

PRINCIPLES OF NEUROSCIENCE I

NEUR 630

3 credits

Fall, 2021

LECTURE SCHEDULE - PRINCIPLES OF NEUROSCIENCE 1 NEUR 630 (2021)

PREREQUISITES: BIOL 200 and BIOL 201 or equivalent; general mammalian physiology.

TIME: Tuesday and Thursday from 12:15pm to 2pm

- Nov 8th:** - **Final assignment stage 2: Notice of Intent due**
- Nov 9th and 11th:
- Synaptogenesis
- Fine tuning of synaptic connections: Development of the visual system [**A. Milnerwood**]
- Society for Neuroscience (Chicago) meeting Nov 13th-17th**
- Nov 16th and 18th:
- Effector mechanisms in synaptic transmission
- Classes of neurotransmitters [**Y. Zhou**]
- Nov 19th:** - **Peer review of stage 2: Notice of Intent due**
- Nov 25th:
- Generation and function of activity patterns [**A. Peyrache**]
- Nov 30th and Dec 1st:
- Modulation of ion channels; phosphorylation, etc.
- Modulation of synaptic transmission, i.e. LTP [**W. Sossin**]
- Dec 7th:** - **Section III exam** Coordinated by Milnerwood
- Dec 14th:** - **Final assignment due**

PREAMBLE TO PRINCIPLES OF NEUROSCIENCE I (NEUR 630)

the objectives, and a summary statement. The Notice of Intent text can either be copy and pasted into PeerGrade or uploaded as a .pdf file. In either case, a maximum of 1.5 pages of text + 0.5 pages for references (if needed) or maximum 1000 words total using 1.5 line-spacing with margins of 2cm on each side and Arial 11 font is permitted. To help the students an example Notice of Intent will be provide. This will be due November 8th and will be uploaded by students onto PeerGrade in *myCourses* (anytime that day).

Peer Review of Stage 2 due Nov 19th

As with peer review of stage 1, stage 2 peer review will consist of each student receiving anonymously ~5 other student Notice of Intents documents on PeerGrade that they will peer evaluate. This peer evaluation will consist of a series of questions for each peer reviewer to address. These will be specifically noted in PeerGrade but could include items such as: is the title appropriate for the objectives described in the Notice of Intent, is the background well composed and understandable, are the objectives clearly stated and understandable for someone not necessarily familiar with the science, and are the hypotheses clearly stated and appropriately designed for the stated objectives? **Your peer review of ~5 other student Questions will be due November 19th** (copy and pasted into PeerGrade anytime that day). Peer reviews will be returned to each student and each student will provide a mark on how useful/helpful the peer review was to their question (see below for mark weightings).

Final assignment due Dec 4th

cited appropriately. All statements of others are referenced. The paper directly addresses the question. The material is well organized and logically presented. The style is grammatically correct and easy to understand. The student has demonstrated the ability to organize and to interpret the literature. The student has provided intellectual input. Controversies in the literature have been addressed and evidence for each side weighed. Suggestions have been made how controversies might be resolved or unanswered questions addressed experimentally.

A-: similar criteria to A, but not quite as good (i.e. not excellent in one of the criteria).

B+: A well written paper that does a superb job summarizing the key literature, but is lacking in interpretation or a paper that is very insightful, but not particularly well written and organized.

B: Similar to B+, but lacking in focus, missing some information, or containing misinterpretations or inconsistencies.

B-: A borderline paper at the graduate level. The paper makes good points, but key literature is missing and there is no evidence of interpretation; alternatively, the paper is poorly organized, the style is awkward, and there are many grammatical and spelling errors. Grading such a paper B- is giving you a break - next time it will be F.

F: Not acceptable at the graduate level.

<http://www.ncbi.nlm.nih.gov/books/bv.fcgi?call=bv.View..ShowTOC&rid=mcb.TOC>