UCONN Neuroscieince in Salamanca Spain

May 19 - June 24, 2018

UCONN Honors Program
Topics for this session

- Admissions – who goes to our program?
- Neuro Courses
- Spanish Courses
- A typical day in Salamanca
- Living, eating and drinking in Salamanca
- Travel while in Spain
- Prague – Neuroscience Methods course
- Cost
University of Salamanca

Where’s the frog?
Admission to the Program

- 3rd Year Student
  - Should have been on campus 2 years
- GPS 3.0 or higher
  - Science GPA is most important
- Must have prerequisites for the neuroscience course offered
- Maximum 50 students on the trip
Opening Reception 2011
**Who goes to our program?**

- **UCONN Undergrads**
  - PNB
  - MCB
  - Psychology
  - SLHS

- **Graduate students**
  - UConn Health Neuroscience
  - UCONN grads
  - U Mass
  - U Hartford
  - Netherlands
  - Germany

- **OTHER SCHOOLS**
  - Johns Hopkins**
  - Purdue**
  - U Mass-Amherst*
  - Bard
  - Colby
  - Conn College
  - Florida State
  - Fordham
  - George Washington
  - Hofstra
  - McGill
  - MIT
  - Rhodes
  - Oberlin
  - Ohio State
  - SUNY Albany

- **Other Schools**
  - Tulane*
  - U Arizona*
  - U Delaware
  - U Florida*
  - U Iowa
  - U Kentucky*
  - U Michigan*
  - U North Carolina
  - U Pittsburgh*
  - U South Florida
  - U Texas*
  - Wesleyan
  - Williams
  - U Vermont
  - U Virginia
  - U Col Wooster
Academics: Neuroscience

- Neuroscience class 2 hrs/day; Four days/week

- MEDS 5377: The Neurobiology of Hearing. Offered each year. Graduate school course (Honors)

- PSYC 2201: Drugs and Behavior. Offered in 2017. (Honors)

- PNB 3251: Biology of the Brain. Offered in 2018 (Honors)
Instituto de Neurociencias
Castilla y Leon
Salamanca 2012

Nell Cant, Duke University
Neurobiology of Hearing (MEDS5377)

- UCONN Health Center graduate course with honors credit for undergraduates
- Johns Hopkins elective for Neuroscience majors
- Neuroscience research on the auditory system
- All faculty currently do research
- Diverse topics from molecular to behavioral
- Other students are Neuroscience majors from other universities
Neurobiology of Hearing with Brad May (2011, Johns Hopkins)
Neurobiology of Hearing

- **Grading**
  - Write papers and critiques; quiz; group presentation
  - Propose an hypothesis-driven experiment based on lectures from previous week
  - Write a critique of another student’s paper
  - Group presentations final week

- **Prerequisites for this course:**
  - Best preparation is introductory neuroscience
    - Biology of Brain
    - Sensation and Perception
    - Physiological Psychology
  - Substitute courses will be considered

- [https://health.uconn.edu/meds5377/](https://health.uconn.edu/meds5377/)
Enrique Lopez-Poveda and Kemar
Neurobiology of Hearing Faculty 2018

- Douglas Oliver, Director, UConn Health
- Delores Lopez, University of Salamanca
- Enrique Lopez-Poveda, University of Salamanca
- Manolo Malmierca, University of Salamanca
- Miguel Merchan, University of Salamanca
- Gerard Borst, Erasmus University, Rotterdam
- Dan Polley, Eaton Peabody, Mass Eye and Ear, Harvard
- TBN
- TBN
- TBN
Drugs and Behavior (PSYC 2201)

- John Salamone, Psychology
- Drug effects on chemical transmission in CNS
- Behavioral/psychological effects of drugs
- Basic principles of psychopharmacology
- Survey of drugs (e.g., stimulants, antipsychotics, antidepressants, antianxiety agents)
- Focus on drugs of abuse
- Text: “Drugs, the Brain, and Behavior”
  - (Grilly and Salamone, 2011)
- PREREQUISITES: Psyc 1100, Bio 1107, or consent
PSYC 2200: Physiological Psychology

- Dr. James Chrobak, Psychology
- 3 credits, Honors
- Introduction to how neurobiology influences behavior and cognition. Emphasis is on forebrain systems
  - Movement
  - Attention
  - Decision-making
  - Memory
  - Psychological, neural, and psychiatric dysfunction
- Format: PowerPoint lecture; films; optional student presentations
- Requirements: 5 short, multiple-choice exams plus final exam
- Text/Materials: 1 text; supplemental online readings
PNB 3251: Biology of the Brain

- Instructor: Dr. Radmila Filipovic, Physiology and Neurobiology
- 3 credits, Honors
- Brain functions, from molecular to cellular and overall central nervous system organization
  - ionic basis of resting and action potentials
  - synaptic transmission
  - sensory and motor systems
  - plasticity
- Upper-level undergraduate physiology & neurobiology majors
- Also majors in the neurosciences, biological sciences, and psychology.
- Students assessed on classroom participation and examinations.
- Prerequisites: One 2000-level course in PNB or consent of instructor.
Teaching Staff 2016
Teaching Staff 2017
Academics: Spanish

