutrition and rehabilitation exercise, based on current evidence and state-of-the-art information. They will be able to conduct nutritional and biochemical-physiological assessments following up-to-date clinical and epidemiologic guidelines. Furthermore, participants can conduct a critical reading of meta-analyses within the field of nutrition and rehabilitation. Hence, participants may profit from an improved transfer of basic and applied research into daily clinical practice.

The programme offers participants the unique opportunity to widen their network, as well as to interact with other professionals and get insights in their teaching and research activities.

Framework of the Programme and Course Fees

5

The course is open for health-care professionals and advanced students (nutritionists, dietitians, physiotherapists, exercise therapists, physicians, etc.) who are interested in applied sciences and who want to work with clinicians and students from different disciplines. The course fee varies between students and professionals:

- CHF 298.– / student
- CHF 798.– / professional

The course fee includes the course programme, administration, tutoring and social activities. Not included are travel expenses, catering and accommodation.

Traveling to Bern

6 **Traveling by Plane via Bern Airport**

Bern Airport

The international Bern Airport lies just outside the capital city and offers daily connections to various European cities.

Just 20 minutes (10 km) from the city center, the airport has a reasonable size that facilitates the speedy processing of departures and arrivals.

Airport Bus

The city center can be reached easily and inexpensively within 20 minutes by public transportation. The AirportBus 334 runs half-hourly between the airport and the S-Bahn station Belp with direct S-Bahn connection to the main railway station in Bern.

For the first flight in the morning at 06:00h there is a direct bus connection from Bern main railway station (05:10h Bernmobil platform L, station square) to Bern Airport.

Single ticket: CHF 7.–

Discount rate*: CHF 3.70 (*e.g. Price for holders of the half-fare card).

Traveling by plane via Zurich Airport

With around 350 rail connections and over 700 bus and 400 streetcar departures a day, you can get from Zurich Airport to all the major cities and tourist regions in no time.

As Zurich Airport has its own train station, you can transfer directly from the plane onto a train. The trip into the city center takes just 10 minutes. In addition, there are convenient direct connections to other Swiss cities such as Basel, Bern or Geneva. You can find out the best way to reach your travel destination on arrival at Zurich Airport.

Traveling by Train

Bern is an important transportation hub within Switzerland. Regular direct connections by train to all major cities in Switzerland and to Europe's most significant megacities ensure a comfortable trip.

The Swiss Travel System brings together all of Switzerland's public transportation options in the Swiss Pass and Swiss Flexi Pass – reasonably priced tickets for trips within Switzerland combining travel by train, bus and boat.

Further information and travel schedules available at:

www.swisstravelsystem.ch

www.sbb.ch

Traveling by Car

Bern is connected to the European route 4 (E4) and the national autobahn network. The city is also connected to southern Switzerland and Italy via the Lötschberg Tunnel / Simplon Tunnel and the Great St. Bernhard Tunnel.

Find the quickest route to Bern: [Route Planer](#)

Lights on. Now also in the daytime. In Switzerland, it is a legal requirement that all motorised vehicle users have their lights switched on during the daytime.

This parking guidance system makes it easier for you to find a free parking space. It guides you from any autobahn exit quickly and easily to one of the downtown parking areas.

www.parking-bern.ch

Traveling in Bern

Bern Ticket inclusive for overnight visitors: From your first overnight stay in tourist accommodation in the city, you will receive a Bern Ticket for your whole stay. This lets you travel for free in zones 100/101 operated by LIBERO. The Bern Ticket also includes the Gurten funicular, the Marzilibahn funicular and the lift to Bern's cathedral platform, as well as your journey to and from Bern Airport. On the day you arrive in Bern, your reservation confirmation counts as a transfer ticket from the train station or Bern Airport to where you are staying. You will be given your Bern Ticket when you check in. It is only valid if fully filled in.

www.bern.com

Places of Interest

8

The City of Bern

The capital of Switzerland has many charms. Bern's quaint Old Town, a UNESCO World Cultural Heritage Site, is framed by the Aare river and offers spectacular views of the Alps.

