Checklist for Curriculum Proposals

_x_. 1. Are all signatures on the hard copy of the proposal?

_x_. 2. Is the effective date correct?

_x_. 3. Is the rationale for the proposal consistent with the changes proposed?

_x_. 4. Does the proposed number of credits match the stated number?

_nr_. 5. Have affected units been identified and contacted? Are required support letters attached?

_nr_. 6. Is a resolution necessary? If so, is it attached?

(Necessary for: establishing a major; disestablishing a major; a name change to any program with permanent status; a name change to a department or college; a transfer or creation of any department; request for permanent status).

_x_. 7. Are all courses (required or referenced) in the UDSIS Inventory or in the approval process? courses being proposed Challenge List

_x_. 8. Are all university requirements correctly specified?

_x_. A. Breadth requirements.

_x_. B. Multicultural requirement.

_x_. C. Writing requirement.

_x_. D. DLE requirement.

_x_. 9. Are all college requirements correctly specified?

_x_. 10. Is a side-by-side comparison provided?
UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: _____Brian Ackerman___________phone number_____2385________

Department: _______Psychology_____________email address_bpa@psych.udel.edu________

Date: __________October 4, 2012_________________________

Action: __Revise Neuroscience BS Major
(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term__________September 2013
(use format 04F, 05W)

Current degree__________Bachelor of Science
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: _______Bachelor of Science
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: _____Bachelor of Science in Neuroscience
Proposed new name for revised or new major / minor / concentration / academic unit
(if applicable)

Revising or Deleting:

Undergraduate major / Concentration: _____BS in Neuroscience______
(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor:
(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change:
(Must attach your Graduate Program Policy Statement)

Graduate Program of Study:
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration:

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.
List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations?
(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses, enter "None".)

None of the courses below are required. But all are optional. The goal of NSCI1100 is to provide an early exposure to neuroscience in the freshman year, primarily for majors. Otherwise majors do not typically take a neuroscience introductory course until the fourth semester. PSYC437 expands the set of PSYC and NSCI options at the 400 level for majors (must take two). The NSCI6XX courses expand the optional set of dedicated NSCI courses students must take at the 600-level. Students are required to take two and often take more than two. These courses will be taught every two years on average. The reason for this expansion is that the smaller set of 6XX courses are overenrolled (often 25 in each class) and the Behavioral Neuroscience and Cognitive Science faculties have new members who can offer important courses for preparation of NSCI undergraduate students for graduate schools and professional training. In sum, the numbers of NSCI majors has increased dramatically over the last three years, and we need to offer more courses to meet the needs of majors.

NSCI1100 Psychology and Brain Science
PSYC437 Hormones and Behavior
NSCI635 Neuroplasticity
NSCI636 Spatial Cognition
NSCI637 Behavioral Epigenetics
NSCI638 Clinical Neuropsychology
NSCI639 The Emotional Brain
NSCI640 Immune System and Behavior
NSCI641 Hormones and Behavior
NSCI642 Social Neuroscience
NSCI643 Body and Space

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: http://www.ugs.udel.edu/gened/

The revised curriculum, with its strong science emphasis, enhances critical thinking skills (Goal 2), and systematically instructs about the relations and methods of examining those relations between brain, mind, and behavior (Goals 5 and 6: methods of search for knowledge, and intellectual curiosity and engagement).

Identify other units affected by the proposed changes:
(Attach permission from the affected units. If no other unit is affected, enter “None”)

Department of Biological Sciences. We have attached a letter of support.

Describe the rationale for the proposed program change(s):
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

1. We now include a new introductory course (NSCI100) as an option (to PSYC100) so that students could get systematic exposure to neuroscience concepts early in their college careers, rather than in the 9th semester for the typical student. The early exposure should encourage a more informed selection of majors and courses.

2. At the request of BISC, we have rationalized our BISC requirements for the major. BISC requested this change to relieve enrollment pressure on BISC labs. In this regard, we have added one additional lab (BISC413), and so have helped spread out the demand across more labs. We also have increased the credit requirements, in accord with the increase in credits for the lab courses from 2 credits to 3.

3. We have added courses at the 400-level as options for students. One goal is to increase the neuroscience component of the set of options (e.g., more NSCI courses). Another is to open up more topical courses (e.g., stress and the brain) that would be of interest to both PSYC and NSCI students, and thus help increase the exposure of PSYC majors (BS and BA) to brain concepts.

4. We now restrict the number of NSCI and PSYC courses (a maximum of four) that NSCI majors can count for a double major in Psychology (BA or BS). Our intent here is to make the majors more distinctive and make it non-trivial for an NSCI major to double major. Absent this constraint, many students in completing the NSCI major will have 21 credits toward the Psychology major, and can too easily double major by taking three more courses.

5. We have increased the roster of 600-level courses available for NSCI majors. The goal is to relieve enrollment pressure on a few courses and increase the diversity and topicality of the offerings. The more complete roster should enhance the competitiveness of NSCI majors for graduate school and professional training.

Program Requirements:
(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and include a side-by-side comparison of the credit distribution before and after the proposed change)

The University and College requirements are not different in the new and old major. We put the side by side comparisons only for the specific course requirements for the major.

