



SCHEDULE NEUROBIOLOGY 2021

Time: 2021-11-02 – 2021-12-02

Lecture halls: Thymine & Uracil, Dept. Mol Biol. build. 6K, Top floor
(See map) A103 (Astrid Fagraeus) and E04 build. 6A, Hospital area.
Lecture room A, Unod 9, (Lärosal A) – Top floor, level 9 in the hospital

Tandläkarhuset

Labs: White and Blue labs (W&B labs)
(See map) Red and Green labs (R & G labs)

Course literature: "Neuroscience" Purves, Augustine, Fitzpatrick et al (Editors) Sinauer, 6th edition, 2018 (or older editions). There are a few copies at the libraries (general as well as medical library). There are also copies that can only be read at the library.

Web pages films : Susan Greenfield's "Brain Story"
<http://www.infocobuild.com/books-and-films/science/brain-story-bbc.html>
David Egelman's "The Brain"
<https://ihavenotv.com/how-do-i-decide-the-brain-with-david-eagleman>

Course requirements:

1. All lab work incl. reports, practical exercises and computer labs are mandatory. Attendance to lectures is strongly recommended. In case of absence on mandatory exercises due to sickness, inform SB without delay. To be marked (examined) during the course 2020, lab reports need to be submitted to the assistants not later than November 25, January 7 and February 25.
2. Information in lectures, labs and assigned reading. Course literature is "Neuroscience" Purves, Augustine, Fitzpatrick et al (Editors) Sinauer, (6th edition but older editions works fine too). There are a few copies at the libraries (general as well as medical library). There are also copies that can only be read at the library. Watching films and answering "film questions" is not a course requirement but will provide a deeper understanding, which is strongly recommended.

Examinations:

Written examination is 2021-12-02 08:00-12:00 **Note – before Monday November 22** you have to register online at UmU student web that you are going to take the exam. For the resit examination, which is tentatively booked to January 22, you need to register 11 days in advance.

Course leader and examiner Staffan Bohm (SB) staffan.bohm@umu.se; Phone: 070-9722595

Course administrator: Ingela Nilsson and Lina Helgesson studieadmin.molbiol@umu.se;

Teaching assistants: Anna Gharibyan (AG) anna.gharibyan@umu.se;
Viktoria Vedin (VV) viktoria.vedin@umu.se;

Lecturers: Staffan Bohm (SB) Molecular biology
Anna Berghard (AB) Molecular biology
Paolo Medini (PM) Molecular biology
Mattias Alenius (MA) Molecular biology
Simon Tuck (ST) UCCM

WEEK 44

2/11 Tuesday

09:00 – 12:00 Roll call & Lecture: Introduction (**Chp. 1, 27**) 6A R1 Astrid Fagraeus
Film “All in the mind” The web

3/11 Wednesday

09:00 – 12:00 Lecture: Neuron & Neuroanatom (**Chp. 1, 21 bladder, appendix. 1**) AB
Meeting ID: 687 4732 8346
Film: “First among equals” The Web

4/11 Thursday

08:00 – 10:00 Lab: Gross neuroanatomy, *BRING LABCOAT* (half class)
10:30 – 12:30 Lab: Gross neuroanatomy, *BRING LABCOAT* (half class)
Green lab, White lab

5/11 Friday

09:00 – 12:00 Lecture: Intro. electrophysiology & fMRI/PET(**Chp. 1-3**) SB ZOOM
Meeting ID: 613 5750 3284
Film: David Eagleman “Reality” The Web

WEEK 45

8/11 Monday

09:00 – 12:00 Lecture: Neural circuit formation (**Chp. 22, 23**) SB ZOOM
Discussion week 44, Films etc.
Meeting ID: 654 8126 2234

9/11 Tuesday

09:00 – 09:30 Quiz SB, VV, AG
Green and Red Lab
10:00 – 11:30 Lab: Neurohistology (half class) VV & AG,
12:30 – 14:00 Lab: Neurohistology (half class) Green and Red lab
Film David Eagleman “How do I decide” The Web

10/11 Wednesday

08:30 – 10:30 Lecture: Nervous system *D. melanogaster* (**Chp. 23**) MA Room A, Unod9
Top floor, level 9 hospital
11.00 – 16:00 Lab *Drosophila* (*lunch when possible*) AG W & B
Blue and White lab

11/11 Thursday

09:00 – 12:00 Lecture: Auditory system & Pain (**Chp. 10, 13**) AB, 6A R1 Astrid Fagraeus
13:00 – 15:00 Lecture: Olfaction, somatosensory (**Chp. 9, 15**) SB, 6A R1 Astrid Fagraeus
15:00 – 16:00 Discussion week 45, Films etc

12/11 Friday

08:00 – 17:00 Lab *Drosophila* AG W & B
Time slots of appr 1 h White lab

WEEK 46

15/11 Monday

09:00 – 10:30 Lecture: Nervous system *C. elegans* ST
11:30-13:00 “Home LAB”: *C. elegans* mutants AG, VV
hand in answers same day

16/11 Tuesday

9:00 – 12:00 Lecture: Neur. Excitability (**Chp. 1-3**) PM
Meeting ID:

17/11 Wednesday

9:00 – 12:00 Lecture: Synaptic transmis (**Chp. 4-5**) PM
Meeting ID:

Note: For the computer lab on Thursday you have to download the program “Metaneuron” on your own computer. Go to <https://www.metaneuron.org/>
In case you get problem with downloading on a Mac computer check out:
<https://www.youtube.com/watch?v=qnrjMckOu34>

18/11 Thursday

09:00 – – – Group 1 + 2, Computer lab “Metaneuron” “Home LAB”
Instructions are in CAMBRO
10:00 Feedback check computer lab. SB
Meeting ID:
Upload answers before 14:00 in the Drop Box in CAMBRO
Film David Eagleman “Who is in control” The Web

19/11 Friday

09:00 – 12:00 Lecture: Visual system 1, (**Chp. 11, 12**) SB
13:00 – 15:00 Lecture: Visual system 2, (**Chp. 11, 15**) SB
Meeting ID (09:00-15:00):
14:00 – 15:00 Discussion week 46, Films etc. SB

WEEK 47

22/11 Monday

09:00 – 12:00 Lecture: Lower/upper motor neurons (**Chp. 16, 17**) SB
13:00 – 15:00 Lecture: Modulatory motor systems (**Chp. 18, 19**) SB and the Net
Meeting ID (09:00-15:00)

23/11 Tuesday

09:00 – 12:00 Lecture: Neuroplasticity 1 (**Chp. 8, 24, 31**) SB
Meeting ID:

24/11 Wednesday

09:00 – 12:00 Lecture: Neuroplasticity 2 (**Chp. 8, 24, 31**) SB 6A R1 Astrid Fagraeus

25/11 Thursday

09:00 – 12:00 Lecture: Association cortices & Emotions (**Chp. 26 & 29**) SB
Meeting ID: 09:00 – 16:00
Film "In the heat of the moment" The Web
13:00 – 14:00 Discussion week 47, Films etc. SB

26/11 Friday

Own study

WEEK 48

29/11 Monday Own study

30/12 Tuesday Own study
13:00 – 14:00 Possibility for questions SB
Meeting ID:

1/1 Wednesday Own study

2/12 Thursday **Written exam 08:00-12:00 Östra Paviljongen**
22/1 Saturday (tentatively) 13:00-17:00 Resit Östra Paviljongen