With its 6 km of limestone buildings and medieval arcades, its Renaissance fountains with colorful figures, and the beautiful Cathedral surrounded by picturesque rooftops, Bern, founded in 1191, is truly a gem of medieval architecture in Europe.

Bern is a city of superlatives: most beautiful flower city of Europe, birthplace of Einstein's relativity theory, cradle of Toblerone chocolate and home to the largest Paul Klee collection in the world.



The BearPark

Bern's heraldic animal has been released into new-found freedom on the beautiful slope of the Aare river. The creators of the new, bear-friendly BearPark have built a landscape where Björk, Finn and Ursina can climb, fish and play, but also just retreat and relax.

A visit to the BearPark is a special experience for children as well as adults. Paths run through the park down to the Aare riverside path, giving visitors great insight into the lives of the bears. They can watch the bears play, bathe and climb right in front of their eyes.

Since 2015, the BearPark now provides an inclined elevator which connects the riverside path and the upper end of the enclosure. The elevator (free of charge) is also an exciting way to view the bears from a new perspective.



10 **House of Parliament (Bundeshaus)**

Construction on the Parliament Building (the west wing of today's Parliament Building) started in 1852. The east wing, mirroring the west wing, was added in 1884; and in 1902 the structure was extended into a building complex composed of three parts. All in all, 38 artists from throughout Switzerland are responsible for the building's decorations.

The Parliament Building is the seat of the Swiss government (Federal Council) and the parliament (National Council and Council of States). The building was completed in 1902. The central domed hall and both chambers feature numerous symbolic renderings of Swiss history.



The Cathedral of Bern (Berner Münster)

The Cathedral of Bern (Berner Münster) is Switzerland's largest ecclesiastical building. Construction started in 1421 and continued under a series of different builders for generations. The spire was finally completed in 1893. The vantage point of this masterpiece is located 344 steps above the entrance, in the 100m-high cathedral spire.

From Switzerland's highest church tower visitors can enjoy magnificent views across the city and into the Bernese Mittelland and the snow-capped mountains of the Bernese Oberland.

The Cathedral is Switzerland's largest and most significant church from the Late Middle Ages. As the dominant structure in Bern's Old Town, which was awarded UNESCO World Heritage status in 1983, the Cathedral plays a pivotal role in the city's architecture.



12 **The Clock Tower (Zytglogge)**

Today it is one of Bern's most important sights. The ornate astronomical clock with its moving figures was built in 1530. It served as the city's main clock and thus had an authoritative function in Bern.

It was from there that travel times indicated on stone markers along the cantonal roads were measured. Standard units of length – formerly cubit and fathom, today meter and double meter – are displayed for the public in the arch of the gate.



The Rose Garden

The Rose Garden is a large park with a wonderful view of the Old Town and Aare Loop. The park is home to 220 different types of roses, 200 types of irises and moor beds with 28 different types of rhododendrons.

From 1765 to 1877 the Rose Garden served as a cemetery. Since 1913 the Rose Garden has been a public park resplendent with the rich beauty of flowers and a pond. From 1956 to 1962 the park was redesigned, introducing rhododendrons and azaleas as well as an iris garden.

A pavilion and reading garden provide a place to relax. The restaurant Rosengarten is a great place to while away the time, and it offers a view of the rows of houses in the Old Town.



14

History Museum

In its permanent exhibition, the Bernisches Historisches Museum shows highlights from the fields of history, prehistory, early history and ethnography. The objects on display range from the Stone Age to the present, from cultures of all continents.

The integrated Einstein Museum presents a powerful presentation of the life and work of Albert Einstein and places it in the context of world history. Animated films and experiments illustrate the pioneering theories of this genius.



Natural History Museum

The Natural History Museum's primary focus is depicting animals in their natural environment. The museum is also home to the Plaggenstock Treasure, an astounding display of spectacular quartz crystals.



