**Neural Computation and Engineering Program**

*Introduction*: The neural computation and engineering program offers students from any major the possibility to combine studies in mathematical and engineering sciences with neurobiology. Students will take responsibility for completing the requirements for their departmental major. While all students in this program will have access to a subset of the NBIO course sequence, students planning on majoring in Neurobiology are encouraged to apply. NBIO majors will be required to use some electives for additional coursework in mathematical sciences. Provided that requirements are met for Honors in NBIO, the Computational Neuroscience research component may apply toward the preparation of an NBIO thesis. Students for whose schedule the NBIO sequence is not possible may substitute an Introduction to Neuroscience course (BIOL130). This program is consistent with tracks in the Applied and Computational Mathematical Sciences major and the Biophysics track in the Physics major. Note: this program is not a major or a minor; rather, it is an opportunity to pursue a specific set of courses under faculty mentorship, to engage in funded laboratory research and to become part of a UW network of undergraduate and graduate students, postdocs and faculty working in this field.

*Admission Requirements*: Admission is competitive. Students must satisfy the admissions committee that appropriate Biology prerequisites for NBIO courses (BIO 180, 200, 220) have been taken with satisfactory grades or can be waived. A selection of quantitative courses (mathematics, computer science) at a 300 level is recommended. The admissions committee reviews all applicants based on the following criteria: preparation for the major as indicated by grades in courses relevant to the subject area; overall GPA; personal statement reflecting interest in and commitment to the study of computational neuroscience; letter of support from a faculty member. Students from underrepresented groups are encouraged to apply.

***We urge students who are interested in this program but feel that the specific requirements are not an exact fit to contact one of the relevant faculty to discuss your needs: Bill Moody (***[***profbill@uw.edu***](mailto:profbill@uw.edu)***), David Perkel (***[***perkel@uw.edu***](mailto:perkel@uw.edu)***), Adrienne Fairhall (***[***fairhall@uw.edu***](mailto:fairhall@uw.edu)***), Eric Shea-Brown (***[***etsb@uw.edu***](mailto:etsb@uw.edu)***, Fred Rieke (***[***rieke@uw.edu***](mailto:rieke@uw.edu)***).***

*Program Requirements:*

1. Introduction to Neurobiology (10 credits). NBIO 301, 302; OR BIOL130, Introduction to Neuroscience (4 credits).
2. AMATH 342, Neural Coding and Computation.
3. Quantitative Methods in Neuroscience: PBIO 545
4. Participation in at least one quarter of computational neuroscience journal club
5. Participation in the annual Computational Neuroscience Connection, a campus-wide retreat held at UW
6. At least two quarters of laboratory research in a relevant lab
7. Participation in research ethics training

Additional course expectations will be determined individually based on each student’s background in consultation with a mentoring committee.

For further information visit [compneuro.washington.edu](http://compneuro.washington.edu) or email cncadmin@uw.edu.

**Application for Admission to Computational Neuroscience Program**

### Submit electronically to cncadmin@uw.edu. DEADLINE OCTOBER 12

**Important! Read Carefully: Students taking the NBIO sequence must start the NBIO course sequence this Winter Quarter. Advance admission for subsequent years is NOT available.**

* **Fill out the form below, both front and back, using only the space provided. PLEASE TYPE or PRINT.**
* **Attach an unofficial copy of your transcript.**
* **Arrange to have a letter of support sent to [cncadmin@uw.edu](mailto:cncadmin@uw.edu) from a faculty member who knows you well.**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Current Major: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Cumulative GPA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Why are you interested in this program and what do you hope to gain from it?**

**What are your career plans?**

**Optional. Any other relevant information about yourself that you would like us to consider.**

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**STAFF USE ONLY. DO NOT WRITE BELOW THIS LINE**