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# BSCS Systems Neuroscience

for undergraduates

## A STUDY ABROAD SUMMER PROGRAM IN ENGLISH FOR US AND INTERNATIONAL STUDENTS

June 15-August 7 Budapest

Program Information and Call for Students



Semmelweis University, Department of Anatomy

Program Home Page: <a href="http://sysneuro-semester.org">http://sysneuro-semester.org</a>

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## **ABOUT BSCS SysNeuro**

BSCS SysNeuro is a new program offered by the Budapest Semester in Cognitive Science (BSCS) from 2015 on. BSCS is a study abroad school established in 2003, featuring a unique combination of academic excellence and rich cultural traditions.

BSCS was established as an undergraduate program for US and other foreign students offering a study abroad semester in the cognitive sciences in the Fall semester. BSCS SysNeuro has been started as a Summer semester in 2015. BSCS SysNeuro 2020 Page 3 / 19

#### **FRAMEWORK**

## **OBJECTIVES AND SCOPE**

The BSCS Systems Neuroscience is an undergraduate study abroad program for students from the US and other countries aimed at broadening their understanding about the brain as a complex system. Lecturers of the Program are distinguished experts with noteworthy international research and teaching experience.

#### AFFILIATION WITH SEMMELWEIS UNIVERSITY

The Program is run in Hungary by the Hungarian Cognitive Science Association (<a href="www.ma-kog.hu">www.ma-kog.hu</a>) and on the US side by BSCS-US LLC, Kalamazoo, MI. The BSCS Systems Neuroscience Program takes place at and academically supervised by the Department of Anatomy, Histology and Embryology, Semmelweis University, Budapest (Head: Prof. Ágoston Szél, <a href="http://semmel-weis.hu/anatomia/en">http://semmel-weis.hu/anatomia/en</a>), and coordinated by Dr. László Négyessy. Certificates with grades are issued also by the Department of Anatomy, Histology and Embryology, Semmelweis University.

#### THE UNIVERSITY

Semmelweis University is Hungary's leading medical university hosting numerous foreign language students in addition to Hungarians. Today, the University has more than 10,000 students including almost 20% from many countries worldwide. The Anatomy Department, which is one of the oldest, was founded at the second half of the eighteenth century and is located in a historic building in the downtown. The University's home page provides further details and background information, please visit <a href="http://semmelweis.hu/english">http://semmelweis.hu/english</a>.

#### HIGHLIGHTS OF BENEFITS

## • STUDY ABROAD AND EXPLORE EUROPE - AT A REASONABLE COST

The key benefit provided by this Program to students is the opportunity to complete a summer semester abroad with a high level academic content that is recognized by the sending institution and at the same time requires a significantly more modest financial commitment than a semester undertaken in the US or in Western Europe, due to the lower living costs incurred in Budapest.

## • CULTURAL EXPERIENCE

The Program provides a very important additional benefit for students, namely the opportunity to experience life in Hungary and in the Central and Eastern European region in a safe and assisted way. Students and faculty have a very diverse background, and a significant number of them come from Eastern Europe.

#### • GATEWAY TO VIENNA, PRAGUE, AND THE REST OF EUROPE

Hungary is a member of the European Union. Budapest is located just 250 kilometers (155 miles) away from Vienna and 300 kilometers (185 miles) from Prague, making these wonderful cities, along with many other European destinations easily accessible and perfectly suitable for a long weekend getaway. BSCS SysNeuro provides assistance to students who wish to organize such visits within Europe during their stay.

#### CALL FOR STUDENTS

The 2020 Call for Students is available at the website. The deadline for applications in 2020 is February 29 (for further details see "How to Apply"). Interested students may wish to contact the US Coordinator (jhegedus@kzoo.edu) and all applications should be submitted to <a href="mailto:bscs@bscs-us.org">bscs@bscs-us.org</a>. The interested are also invited to visit the BSCS SysNeuro Web page <a href="http://sysneuro-se-mester.org">http://sysneuro-se-mester.org</a> for additional information.

## **BASIC INFORMATION**

#### **OBJECTIVES**

The Program envisages providing:

- an introduction to understand the brain at an undergraduate level;
- safe and assisted experience of living in a European environment;
- an opportunity to gain insight into Hungarian and European culture and history, as well as to acquire an optional knowledge of the Hungarian language.