16

Einstein House

The Einstein House is located in the center of the Old City at Kramgasse 49, just some 200 meters from the Clock Tower (Zytglogge).

Albert Einstein rented the flat from 1903 to 1905 and lived there with his wife Mileva and son Hans Albert. The second-floor residence features furnishings from that time period as well as photos and texts presented in a modern exhibition system.

The third floor shows a film that gives an overview of Albert Einstein's life.



Zentrum Paul Klee

Heritage Site received a new landmark in 2005: the Zentrum Paul Klee. The bold masterpiece in steel and glass designed by leading Italian architect Renzo Piano is worth a visit in itself.

But it is also home to selected works, mainly drawings, from the world's largest collection of works by Paul Klee (1879-1940) and temporary exhibitions of further important modern and contemporary artists.

What's more, the Zentrum Paul Klee offers events such as concerts, readings and guided tours and is one of the most attractive Event & Congress Location in Switzerland.



18

Gurten, Bern's Local Mountain

Since the opening of the park in 1999, Bern's local mountain, the Gurten, has been delighting visitors from near and far with its relaxed atmosphere.

The Gurten offers a wide range of entertainment with a focus on culture, leisure and games. The park's lush green setting makes it a pleasant venue for seminars and meetings, and its restaurant is a culinary highlight for gourmets.

It's an ideal recreation area with an extensive children's play area, a miniature railway, grill areas and an observation tower. On clear days the view of the Alps is breathtaking.

[Website Gurten](#)



Botanic Garden

Various continents. The Botanic Gardens carries on the long tradition of grouping plants by geographic region. In just a few steps, you'll become familiar with plants from Australia and New Zealand, North America, Asia, Europe and Africa.

[Website Botanic Garden](#)



Schwellenmätteli

The Aare river characterizes the city of Bern with its unmistakable charm, providing the perfect setting for riverside walks. The Schwellenmätteli is located on the bank of the Aare, yet right in the middle of town.

