

## **Emphasis in Sensory Neuroscience**

Emphasizing sensory neuroscience is appropriate for PhD students who intend to pursue research careers in the study of pain and sensory neuroscience in a craniofacial context. Students will find this emphasis provides sufficiently fundamental training to prepare them to develop interfaces with other areas of neuroscience and biology.

### **RECOMMENDED COURSES**

|            |                                     |           |
|------------|-------------------------------------|-----------|
| NSC 5461   | Cellular and Molecular Neuroscience | 4 credits |
| NSC 5561   | Systems Neuroscience                | 4 credits |
| NSC 5661   | Behavioral Neuroscience             | 3 credits |
| NSC 8211   | Developmental Neuroscience          | 3 credits |
| OBIO 8022* | Oral Neuroscience                   | 2 credits |

Additional electives to consider:

|          |   |             |
|----------|---|-------------|
| NSC 5201 | Computational Neuroscience  | 3 credits   |
| NSC 8217 | Systems and Computational Neuroscience                                  | 2 credits   |
| NSC 8221 | Neurobiology of Pain and Analgesia (offered every 3 <sup>rd</sup> year) | 3 credits   |
| NSC 8320 | Readings in Neuroscience, Pain Journal Club                             | 1-4 credits |
| NSC 8481 | Advanced Neuropharmaceutics   | 3 credits   |

\*All PhD students in the Oral Biology graduate program, regardless of emphasis, must satisfactorily complete 8 credits of oral biology topics courses (OBIO 8020-8028), and register and participate in the oral biology student seminar series (OBIO 8030) each semester.

### **CONTACTS**

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### **REPRESENTATIVE FACULTY**

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Information in this document is subject to change. Students are responsible for verifying information with their advisors and all relevant departments.

## CALENDAR

### Year 1

| <b>Fall</b>           | <i>Months 1-4</i> | <b>Spring</b>         | <i>Months 5-9</i> | <b>Summer</b>                  | <i>Months 10-12</i> |
|-----------------------|-------------------|-----------------------|-------------------|--------------------------------|---------------------|
| NSC 5461              | 4 cr              | NSC 5661              | 3 cr              | Summer enrollment is optional. |                     |
| NSC 5561              | 4 cr              | NSC 8211              | 3 cr              |                                |                     |
| OBIO 8030             | 1 cr              | NSC 8320              | 1 cr              | OBIO 8666                      | 6 cr                |
|                       |                   | OBIO 8030             | 1 cr              |                                |                     |
| <i>Total credits:</i> | 9                 | <i>Total credits:</i> | 8                 | <i>Total credits:</i>          | 6                   |

### Year 2

| <b>Fall</b>           | <i>Months 13-16</i> | <b>Spring</b>                   | <i>Months 17-21</i> | <b>Summer</b>                  | <i>Months 22-24</i> |
|-----------------------|---------------------|---------------------------------|---------------------|--------------------------------|---------------------|
| NSC 8221 (if avail.)  | 3 cr                | NSC 8320                        | 1 cr                | Summer enrollment is optional. |                     |
| NSC 8320              | 1 cr                | OBIO 802X                       | 2 cr                |                                |                     |
| OBIO 802X             | 4 cr                | OBIO 8022                       | 2 cr                | If prelims completed:          |                     |
| OBIO 8030             | 1 cr                | OBIO 8030                       | 1 cr                | OBIO 8888                      | 6 cr.               |
| Written prelim. exam  |                     | Oral prelim. exam (by month 18) |                     | If prelims not completed:      |                     |
|                       |                     |                                 |                     | OBIO 8666                      | 6 cr.               |
| <i>Total credits:</i> | 9                   | <i>Total credits:</i>           | 6                   | <i>Total credits:</i>          | 6                   |

### Year 3

| <b>Fall</b>           | <i>Months 25-28</i> | <b>Spring</b>         | <i>Months 29-33</i> | <b>Summer</b>                  | <i>Months 34-36</i>                           |
|-----------------------|---------------------|-----------------------|---------------------|--------------------------------|---|
| OBIO 8030             | 1 cr                | OBIO 8030             | 1 cr                | Summer enrollment is optional. |   |
| OBIO 8888             | 8 cr                | OBIO 8888             | 8 cr                |                                |   |
| <i>Total credits:</i> | 9                   | <i>Total credits:</i> | 9                   | OBIO 8888                      | 2 or 8 cr<br>(depends on # taken in Summer 2) |

### Year 4

| <b>Fall</b>           | <i>Months 37-40</i> | <b>Spring</b>                        | <i>Months 41-45</i> | <b>Summer</b>          | <i>Months 46-48</i> |
|-----------------------|---------------------|--------------------------------------|---------------------|------------------------|---------------------|
| OBIO 8030             | 1 cr                | OBIO 8030                            | 1 cr                | Dissertation writing   |                     |
| Research              |                     | Month 43: 6 month seminar            |                     | Final oral examination |                     |
|                       |                     | Month 45: Begin writing dissertation |                     |                        |                     |
| <i>Total credits:</i> | 1                   | <i>Total credits:</i>                | 1                   |                        |                     |

All students, regardless of emphasis, must satisfy the following course requirements:

- Complete a major core curriculum of at least 24 credits.
- Complete 8 credits of oral biology topics courses (OBIO 8012, 8018, 8021-8028, 8371).
- Complete one statistics course (STAT 5021, PUBH 6450, PUBH 7445, or equivalent).
- Register and participate in the oral biology student seminar series (OBIO 8030) each semester for 10 semesters or until graduation, whichever comes first.
- Complete a designated minor (minimum 12 credits) in a nonclinical discipline.
- Register for 24 thesis credits (OBIO 8888) after passing the preliminary written and oral exams.