#### LANGUAGE

All courses are taught and all communication is conducted in English.

#### TUITION FEE

The Program operates on agreements with various Colleges and provides different services as per agreement. The tuition fee for 2020 is USD 5,300 (see also Stipends).

#### **STIPENDS**

For students whose social conditions do not permit them to pay a full tuition fee as well as for students from eligible countries, a stipend (from the practical point of view: a partial waiver on the tuition fee) is available upon request. Stipends are awarded by the Board of Directors on a case-by-case basis. Together with the request for a stipend, a proof of parental income and any further financial aid obtained is required. Students should inquire at their local universities and organizations for additional support.

#### WHAT IS INCLUDED IN THE TUITION AND WHAT IS NOT

The tuition fee includes:

- accommodation
- orientation day
- courses and course handouts as described separately
- high speed Internet access at dorm and campus (quality varies)
- Hungarian language course during the Semester
- cultural courses and other cultural programs including a guided tour in Budapest

#### The tuition fee does not include:

- meals
- visa and foreigner registration, passports, photographs, required health insurance
- travel from home to Budapest and back
- travels within Europe
- health insurance and other insurances
- local transportation costs
- telephone bills, medical costs, damage reparations, etc.

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Based on individual agreements with selected sending universities and colleges, additional special packages of service can be provided to students upon request.

## ACCOMMODATION

The accommodation offered by BSCS SysNeuro is, if possible in one of the regular student dormitories of Eötvös University - Hungary's leading science and Liberal Arts University - (simple rooms in good condition. Dorm availability changes annually and dorm allocations may shift. Room choice is limited; student needs are satisfied on a "first come first served" basis.

## NO-REFUND POLICY

The Program entails fixed expenditures (including lecturers' honoraria, costs of excursions etc.) and is fully tuition-driven. As a general practice therefore, we apply a strict no-refund policy vis-á-vis all officially enrolled students.

## ACADEMIC INFORMATION

#### STUDENT STATUS

The student card is a useful asset in buying transportation and museum tickets.

#### FACULTY AND COURSES

The BSCS SysNeuro Faculty and courses offered are detailed separately.

#### TEACHING AND RESOURCES

Students are not required to purchase textbooks for the courses (with the exception of the language courses). All courses are based on the delivered lectures. Teaching material is developed (or, in the case of readings, collected) by the faculty and distributed to the students at no additional costs. Classroom teaching is supplemented by mandatory reading materials and by further assignments (such as Internet or library-based student research) outside of class hours.

Resources available to students include a library (at CEU, the Central European University, www.ceu.hu) with a number of relevant scientific publications and reviews in English, as well as a few PCs with permanent Internet access. Internet is also available in the buildings and free WiFi is accessible in the majority of University campus locations including the dorm (quality varies).

## CREDITS TRANSFER AND TRANSCRIPT

Transcript: Every BSCS SysNeuro student attending at least 90% of the classes and meeting the requirements of each examination receives a Certificate from the Department of Anatomy, Histology and Embryology, Semmelweis University demonstrating the duration and other specifics of the courses attended as well as the grades obtained. US compatible official transcripts are also provided for all completed courses (see sample model in the Annex).

*Credits*: Students' home universities typically require the achievement of credits as result of a study abroad stay. In the case of doubt, the acknowledgement of earned credits by the students' home university must be negotiated in the application phase. BSCS SysNeuro's own credit system is fully compatible with the credit system of Semmelweis University, which strictly follows the ECTS (European Credit Transfer System). For official ECTS information, please consult:

http://ec.europa.eu/education/resources/european-credit-transfer-accumulation-system en

BSCS Systems Neuroscience offers 20 ECTS credits as follows: neuroscience classes: 7x2=14, Hungarian language: 2, Central European culture: 2 and lab practices: 2. To help credit transfer with US Colleges, in BSCS Systems Neuroscience we have a grouping of courses into corresponding classes for a US style crediting: From Molecules to Neural Networks NEURO310, The Functioning Brain NPHYS310, and Brain Behavior and Complexity COMP310.