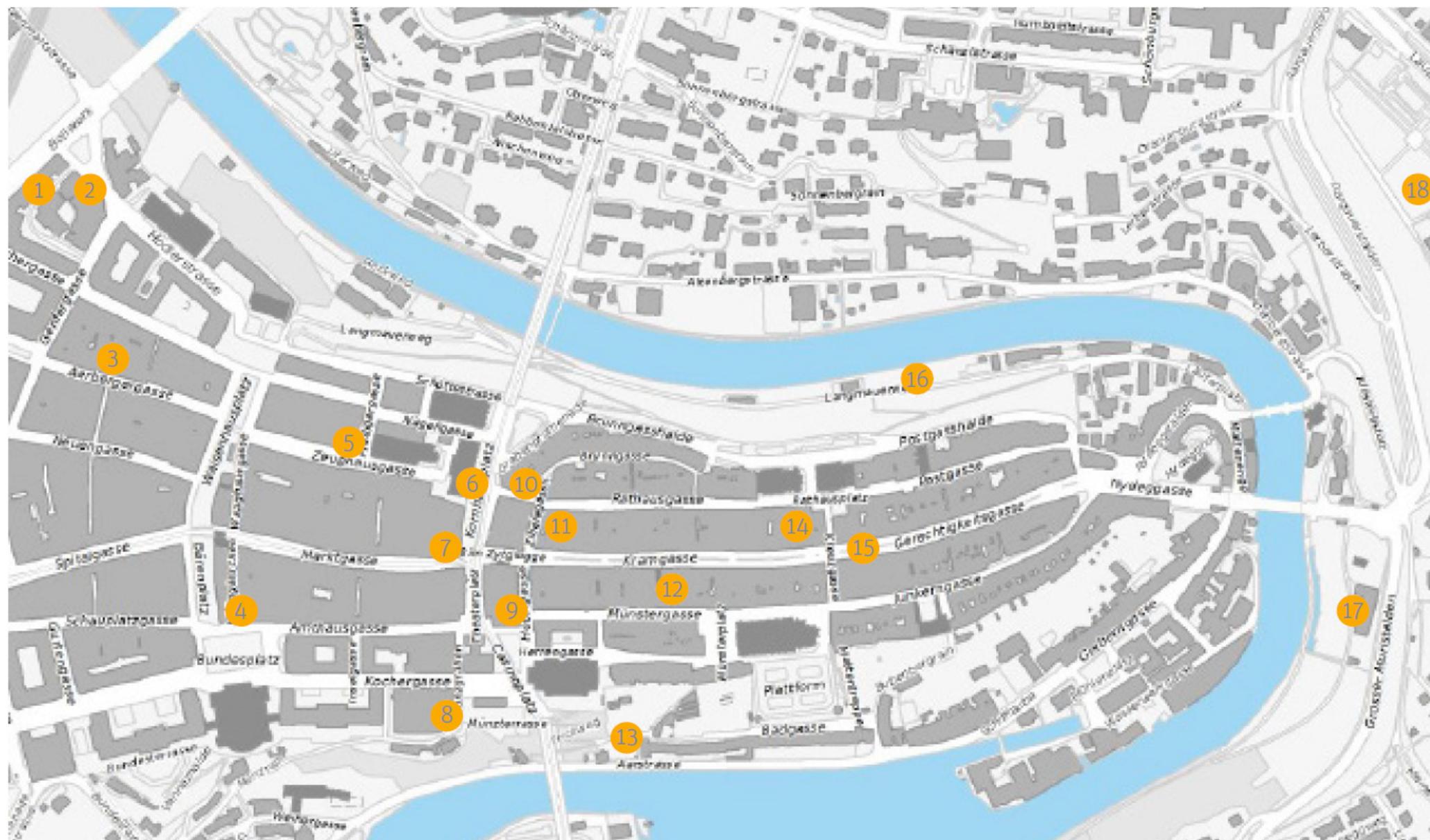
At the Schwellenmätteli – rightly dubbed the Riviera – you’ll feel like you’re on an island vacation. The restaurant is an oasis for dining and entertainment.



Restaurant and Bar Guide Bern

No.	Name	Rest.	Bar	Comment	Website
1	O Bolles	x	x	Central / very comfortable	www.obolles.ch
2	Kapitel Bollwerk	x	x	Central / very comfortable	www.kapitel.ch
3	Aarbergerhof	x	x	Central / Intl. Cuisine	www.aarbergerhof.ch
4	Entrecôte Café Fédéral	x		Central / business like	www.entrecote.ch
5	Lötschberg	x		Central / very Swiss / very comfortable	www.loetschberg-aoc.ch
6	Kornhaus Keller		x	Central	www.kornhauskeller.ch
7	Leichtsinn		x	Central	www.leichtsinn.ch
8	Bellevue Terrasse		x	Only in Summer / view!	www.bellevue-palace.ch
9	Lorenzini	x	x	Central / Italian	www.lorenzini.ch
10	Ringgenberg	x		Central / very comfortable	www.taberna.ch
11	Punkt	x		Central / Asian	www.restaurant-punkt.ch
12	Einstein	x	x	Very comfortable	www.einstein-cafe.ch
13	Schwellenmätteli	x	x	At the river Aare	www.schwellenmaetteli.ch
14	Volver	x	x	Tapas Bar	www.barvolver.ch
15	Zu Webern	x		Swiss	www.restwebern.ch
16	Casa Novo	x		At the river Aare	www.casa-novo.ch
17	Altes Tramdepot	x	x	View! / Touristic	www.altestramdepot.ch
18	Rosengarten	x	x	View!	www.rosengarten.be

