

Behavioral Neuroscience

Submitted By : Nyby, John G. <jgn2@lehigh.edu> on 10/29/2008 2:44:13 PM

Description : CURRENT BS REQUIREMENTS:

1. Math Requirement: Math 51, 52, 43.
2. Required Major Course: Bios 130

PROPOSED CHANGES:

1. Math Requirement: Math 51, 52 or Math 21, 22 .
2. Required Major Course: Bios 130 (with the approval of the major advisor, Bios 130 can be replaced with either Math 23 or Math 43).

Rationale : In a survey of 14 schools (Northwestern, Brandeis, BU, Princeton, U. Penn, Carnegie Mellon, Lafayette, Cornell, Penn State, Delaware, Yale, UVA, Maryland, & Dartmouth), Lehigh U. was the only school requiring 3 calculus courses for their bioscience-related degree programs. The other schools ranged from 0 to 2. These data confirmed our belief that 3 semesters of calculus are not REQUIRED for a undergraduate bioscience degree and consequently we propose to reduce the requirement to 2 courses.

The change will reduce the major requirements of this BS program by 1 course. Given the many curricular demands of this program, we see this as desirable. Since the registrar already knows to substitute Math 21, 22 as an option for Math 51, 52, we propose to make this option explicit which will also standardize this requirement with proposed changes in our other BS programs (Biology and Molecular Biology).

2. MOST BNS students will benefit more from learning descriptive and inferential statistics (BioS 130), as a basis for understanding and evaluating experimental research, than from more advanced math courses. However, some areas of biological science (i.e. manipulating genomic data bases, analyzing wave forms, modeling biological structures and processes, etc.) require an understanding of more advanced math . By allowing Math 23 or Math 43 to substitute for BioS 130, we provide a pathway to more advanced math courses (for mathematically inclined students) without increasing their major requirements. The BioS undergraduate committee felt this exception was important to make for the few students we anticipate would be affected.

We will place a statement in the catalog to make students aware of this possible substitution. The substitution would require the approval of the student's major advisor. The department will also inform the registrar of substitutions on a case-by-case basis (rather than have the registrar make the substitution automatically).

Student Impact (Internal) : This change will reduce the major requirements for the BS in BNS by one course thereby increasing student curricular flexibility. There are currently 59 majors in this program

Student Impact (External) : No impact on students from other Programs

Faculty Impact (Internal) : No impact on BioS faculty

Faculty Impact (External) : The proposed changes (in all our BS programs) would reduce the number of BioS students taking Math 23 and Math 43 and thus would impact the Math Department. We estimate a reduction of approximately 5-8 students per year in Math 23 and approximately 30-35 students in Math 43.

University Impact : No additional impact

Internal Approval : Yes

External Consultation : Yes, Math Dept. Chair: Wei-Min Huang, Ass't Chair: Garth Isaac

Biology

Submitted By : Nyby, John G. <jgn2@lehigh.edu> on 10/29/2008 2:58:00 PM

Description : CURRENT BS MATH REQUIREMENTS:

Math 51, 52, 43 or Math 21, 22, 23
and
Bios 130

PROPOSED CHANGES

Math 51, 52 or Math 21, 22
and
Bios 130 (with the approval of the major advisor, Bios 130 can be replaced with either Math 23 or Math 43).

Rationale : In a survey of 14 schools (Northwestern, Brandeis, BU, Princeton, U. Penn, Carnegie Mellon, Lafayette, Cornell, Penn State, Delaware, Yale, UVA, Maryland, & Dartmouth), Lehigh U. was the only school requiring 3 calculus courses for their bioscience-related degree programs. The other schools ranged from 0 to 2. These data confirmed our belief that 3 semesters of calculus are not REQUIRED for a undergraduate bioscience degree and consequently we propose to reduce the requirement to 2 courses.

The change will reduce the major requirements of this BS program by 1 course. Given the many curricular demands of this program, we see this as desirable. This change will also standardize these requirements with our other BS programs (See Proposals for BS programs in Behavioral Neuroscience and Molecular Biology).

Most Biology students will benefit more from learning descriptive and inferential statistics (BioS 130), as a basis for understanding and evaluating experimental research, than from more advanced calculus courses. However, some areas of biological science (i.e. manipulating genomic data bases, analyzing wave forms, modeling biological structures and processes, etc.) require an understanding of more advanced math. By allowing Math 23 or Math 43 to substitute for BioS 130, we provide a pathway to more advanced math courses (for mathematically inclined students) without increasing their major requirements. The BioS undergraduate committee felt this exception was important to make for the few students likely to want the substitution.