## QUALITY CONTROL

The main quality control is exercised by the Board of Directors and by Department of Anatomy, Histology and Embryology, Semmelweis University. A further component of surveillance is exercised through the US Director and the students' home institutions. Additional on-site audits are always welcome by the Board.

#### **EXAMINATIONS**

The main form of assessment is a written or oral examination at the end of each course. Students receive a grade for each examination as well as a final grade (based on the average of the grades obtained) in the Certificate.

Written examinations take the form of a test or a short essay. An oral examination is conducted in the form of a dialogue between the teacher and a student, where, as a general rule, the student may take time to prepare his or her answers. Oral examinations at Hungarian universities are open to the public (practically: to fellow students) thus ensuring transparency.

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#### **GRADES**

In Hungary, grades are weighted on a scale of five, ranging from 1 to 5, with 5 indicating the highest and 1 the lowest grade: 5 stands for "excellent", 4 for "good", 3 for "mediocre", 2 for "satisfactory" and 1 "unsatisfactory/fail". (This directly translates to an A to F scale.)

Eventual equivalence issues arising between the various national grading /credit systems and the Hungarian should be consulted with the Student Advisor and the Study Abroad Office of the student's home institution and with the Program Chair of BSCS SysNeuro. In most cases the equivalence between the Hungarian and various other grading systems can be easily established.

## **ELIGIBILITY**

The Program is open to undergraduate students of all disciplines with a sufficient personal maturity to adapt to a new environment and a foreign society. Consequently, any undergraduate student of a University or College of good standing, who by the time of the start of the Budapest Semester has completed the first two semesters of his/her studies, is eligible to enroll in the Program. Students from any academic background are welcome, however, familiarity with one or more of the following disciplines is likely most conducive to completing a successful semester in the framework of BSCS SysNeuro: neuroscience, biology, computer science and mathematics; natural sciences, engineering, psychology. Students from other disciplines should contact the BSCS SysNeuro Program Chair before application time in order to discuss the compatibility of their academic background and expected benefits to be derived from completing the Program.

The selection of students takes place on a competitive basis, with a record of previous academic results constituting the sole selection criterion. The general minimum entry requirement at application time is a US grade point average (GPA) of 3.0. Students with a GPA lower than 3.0 should inquire with BSCS SysNeuro Directors on the possibility of a waiver.

#### HOW TO APPLY

Form sheets for application are available at <a href="http://sysneuro-semester.org/index.php/how-toapply">http://sysneuro-semester.org/index.php/how-toapply</a>. Applicants are requested to supply a recommendation from appropriate faculty. Application deadline for 2020 is February 29. Applications should be sent in email to: <a href="mailto:bscs@bscs-us.org">bscs@bscs-us.org</a>.

## "Early bird" applications:

Applications arriving before January 20, 2020 are entitled to a 10% reduction in the tuition fee.

Applications sent via e-mail must be accompanied by a signed hard copy of the signature page (included in the downloadable application form) sent by airmail or surface mail to:

László Négyessy, Ph.D.
Department of Theory, WIGNER RCP, RMKI, HAS, KFKI Campus, Building 13, Floor 1, Room 6.
Konkoly-Thege M. út 29-33,
Budapest,
H-1121, Hungary

#### FOR MORE INFORMATION

For any further information on the Program, kindly contact the US Coordinator, Ms. Judit Hegedus (jhegedus@kzoo.edu).

## **COURSE INFORMATION**

#### SYSTEMS NEUROSCIENCE

The Systems Neuroscience program follows the approach of systems theory in understanding the brain. The aim is to provide students a view of the brain as a whole via unfolding, at least in part, its immense complexity. This is a major challenge of all time, but the right answer should be one that can integrate actual knowledge. As we are in the fortunate period of time when high performance tools (both hardware and software) and large datasets are getting more and more available, systems thinking is inevitable in brain research. The course will also provide an introductory to understand brain signals and ways of communicating with the brain via state of the art techniques of neurotechnology. Successful completion of BSCS SysNeuro enables students to pursue graduate studies in the field of neurosciences in a later stage of their academic career.