Restaurant and Bar Guide Bern



Teaching Staff



Bern University of Applied Sciences
Prof. Dr. med. David Fäh

MD, MPH, human nutrition ETH,
FMH preventive medicine



Bern University of Applied Sciences
Prof. Dr. Jan Taeymans

Doctoral degree in Sports- and Movement Sciences,
MSc Biomed Research, MPH



Bern University of Applied Sciences
Prof. Dr. Helena Jenzer

Doctor of Pharmacy



Bern University of Applied Sciences
Prof. Dr. Karin Haas

Doctoral degree in Nutritional Sciences



Bern University of Applied Sciences
Prof. Dr. Samuel Mettler

Doctor of Philosophy (Ph.D.), Nutrition



Ghent University
Prof. Dr. Inge Huybrechts, PhD

Researcher, Nutritional Epidemiology Group (NEP) at
the International Agency for Research on Cancer



Hasselt University
Prof. Dr. Dominique Hansen

Doctoral degree in Rehabilitation Sciences and Physio-
therapy



University of Antwerp
Prof. Dr. Dirk Vissers

Physiotherapist, Doctoral degree in Medical Sciences



Vrije Universiteit Brussel
Prof. Dr. Dirk Aerenhouts

Doctoral degree in Sports- and Movement Sciences



Vrije Universiteit Brussel
Prof. Dr. Peter Clarys

Doctoral degree in Biomedical Research Sciences, MSc
Sports- and Movement Sciences, MBA

Schedule

Monday, 19 August 2019

26

Topic	Lecturer	Time	Venue	Type
IT-support (optional)	IT-support	08.00 – 08.45	SW48 #303	
Welcome and introduction to the course	Aileen Kirchhofer & Tanja Andrist	08.45 – 09.00	SW48 #303	
Diet, physical activity and health – how can we postpone the development of chronic disease	Prof. Dr. med. D. Fäh	09.00 – 09.45	SW48 #303	Lecture
Ergospirometry testing: basics and advanced principles of exercise testing	Prof. Dr. D. Hansen	09.45 – 10.30	SW48 #303	Lecture and practical work
Break		10.30 – 10.45		
Exercise intervention in obesity and diabetes: state of the art	Prof. Dr. D. Hansen	10.45 – 11.30	SW48 #303	Lecture
Exercise intervention in heart disease (coronary artery disease, heart failure, heart transplantation): state of the art	Prof. Dr. D. Hansen	11.30 – 12.15	SW48 #303	Lecture
Lunch and Social Event		12.15 – 13.30		
Ergospirometry testing: evaluation of exercise tolerance and exercise physiology in patients with cardiometabolic disease	Prof. Dr. D. Hansen	13.30 – 14.15	SW48 #303	Lecture and practical work
Diet quality indices: overview of the different indices, use of indices in nutritional epidemiology (Part 1)	Prof. Dr. I. Huybrechts	14.15 – 15.00	SW48 #303	Lecture
Diet quality indices: overview of the different indices, use of indices in nutritional epidemiology (Part 2)	Prof. Dr. I. Huybrechts	15.00 – 15.45	SW48 #303	Lecture
Break		15.45 – 16.00		
Calculation of different indexes based on diaries and based on FFQs and its application on (real) data sets (Part 1)	Prof. Dr. I. Huybrechts	16.00 – 16.45	SW48 #303	Assisted worked examples
Calculation of different indexes based on diaries and based on FFQs and its application on (real) data sets (Part 2)	Prof. Dr. I. Huybrechts	16.45 – 17.30	SW48 #303	Assisted worked examples