DEGREE: BACHELOR OF SCIENCE
MAJOR: NEUROSCIENCE

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110 Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>First Year Experience (see page xx)</td>
<td>0-4</td>
</tr>
<tr>
<td>Discovery Learning Experience (see page xx)</td>
<td>3</td>
</tr>
<tr>
<td>Three credits in an approved course stressing multiracial, ethnic, and/or gender-related course content (see pages xx)</td>
<td>3</td>
</tr>
</tbody>
</table>

COLLEGE REQUIREMENTS
Foreign Language
Breadth Requirements
(Minimum of 6 credits each in Groups A, B, & C)

Second writing requirement

<table>
<thead>
<tr>
<th>OID MAJOR REQUIREMENTS</th>
<th>53/54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences</td>
<td>16</td>
</tr>
<tr>
<td>BISC207 Introductory Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BISC208 Introductory Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BISC403 Genetics &amp; Evolutionary Biology</td>
<td>3</td>
</tr>
<tr>
<td>Both of these courses:</td>
<td></td>
</tr>
<tr>
<td>BISC306 General Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BISC316 Experimental Physiology</td>
<td>2</td>
</tr>
<tr>
<td>Or both of these courses:</td>
<td></td>
</tr>
<tr>
<td>BISC305 Cell Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BISC315 Experimental Cell Physiology</td>
<td>2</td>
</tr>
<tr>
<td>Or both of these courses:</td>
<td></td>
</tr>
<tr>
<td>BISC401 Molecular Biology of the Cell</td>
<td>3</td>
</tr>
<tr>
<td>BISC411 Experimental MB of the Cell</td>
<td>2</td>
</tr>
</tbody>
</table>

One of these courses:

| One of these laboratory courses: | |
| BISC315 Experimental Cell Physiology | 3* |
| BISC316 Experimental Physiology | 3* |
| BISC411 Experimental MB of the Cell | 3* |
| BISC413 Advanced Genetics Laboratory | 3* |

Students wishing to satisfy the pre-med requirements are advised but not required to take BISC401 and BISC411.

<table>
<thead>
<tr>
<th>Related Sciences</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS201/202 General Physics I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM103/104 General Chemistry I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>Psychology</td>
<td>12</td>
</tr>
<tr>
<td>PSYC100 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC209 Measurement &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following courses:</td>
<td></td>
</tr>
<tr>
<td>PSYC310 Sensation &amp; Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYC312 Learning &amp; Motivation</td>
<td>3</td>
</tr>
<tr>
<td>PSYC340 Cognition</td>
<td>3</td>
</tr>
<tr>
<td>NSCI414 Drugs and the Brain</td>
<td>3</td>
</tr>
<tr>
<td>NSCI433 Cognitive Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>Note: NSCI majors can count a maximum of four of these NSCI and PSYC courses for a double major in Psychology (BA or BS). *</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neuroscience</th>
<th>9/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCI1320 Introduction to Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>One of the following courses:</td>
<td></td>
</tr>
<tr>
<td>NSCI626 Advanced Neuroanatomy</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neuroscience</th>
<th>9/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCI1320 Introduction to Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>One of the following courses:</td>
<td></td>
</tr>
<tr>
<td>NSCI626 Advanced Neuroanatomy</td>
<td>3</td>
</tr>
</tbody>
</table>
One of the following courses:
NSCI631 Integrative Neuroscience I 3
NSCI632 Integrative Neuroscience II 3
NSCI633 Current Topics in Neuroscience 3
BISC639 Developmental Neurobiology 4

One of the following courses:
NSCI629 Integrative Neuroscience I 3
NSCI630 Integrative Neuroscience II 3
NSCI631 Current Topics in Neuroscience 3
NSCI634 Stress and the Brain 3*
NSCI635 Neuroplasticity 3*
NSCI636 Spatial Cognition 3*
NSCI637 Behavioral Epigenetics 3*
NSCI638 Clinical Neuropsychology 3*
NSCI639 The Emotional Brain 3*
NSCI640 Immune System & Behavior 3*
NSCI641 Hormones and Behavior 3*
NSCI642 Social Neuroscience 3*
NSCI643 Body and Space 3*
NSCI667 Varied Topics 3*
BISC639 Developmental Neurobiology 4

*designates changes from the old curriculum.

ROUTING AND AUTHORIZATION:  (Please do not remove supporting documentation.)

Department Chairperson __________________________ Date 10/8/12
Dean of College __________________________ Date __________________________
Chairperson, College Curriculum Committee __________________________ Date __________________________
Chairperson, Senate Com. on UG or GR Studies __________________________ Date __________________________
Chairperson, Senate Coordinating Com. __________________________ Date __________________________
Secretary, Faculty Senate __________________________ Date __________________________
Date of Senate Resolution __________________________ Date to be Effective __________________________
Registrar __________________________ Program Code __________________________ Date __________________________
Vice Provost for Academic Affairs & International Programs __________________________ Date __________________________
Provost __________________________ Date __________________________
Board of Trustee Notification __________________________ Date __________________________

Revised 02/09/2009 /khs