#### PROGRAM START/END DATES

*June 15th - Aug 7th, 2020* 

June 15 - Program begins with Opening and Orientation

#### COURSES OFFERED IN THE FRAME OF BSCS SysNeuro

Every course is designed for the non-specialist student who has little or no prior familiarity with the given subject but is equipped with curiosity and is adequately intelligent to absorb new concepts, methods, and modes of thought. BSCS SysNeuro courses have been designed and Professors have been selected to fit these criteria without compromising academic quality.

## **BLOCK COURSES SYSTEM**

BSCS SysNeuro is based on a block courses system. A block course means a one-week (i.e. 5 days), 5 hours per day, intensive course of 20 contact hours altogether (includes 4 days of teaching, and consultation as well as exam on the fifth). All block courses come in the form of lectures (occasionally accompanied with independent student work).

Each BSCS SysNeuro course is a block course except the optional Hungarian Language Class held in the afternoon once in a week. To a limited extent blocks may move within the block course system without prior warning.

Block courses are not uncommon at Hungarian Universities and are generally welcomed by the students because of their highly concentrated character. A block course ends with an assessment in the form of typically a written or oral examination.

## STRUCTURE OF THE COURSES

#### COURSE SCHEDULE

Classes are Monday to Friday, 9:00 – 13:30. Location is at the Department of Anatomy, Histology and Embryology, Semmelweis University. Map is available at <a href="http://sysneuro-semester.org/index.php/location">http://sysneuro-semester.org/index.php/location</a>. Breaks are from 10:30 to 10:45 and from 12:15 to 12:45. Each week covers one course, with examination on Friday.

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• ORIENTATION DAY (1. DAY) Required, 0 (zero) credit. Personal introduction, introduction to Hungary and Budapest, to the University and its facilities, to the specifics of the local educational system, how BSCS SysNeuro works, timetables, etc.

• REGULAR COURSES (2-8. WEEK) All regular courses are required. They are 2 ECTS credits worth each, equivalent to 1.4 US standard semester hours (see CREDITS TRANSFER AND TRANSCRIPT above, for US equivalence). The table (next page) summarizes regular course information and their lecturers for 2017 (the 2018 credits are planned to be identical).

#### ADDITIONAL SPECIAL COURSES INCLUDED IN THE PROGRAM

Central European culture 2 ECTS credits 1.4 semester hour elective Hungarian Language NO credits, 1.4 semester hour elective

## MAXIMUM NUMBER OF CREDITS

To keep the students' work focused, no BSCS SysNeuro student is allowed to take more than 30 ECTUs. The offered semester hours for the core semester amount to 9.8 semester hours; and for the regular Hungarian language and Culture courses 2.8 semester hours can be earned.

## **COURSES IN 2020**

Schedule 2020	Course title	Lecturer	Contact Hrs	(8 weeks) semester hours	Course code
June 15	Orientation day	Ms. Ildikó Pieczka and Ms. Emese Pálfi	3	n.a.	n.a.
June 15-19	Central European culture	Eszter Greskovics (Archivist, art historian at Artpool Art Research Center, Budapest)	20	1,4	CULT 1
June 22-26	Systems Biology: Neuronal genomics and proteonmics	Dr. <b>Gábor Juhász</b> , (Laboratory of Proteomics, Institute of Biology, Eötvös Loránd University, Budapest)	20	1,4	NEURO310
June 29- July 03	Neocortex: from structure to function	Dr. László Négyessy, (Complex Systems and Computational Neurosci- ence Group, Wigner RCP, Budapest and De- partment of Anatomy, Histology and Embryol- ogy, Semmelweis Uni- versity, Budapest)	20	1,4	NEURO310
July 06-10	Microsystems to interface neurons	Dr. Zoltán Fekete, (Research Group for Implantable Microsystems, Faculty of Information Technology and Bionics, Pázmány Péter Catholic University, Budapest)	20	1,4	NTECH310