Tuesday, 20 August 2019

27

Topic	Lecturer	Time	Venue	Type
IT-support (if needed)		08.00 – 08.45	SW48 #303	
Introduction to personalised nutrition	Prof. Dr. I. Huybrechts	08.45 – 09.30	SW48 #303	Lecture
Practical aspects of personalised nutrition (Part 1)	Prof. Dr. I. Huybrechts	09.30 – 10.15	SW48 #303	Assisted worked examples
Break		10.15 – 10.30		
Practical aspects of personalised nutrition (Part 2)	Prof. Dr. I. Huybrechts	10.30 – 11.15	SW48 #303	Assisted worked examples
Introductory lecture to prepare the afternoon's work-shop	Prof. Dr. D. Hansen	11.15 – 12.00	SW48 #303	Lecture
Anaerobic threshold, ventilatory threshold, lactate threshold... what's in a name?	Prof. Dr. D. Vissers	12.00 – 12.45	SW48 #303	Lecture
Lunch & transfer to BFH Movement Laboratory		12.45 – 14.00	SB64	
Demonstration treadmill ergometry (e.g. single stage treadmill walking)	Prof. Dr. D. Hansen & Prof. Dr. D. Vissers	14.00 – 14.45	SB64 #U2	Demonstrations & Workshop
Demonstration step test	Prof. Dr. D. Hansen & Prof. Dr. D. Vissers	14.45 – 15.30	SB64 #U2	Demonstrations & Workshop
Break & transfer to Ergometry Laboratory of Inselspital		15.30 – 15.45	Insel-spital	
Demonstration CPET and cycling ergometry in small groups (e.g. Astrand-Rhyming test)	Prof. Dr. D. Hansen & Prof. Dr. D. Vissers	15.45 – 18.15		Demonstrations & Workshop
Social Event: Guided Tour of Bern		From 19.45 on		

SW48 Schwarztorstrasse 48, 3007 Bern

SB 64 Stadtbachstrasse 64, 3012 Bern

Wednesday, 21 August 2019

28

Topic	Lecturer	Time	Venue	Type
Theoretical aspects of health-economic evaluation as used in nutrition and exercise rehabilitation sciences	Prof. Dr. J. Taeymans	08.45 – 09.30	SW48 #303	Lecture
Theoretical aspects of health-economic evaluation as used in nutrition and exercise rehabilitation sciences	Prof. Dr. J. Taeymans	09.30 – 10.15	SW48 #303	Lecture
Break		10.15 – 10.30		
Break-out session: How to read critically a health-economic evaluation study report	Prof. Dr. J. Taeymans	10.30 – 11.15	SW48 #303	Workshop
Break-out session: How to read critically a health-economic evaluation study report	Prof. Dr. J. Taeymans	11.15 – 12.00	SW48 #303	Workshop
Lunch		12.00 – 13.15		
Physical activity and nutrition: from rehabilitation to athletes	Prof. Dr. P. Clarys & Prof. Dr. D. Aerenhouts	13.15 – 14.00	SW48 #303	Lecture
Introductory lecture to prepare the workshop (Part 1)	Prof. Dr. P. Clarys & Prof. Dr. D. Aerenhouts	14.00 – 14.45	SW48 #303	Lecture
Introductory lecture to prepare the workshop (Part 2)	Prof. Dr. P. Clarys & Prof. Dr. D. Aerenhouts	14.45 – 15.30	SW48 #303	Lecture
Break & transfer to Ergometry Laboratory of Inselspital		15.30 – 16.00	Inselspital	
Sweat analysis, urine analysis Blood glucose (and blood lactate) concentration measurements during cycle ergometry	Prof. Dr. P. Clarys & Prof. Dr. D. Aerenhouts	16.00 – 20.00	Inselspital	Workshop (work in small groups on cycle ergometers)