We will place a statement in the catalog to make students aware of this possible substitution. The substitution would require the approval of the student's major advisor. The department will also inform the registrar of substitutions on a case-by-case basis (rather than have the registrar make the substitution automatically).

Student Impact (Internal) : This change will reduce the major requirements for the BS in Biology by one course thereby increasing student curricular flexibility. Given the high curricular demands of Biology BS program, we see this as desirable. There are currently 72 majors in this program.

Student Impact (External) : No impact on students from other Programs

Faculty Impact (Internal) : No impact on BioS faculty

Faculty Impact (External) : This change would reduce the number of BioS students taking Math 23 and Math 43 and thus would have some impact on the Math Department.

(Including all BioS Major Programs for which we propose reduced math requirements, we estimate a reduction of approximately 5-8 students fewer in Math 23 and approximately 30-35 fewer students in Math 43 per year)

University Impact : No additional impact

Internal Approval : Yes

External Consultation : Yes, Math Dept. Wei-Min Huang, Chair; Garth Isaak, Ass't. Chair

Earth & Environmental Science

Submitted By : Bebout, Gray <geb0@lehigh.edu> on 10/29/2008 9:55:13 AM

Description : Modification of course requirements for the EES minor.

Current catalog listing:

Requirements for a Minor in Earth and Environmental Sciences

A minor is designed for students wishing to explore an area of Earth or Environmental Sciences in conjunction with a major program in another field for personal development or career enhancement.

The Earth and Environmental Sciences minor program consists of 1-credit integrated introductory laboratory EES 22 (Exploring Earth), plus other EES courses to bring the total earned in EES to a minimum of 15 credits. Natural science (NS) designated EES College seminars (EES 90) may be used to meet minor requirements.

Requested Changes (and New Catalog Listing).

Requirements for a Minor in Earth and Environmental Sciences

A minor is designed for students wishing to explore an area of Earth or Environmental Sciences in conjunction with a major program in another field for personal development or career enhancement.

The Earth and Environmental Sciences minor program consists of 1-credit integrated introductory laboratory EES 22 (Exploring Earth), plus other EES courses to bring the total earned in EES to a minimum of 15 credits. At least 8 of the 15 credits must be satisfied by taking EES courses at the 100 or higher levels. Natural science (NS) designated EES College seminars (EES 90) may be used to meet minor requirements.

Rationale : It would, at present, be possible for a student to satisfy the requirements for an EES minor by taking 5 of the EES "gateway" courses (introductory level, with no labs), which are taught largely to non-majors and delivered at relatively elementary levels. The EES faculty would like to have EES minors take at least 2 higher-level courses in the EES curriculum, ensuring greater rigor in the minor program.

Student Impact (Internal) : none

Student Impact (External) : none

Faculty Impact (Internal) : None obvious. All courses are already being delivered and this change will involve only a very small number of students (currently 3 EES minors) and thus not significantly impact enrollments in the 100 and higher level EES courses.

Faculty Impact (External) : none

University Impact : None obvious. All courses are already being delivered and this change will involve only a very small number of students (currently 3 EES minors) and thus not significantly impact enrollments in the 100- and higher-level EES courses.

Internal Approval : Yes

External Consultation : No

Environmental Studies

Submitted By : Mauro, Jessica <jfm207@lehigh.edu> on 10/28/2008 1:41:48 PM

Description : Adding new course to list of the electives.. EES 3XX Wetland science and Policy
Adding existing course to list of electives POLS 348 Land Use, Growth Management, and the Politics of Sprawl

Rationale : The new course (wetland...) and the existing course (land use...) will enrich the curriculum of the Environmental Studies BA, providing additional choices for the students to expand their knowledge in specific topics central to environmental studies.

Student Impact (Internal) : These will provide additional options for interdisciplinary courses central to Environmental Studies

Student Impact (External) : No negative student impact

Faculty Impact (Internal) : no impact

Faculty Impact (External) : none

University Impact : no negative impact. Provides a new approach to coordinating courses for interdisciplinary programs

Internal Approval : Yes

External Consultation : Yes, EI Undergraduate Curriculum committee
EI Steering Committee
EES Faculty
POLS faculty

Submitted By : Lule, Jack <jl0d@lehigh.edu> on 10/3/2008 2:58:10 PM

Description : Change in elective requirements.

Current statement reads: Advanced Coursework (2 courses, 8 credits): Two courses from the following list (other courses can be chosen in consultation with adviser).

Change will read: Advanced Coursework (2 courses, 8 credits): Two courses from the following list or other GS courses at the 200-level or above.