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July 13-17	Statistics and the Brain	Dr. <b>Gergő Orbán</b> (Computational Systems Neuroscience Lab, Wigner RCP, Hungarian Academy of Sciences, Budapest)	20	1,4	COMP310
July 20-24	Advanced data analysis methods	Dr. Zoltán Somogyvári (Complex Systems and Computational Neurosci- ence Group, Wigner RCP, Hungarian Acad- emy of Sciences, Buda- pest)	20	1,4	COMP310
July 27-31	Brain imaging: from normal to pathological	Dr. <b>Lajos Kozák</b> , (MR Research Center, Sem- melweis University, Bu- dapest)	20	1,4	NPHYS310
Aug 03-07	Neural rhythms: normal and pathological	Dr. <b>Dániel Fabó</b> , (Department of Functional Neurosurgery and Department of Epilepsy, National Institute of Clinical Neuroscience, Budapest)	20	1,4	NPHYS310
Total June 15-Aug. 07	8 courses		163	11.2	

Course Syllabi for the 2020 courses are downloadable from <a href="http://sysneuro-semester.org">http://sysneuro-semester.org</a>

#### PROGRAM DIRECTORS

#### PROFESSOR PÉTER ÉRDI

Author of *Mathematical Models of Chemical Reactions* (with J. Tóth, Princeton UP, 1999), *Neural Organization: Structure, Function, and Dynamics* (with M.A. Arbib and J. Szentágothai, MIT Press) and Complexity Explained (Springer). He is Henry R. Luce Professor of Complex Systems at Kalamazoo College, and Head of the Department of Biophysics in KFKI RMKI at the Hungarian National Academy of Sciences.

Web: <a href="http://kzoo.edu/~perdi/">http://kzoo.edu/~perdi/</a>

## Dr LÁSZLÓ NÉGYESSY

Senior Research Fellow, Complex Systems and Computational Neuroscience Group, Wigner RCP, Hungarian Academy of Sciences, Budapest and Department of Anatomy, Histology and Embryology, Semmelweis University, Budapest; experimental and theoretical nueroscience, networks of the cerebral cortex

Web: <a href="http://cneuro.rmki.kfki.hu/people/negyessy">http://cneuro.rmki.kfki.hu/people/negyessy</a>

## RESIDENT SECRETARY

BSCS SysNeuro employs a Resident Secretary who is responsible for all administrational matters and all contacts during the students' stay in Hungary and while they are studying in the BSCS SysNeuro. She is also the main contact for the parents (and families) of the students. The Resident Secretary is fluent in English.

The Resident Secretary has office hours every day 13:30 – 14:30 (office at the Dept. Anatomy) but she is available at all times, 24/7 in case of emergency during the whole Semester of BSCS SysNeuro. Please avoid calling the Resident Secretary outside the Semester. In all off-Semester matters consult the US Coordinator or the Program Directors. The name, email, and cell phone number of the Resident Secretary is (either/or):

*Ms. Ildiko Pieczka*, Postdoctoral Fellow, Eötvös University, Budapest, Hungary +36 20 348 5858, pieczka.i@gmail.com

Ms Emese Pálfi, Postdoctoral Fellow, Department of Anatomy, Histology and Embryology, Semmelweis University, Budapest, Hungary

+36 70 395 4215, palfi.emese@gmail.com

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## VISA AND REGISTRATION INFORMATION

US citizens currently need *no Visas* to Hungary. Accordingly, US students on BSCS SysNeuro are not required to have a Visa (non-US citizens please inquire).

All foreign students and all foreigners visiting Hungary for more than 90 days must register with the Office of Immigration and Nationality in Budapest (<a href="http://www.bmbah.hu/">http://www.bmbah.hu/</a>). Accepted BSCS SysNeuro students will be informed about the necessary documents and will be assisted when in Budapest. Having a Visa does not speed up or change the registration process in any way.

BSCS SysNeuro staff provides full assistance with the registration in Budapest. Registration currently involves a fee of ca. 75 USD, to be paid up front.

For general information about traveling and staying in Hungary, US students may wish to consult the Hungarian Embassy in the US:

Embassy of Hungary
Department of Consular Affairs
3910 Shoemaker St., NW
Washington, DC 20008
(202)-362-6730
<a href="http://washington.kormany.hu/consular">http://washington.kormany.hu/consular</a>

#### **ARRIVAL**

Program representatives will meet students upon their arrival (airport or rail station), provided that come in pre-arranged times (usually this means certain hours of the weekend before program beginning). Please note that this is a general policy and BSCS SysNeuro cannot, as a general rule, pick up students arriving at random times, except in emergency or otherwise unexpected situations.