SW48 Schwarztorstrasse 48, 3007 Bern

Thursday, 22 August 2019

29

Topic	Lecturer	Time	Venue	Type
In and out: drinking and fueling guidelines for exercise performance and health	Prof. Dr. S. Mettler	08.45 – 09.30	SW48 #303	Lecture
In and out: drinking and fueling guidelines for exercise performance and health	Prof. Dr. S. Mettler	09.30 – 10.15	SW48 #303	Lecture
Break		10.15 – 10.30		
In and out: drinking and fueling guidelines for exercise performance and health	Prof. Dr. S. Mettler	10.30 – 11.15	SW48 #303	Lecture
Proteins, protein anabolism and catabolism: Theoretical refresher and indication examples in rehabilitation	Prof. Dr. H. Jenzer	11.15 – 12.00	SW48 #303	Lecture
Lunch		12.00 – 13.00		
Nutrigenomics: The way towards personalised nutrition	Prof. Dr. H. Jenzer	13.00 – 13.45	SW48 #303	Lecture
Biochemistry: Metabolic principles and interpretation in blood analysis	Prof. Dr. H. Jenzer	13.45 – 14.30	SW48 #303	Lecture
The interpretation of blood and saliva analysis results and its practical implications for dietary advice (Part 1)	Prof. Dr. H. Jenzer	14.30 – 15.15	SW48 #303	Assisted worked examples
Break		15.15 – 15.45		
The interpretation of blood and saliva analysis results and its practical implications for dietary advice (Part 2)	Prof. Dr. H. Jenzer	15.45 – 16.30	SW48 #303	Assisted worked examples
Demonstration on nutrigenomics (Part 1)	Prof. Dr. H. Jenzer	16.30 – 17.15	SW48 #303	Screen.-Laboratory demonstration
Demonstration on nutrigenomics (Part 2)	Prof. Dr. H. Jenzer	17.15 – 18.00	SW48 #303	Screen-casted-Laboratory demonstration
Social Event: Dinner		From 18.30 on		

Friday, 23 August 2019

30

Topic	Lecturer	Time	Venue	Type
mHealth – the key to successful long-term health behavior change?	Prof. Dr. K. Haas	08.45 – 09.30	SW48 #303	Lecture
mHealth – ongoing research activities	Prof. Dr. K. Haas	09.30 – 10.15	SW48 #303	Lecture & demonstration
Break		10.15 – 10.30		
The dark side of science (Part 1)	Prof. Dr. S. Mettler	10.30 – 11.15	SW48 #303	Lecture
The dark side of science (Part 2)	Prof. Dr. S. Mettler	11.15 – 12.00	SW48 #303	Lecture
The placebo effect	Prof. Dr. S. Mettler	12.00 – 12.45	SW48 #303	Lecture
End of the official course				
Cultural excursion (optional)		afternoon		

SW48 Schwarztorstrasse 48, 3007 Bern

Venues



Schwarztorstrasse 48, 3007 Bern

By tram/bus

- From the main station (Hauptbahnhof) you can choose:
- Tram Nr. 3, direction Weissenbühl
- Tram Nr. 6, direction Fischermätteli
- Tram Nr. 7, direction Bümpliz
- Tram Nr. 8, direction Bern Brünnen Westside
- Bus Nr. 17, direction Köniz Weiermatt

To the bus stop «Kocherpark». From There it is just a one minute walk.

By foot

You can easily walk from the main station to Schwarztorstrasse (about 10 minutes).

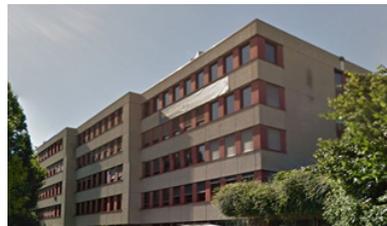
Stadtbachstrasse 64, 3012 Bern

By foot

Take the exit «Welle» at the main station in direction Bern University (Universität Bern). From the main station it is a quick and easy walk (5 minutes).



Schwarztorstrasse 48



Stadtbachstrasse 64

Accommodation

32 Budget

Martahauss [Link](#)
Hotel Landhaus [Link](#)
B&B am Pavillon [Link](#)
Youth Hostel Bern [Link](#)

Standard

Hotel National [Link](#)
Hotel Kreuz Bern [Link](#)
Hotel La Pergola [Link](#)

Comfort

Belle Epoque (ask for the company rate for
«Berner Fachhochschule») [Link](#)

Other

Airbnb [Link](#)
Bern Tourismus [Link](#)

Bern University of Applied Sciences

Health Professions
International Office
Murtenstrasse 10
CH-3008 Bern

Phone +41 31 848 35 00

internationales.gesundheit@bfh.ch
bfh.ch/gesundheit/summerschool