- Spanish Class 2 hrs/day; Four days/week
- SPAN 1001/1002 –Spanish
  - Beginning or intermediate levels
  - <15 students per class
  - Introduction to Spanish culture
- SPAN 1193 -- Options for advanced Spanish speakers
  - Medical Spanish – nearly fluent speakers
  - Advanced Scientific Spanish – fluent speakers
Advanced Spanish Class 2010
Spanish Class
A typical day in Salamanca

- 7:30-8:30 am Spanish breakfast
- 8:30/9-11 am Spanish class
- 12-2 pm Neurobiology of hearing
- 1:30-4 pm Lunch (big)
- 4-6 Drugs & Behavior or Bio of the Brain
- 7-10 Tapas time
- 9-11 Dinner (small)
DORMITORIES IN 2017:

SINGLES: Ana Mogas (Translate in Google Chrome)

DOUBLES: Hernán Cortés Residence Hall
Joaquín Alonso
Colegio Mayor de Oviedo
Aldaba Rector
Food and Drink

The Spanish are the worlds best snackers
Mandala: My favorite coffee bar & veggie restaurant
Local sights

Chocolate?
Local sights - Cathedral
Cathedral
Local sights – Convent of Las Duenas
Las Duenas
Pontificate University
Casa de Conchas
Plaza Major at night
Salamanca at night
Travel while in Spain

- Weekend or day trips to Madrid and museums (Prado, Reina Sofía)
- Day trips to Segovia or Avila
- Three-day weekend trips to
  - Toledo
  - Portugal
  - Bilboa
- Longer trips to Sevilla, Cadiz, Lisbon, Barcelona
  (best for end of term)
100 km = 1 hour
Avila is nearby – 90 km
SEVILLE
Royal Castle - Madrid
Neuroscience Methods in Prague, Czech Republic

Institute of Experimental Medicine, Czech Academy of Science

- In 2018, limited to 30 students who all take the methods course
- Friday to Sunday- Travel to Prague & Tour
- Monday- Prague Methods day 1, 9 am – 2 pm
- Tuesday- Prague Methods day 2, 9 am – 2 pm
- Wednesday- Return to Salamanca
Neuroscience Methods Program

DAY 1 – Introduction to Four Methods
- Acoustical measurement and stimulation Zbynek Bureš, Milan Jilek
- Anesthesia, surgery, auditory evoked responses Jirí Popelár, Tetyana Chumak, Jolana Bartošová
- Behavioral methods in auditory research Daniel Šuta, Natalia Rybalko
- Basics in immunohistochemistry, stereology and quantitative morphology Ladislav Ouda

DAY 2 – Introduction to Four Methods
- Patch clamp and brain slices Rostislav Turecek, Michaela Králíková, Kateryna Pysanenko
- Single and multiple unit recording Daniel Šuta, Jirí Popelár, Jolana Bartošová, Tetyana Chumak
- Two-photon microscopy in the auditory cortex of mouse Ondrej Novák, Ondrej Zelenka
- Measurement of otoacoustic emissions and subjective audiogram Jirí Popelár, Milan Jilek, Oliver Profant

Dinner at the restaurant Natýlouce zelený
Castle
Cathedral in Castle
Charles Bridge
Charles Bridge
Jewish Cemetery
Franz Kafka House and Street
Old Town Square
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<th>Budget Item Differ for UConn/Non-UConn Students and Graduate/Undergraduate</th>
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<tr>
<td>STUDY ABROAD FEE (SUMMER) *</td>
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<td>ROOM AND BOARD *</td>
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<td>HEALTH INSURANCE (2 MONTHS) *</td>
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<td>PERSONAL EXPENSES INCLUDING TRAVEL WITHIN EUROPE</td>
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## Comparison to Storrs Tuition

### 2016-2017 Undergraduate Tuition and Fees

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<th>No. of Credits</th>
<th>General Univ. Fee</th>
<th>Infrastructure Fee</th>
<th>UGrad Flat Fees $[^1]$</th>
<th>INSTATE Tuition</th>
<th>Sub-Total</th>
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*Per Semester. Excludes room and board, parking fees, waivable fees, and fees relating to selected courses or academic major. Applicable course fees are listed in the long description of a course on the course catalog.*
Manolo is waiting for you
The Neuroscience Study Abroad Program (NSAP) in Salamanca, Spain, will introduce students to neuroscience at an international level. Students will learn about neuroscience and Spanish culture by emersion in a truly unique city.

This program is a joint effort by UConn and the Institute of Neuroscience of Castilla y Leon, USAL with regular participation from faculty at Johns Hopkins and other distinguished universities. We offer a graduate school course and undergraduate level.

[more...]

https://health.uconn.edu/neuroscience-abroad/
Deadline February 20