It is vital that the organizers in Budapest are informed about students' travel well ahead of time. Students are requested to forward their travel itinerary to the Resident Secretary as soon as they become available.

Should a student's arrival in Budapest be delayed or affected by any unforeseen circumstance, Ms Emese Pálfi, +36 70 395 4215, <a href="mailto:palfi.emese@gmail.com">palfi.emese@gmail.com</a> or Ms. Ildiko Pieczka, +36 20 348 5858, <a href="mailto:pieczka.i@gmail.com">pieczka.i@gmail.com</a> needs to be contacted.

#### ASPECTS OF DAILY LIFE

#### THINGS TO BRING ALONG

Students should not forget their passports, air tickets, at least one major credit or debit card, and a sufficient amount of money in cash and/or travelers checks to cover immediate expenses upon arrival. It is advised that students bring along their laptops.

It is important that students bring an ample supply of any medicine they frequently use, as well as shoes and clothes that are appropriate for all seasons. Dormitory rooms come completely furnished, and are supplied with bed linen, kitchenware, etc. and further necessary items can easily be found in shops.

Thick items, such as sweatshirts, take two to three days to air dry as dryers are rarely used in Hungary. The dorm is equipped with washing machines. Towels and other personal hygiene items should be arranged for by the students themselves. While traveling, all forms of ID, cash, and a week's supply of any vital medication should be kept in the student's carry-on luggage. Although unlikely, checked-in baggage might be placed on a wrong plane or fail to make the connecting flight.

Before check-in all luggage should be equipped with a label featuring the student's final destination, as follows:

BSCS Systems Neurosceince Eötvös Collegium H-1118 Budapest Ménesi út 11-13 Hungary

#### ELECTRICITY

The voltage used in continental Europe is 220 Volts. Also the plug is different. This renders most American appliances useless unless they are convertible, battery-operated or you have an adapter. In the US, European adapters can be bought at every major electricity shop. Note that the outlet geometry is also different. Outlet adapters also exist that switch between the different systems and are available in the US for a few dollars. Today most general use electronic devices (such as laptops, portable CD players etc.) come equipped with a built-in conversion system between 110/220 Volts (but not between the mechanical outlet geometries). In such a case all you need is the mechanical adapter. In case of doubt, students should check their devices and consult a member of the Program staff in advance.

## **CLIMATE**

Climate in Budapest is similar to that of other cities with continental weather at similar latitude in Europe (e.g. Paris, Vienna, or Munich). It can be quite windy near the river Danube. It should be noted that in Europe, temperature is measured in Centigrades. Zero Centigrade is 32 Fahrenheit, and every 10-Centigrade difference makes another 18 Fahrenheit (i.e. 50 Fahrenheit is 10 Centigrade, 68 F is 20 C, etc).

#### **CURRENCY**

Hungarian currency is called Hungarian Forint, or Forint (Ft) for short. As a general rule, students should not carry much Forint in cash, as there are many ATM's in the city (a few of them directly on the Campus). ATMs also tend to give a good exchange rate. You can exchange dollars or travelers checks to Forints at the airport, rail station, or any of the hotels or banks in Budapest. There remains a currency black market in Hungary, and there is also a good deal of counterfeit currency in circulation; students are strongly advised not to trade currency with strangers.

Major international credit cards (in particular, MasterCard and Visa) are accepted at many places, including most restaurants, bookshops, and food stores. Further information is found in the welcome package.

Personal checks, cashier checks, money orders, etc., cannot be readily exchanged and are in limited use in Hungary. International banking is quite slow. Although you may deposit a personal check at some banks, it may take several months (!) until the check is cleared. It is a good idea to bring some personal checks along in case you have to mail away for something like a GRE registration. It is not a good idea to exchange all your money at once. The bank will convert Forints back to USD but will charge you again for the transaction. Exchange rates vary day-to-day reflecting changes in the international monetary market.

#### **GENERAL GUIDES**

Good information pages about student life in Budapest:

http://budapeststudent.com/

http://www.lonelyplanet.com/thorntree/thread.jspa?threadID=1844003

(note that links may change often and you may wish to consult search engines instead).

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Further information, such as how to buy a monthly student ticket, how to get a cell phone, etc., are provided during Orientation Day which is compulsory for Program participants or found in the welcome package. A general tourist site is <a href="http://budapestinfo.hu/home\_en.html">http://budapestinfo.hu/home\_en.html</a>. Also, you may wish to contact <a href="http://svsneuro-semester.org">http://svsneuro-semester.org</a> for additional information.

#### ENGLISH ON THE STREET

While not too many Hungarians speak foreign languages, it is possible to get by with English. One is likely to find at least one English-speaking person almost everywhere. A handful of basic Hungarian words will help out in most real-life situations. People tend to be co-operative and friendly towards foreigners.

#### **MEALS**

BSCS SysNeuro students should rely on the choice of available shops and restaurants in this respect. Besides, the Dormitory offers a student kitchen in the common area. The Orientation Day gives detailed information about on-campus student restaurants, nearby supermarkets, food stores, etc.

Special needs such as vegetarian, cholesterol-free, or religiously approved (Kosher, Halal, etc.) food is increasingly common in Hungary and should be obtained relatively easily at specialty places (please inquire). Living costs are relatively low in Hungary by most Western standards. For comparison, an average daily shopping may cost 2500 Forint (ca. 9 USD), and dinner in a reasonable city restaurant starts in the same range. A complete lunch in a student restaurant costs ca. 800 Ft (ca. 3 USD).

#### PUBLIC TRANSPORTATION

The public transportation system in Budapest is safe, cheap, and very well spread throughout the city. The student package contains necessary maps and descriptions. Tickets are valid for all public transport vehicles: subway, buses, trams, electric street cars ("trolley bus"). Transportation maps on the Internet are available from <a href="http://sysneuro-semester.org/">http://sysneuro-semester.org/</a>.

For accessing any city destination from the Airport, the best value for money is the "Airport Minibus", which operates as a multi-customer taxi, and costs ca. 6000 Forints (ca. 22 USD).

#### GENERAL LIVING COSTS DURING THE PROGRAM

Using the above data and related estimates, as well as experiences of our students, nonbinding estimates for general living costs during the semester are:

Food: 1,500 USD Phone: 300 USD

Cultural programs: 350 USD

Personal costs including local transportation: 350 USD

(International travels are not included).

Note that all these costs can vary greatly due to different backgrounds and needs. To compare, an average Hungarian student lives on c.a. 50,000 HuF/month, i.e. ca. 1,000 USD per semester.

#### MAIL AND PHONE

To call a telephone number in Budapest from abroad, use international call prefixes. From the United States, you prefix the number with 011-36-1. Dialing 011 summons the international switchboard (from ATT), whereas 36 is the country code for Hungary, and 1 is the city code for Budapest.

Notice the difference in time zones. Budapest has Central European Time (CET, i.e. GMT+1), which is 6 hours ahead of Eastern Daylight Time (New York.). For example, when it is

noon in New York and 9 a.m. in San Francisco, it is 6 p.m. in Hungary. At 6 p.m. in New York, it is midnight in Budapest.

To make a call from Budapest, you need to dial 00 for the international switchboard, then the country code (which is 1 for the US and Canada) followed by the area code and the telephone number without pauses.

Your mailing address in Budapest (for letters, packages or FedEx, etc.) will be:

Name\_of\_Student, room # Eötvös Collegium H-1118 Budapest Ménesi út 11-13 Hungary

#### SAFETY AND SECURITY

By most standards, Budapest is a safe city, except for a few distinct areas and at certain hours. The most typical street crime is theft at a crowded place, and fraud by black market dealers. Common sense is usually sufficient to avoid or to solve such situations. Open threat or unprovoked violence towards strangers is very rare.

The student package (distributed upon arrival) contains Police phone numbers (English operator), as well as further information. The US Embassy home page in Hungary (<a href="https://hu.usem-bassy.gov/embassy/budapest/">https://hu.usem-bassy.gov/embassy/budapest/</a>) explains the basics of safety in the city, together with the most typical criminal tricks (such as "fake police", i.e. civilians playing police – bear in mind that real police ALWAYS wears a uniform and ALWAYS comes in 2) deployed against tourists and visitors on the street – most of the street tricks are highly international.

## HEALTH AND CRISIS MANAGEMENT

In terms of public health and security, Hungary can be considered a highly safe country. Each BSCS student is required to hold a valid full health insurance that covers all accidents and usual medical treatments for the entire duration of their stay in the framework of the Program. Students arriving without proper health and accident insurance are required to obtain one at their own cost. If necessary, the Resident Secretary provides help and advice in this matter. In case of emergency or any crisis situation, the Resident Secretary or one of the emergency services provided below should be contacted.

#### INTERNET ACCESS

Campus buildings support wireless connections (standard Wi-Fi). Quality varies. Many students use their own laptops in Budapest and BSCS SysNeuro students are encouraged to do the same.

#### SPORTS FACILITIES

Students should use public facilities. Please consult the Chair or the Resident Secretary for more details and advice. Budapest is a city which offers virtually all imaginable sports activities, from wall-climbing and skateboarding to paragliding and horse riding, most of them usually available at low to reasonable costs. Students are advised not to forget about their gears and licenses, etc.

#### EXCURSIONS AND CULTURAL PROGRAMS

The Central European Culture course will include a guided tour in Budapest. Individual trips can be arranged for during the weekends. Assistance in the organization of such trips is provided by BSCS SysNeuro staff. Based on individual agreements with selected Colleges and Universities further value-added services can be provided. Arrangements of this kind underway with a number of institutions and is open to every college and university.

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Students are encouraged to organize programs on their own as they should be able to move about the city with ease after a comprehensive Orientation Day and the guided tour. Useful and informative websites exist in English, such as <a href="http://funzine.hu/">http://funzine.hu/</a> and should prove to be very helpful to students.

BSCS SysNeuro staff is also happy to give advice in terms of do's and don'ts. Student dormitories close at 10 p.m., which puts a limit to independent student activity. Students who need personalized guidance to cultural programs or wish to be accompanied by locals should inquire at the Resident Secretary. Local Eötvös students who volunteer to assist foreign students can be easily found on prior notice.

#### **DECENCY**

Students are expected to conduct a decent student lifestyle. Resident BSCS SysNeuro staff monitors and helps extracurricular student activities in order to strictly keep this goal.

The University Campus is located in the downtown area of Budapest, a city of over 2 million inhabitants (2,5 million in the Metropolitan Area). It is important for students to be aware of their share of responsibility with regard to their behavior on Campus and in the country in general. Improper lifestyle, in particular with respect to the use of alcohol, drugs and delinquency of any kind cannot and shall not be tolerated. Every disciplinary offense will be reported to the student's home institution.

#### **EMERGENCY**

The most important emergency phone numbers within Hungary are the following (no prefix):

General Emergency number: 112

Ambulance: 104 Fire-fighters: 105 Police: 107

Domestic directory assistance: 198 International directory assistance: 199 Posting a telegraph over telephone: 192 Automobile club emergency service: 188

Drug Stop Telephone Hotline: (+36 80) 505 678

## Appendix: a sample certficate

## Examination results\*

No:		
TIO.		

Courses	Results
Systems Biology: Neuronal genomics	
and proteonmics	
Computational models in systems	
neuroscience	
Neurodynamics: from single neurons	
to motifs	
Neocortex: from structure to function	
Learning and Navigation	
Brain imaging: from normal to	
pathological	
Neural rhythms: normal and	
pathological	
Statistics of the brain	

Hungarian Language	
Central European culture	

<sup>\*</sup>Explanation of grades: 5 = very good 4 = good 3 = fair 2 = pass 1 = fail

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## BSCS Systems Neuroscience

	No:
This certificate h	as been issued to
born in the city/town/village of	
in the country of	
on 19	
and who fulfilled his/her university semester of	obligations in the summer
the academic year	
at Semmelweis University, Depar Embryology, Budapest, Hungary.	tment of Anatomy, Histology and
Budapest, 20	
Program Director of BSCS	Dept. Director