Rationale : Currently the catalog provides a list of possible advanced electives and adds parenthetically: "(other courses can be chosen in consultation with adviser)."

The current parenthetical statement can cause trouble for the registrar's office, which would be unaware of the accepted course. Forms must be filled out for each accepted course. The change in language removes that trouble.

Student Impact (Internal) : Students will not have to seek out advisers to take advanced Global Studies courses.

Student Impact (External) : None.

Faculty Impact (Internal) : Advisers will not have to fill out Changes in Master Schedule forms for students taking advanced Global Studies courses.

Faculty Impact (External) : None.

University Impact : None.

Internal Approval : Yes

External Consultation : Yes, N/A

Molecular Biology

Submitted By : Nyby, John G. <jgn2@lehigh.edu> on 10/29/2008 3:03:35 PM

Description : CURRENT MATH REQUIREMENTS

Math 21, 22, 23 or Math 51, 52, 43
and
Math 12 or Math 231 or Bios 130

PROPOSED CHANGES

Math 21, 22 or Math 51, 52
and
Bios 130 (with the approval of the major advisor, Bios 130 can be replaced with either Math 23 or Math 43)

Rationale : In a survey of 14 schools (Northwestern, Brandeis, BU, Princeton, U. Penn, Carnegie Mellon, Lafayette, Cornell, Penn State, Delaware, Yale, UVA, Maryland, & Dartmouth), Lehigh U. was the only school requiring 3 calculus courses for their bioscience-related degree programs. The other schools ranged from 0 to 2. These data confirmed our belief that 3 semesters of calculus are not REQUIRED for a undergraduate bioscience degree and consequently we propose to reduce the requirement to 2 courses.

The change will reduce the major requirements of this BS program by 1 course. Given the many curricular demands of this program, we see this as desirable. This change will also standardize these requirements with our other BS programs (See Proposals for BS programs in Behavioral Neuroscience and Biology).

Most Molecular Biology students will benefit more from learning descriptive and inferential statistics (BioS 130), as a basis for understanding and evaluating experimental research, than from more advanced math courses. However, some areas of biological science (i.e. manipulating genomic data bases, analyzing wave forms, modeling biological structures and processes, etc.) require an understanding of more advanced math. By allowing Math 23 or Math 43 to substitute for BioS 130, we provide a pathway to more advanced math courses (for mathematically inclined students) without increasing their major requirements. The BioS undergraduate committee felt this exception was important to make for the few students likely to want the substitution.

We will place a statement in the catalog to make students aware of this possible substitution. The substitution would require the approval of the student's major advisor. The department will also inform the registrar of substitutions on a case-by-case basis (rather than have the registrar make the substitution automatically).

Student Impact (Internal) : This change will reduce the major requirements for the BS in Molecular Biology by one course thereby increasing student curricular flexibility. Given the high curricular demands of this BS program, we see this as desirable. There are currently 21 majors in this program.

Student Impact (External) : No impact on students from other Programs

Faculty Impact (Internal) : No impact on BioS faculty

Faculty Impact (External) : This change would reduce the number of BioS students taking Math 23 and Math 43 and thus would have some impact on the Math Department.

(Including all BioS Major Programs for which we propose reduced math requirements, we estimate a reduction of approximately 5-8 students fewer in Math 23 and approximately 30-35 fewer students in Math 43 per year)

University Impact : No additional impact

Internal Approval : Yes

External Consultation : Yes, Math Dept. Wei-Min Huang, Chair; Garth Isaak, Ass't. Chair

Submitted By : Nyby, John G. <jgn2@lehigh.edu> on 10/29/2008 3:14:03 PM

Description : CURRENT BA MATH REQUIREMENT

Math 21, 22 or Math 51, 52, 43

PROPOSED CHANGE

Math 21, 22 or Math 51, 52

Rationale : This BA program should not have more stringent math requirements than proposed for the corresponding BS program (see proposal to reduce Mol Biol. BS Math requirements).

Student Impact (Internal) : This change will reduce the major requirements for the BA in Molecular Biology by one course only for students that take the Math 50 series. The requirement would remain the same for students taking the Math 20 series. There are currently 3 majors in this program.

Student Impact (External) : No impact on students from other Programs

Faculty Impact (Internal) : No impact on BioS faculty

Faculty Impact (External) : This change would reduce the number of Molecular Biology BA students taking Math 43 and thus have some impact on the Math Department.

(Including all BioS Major Programs for which we propose reduced math requirements, we estimate a reduction of approximately 5-8 students fewer in Math 23 and approximately 30-35 fewer students in Math 43 per year)

University Impact : No additional impact

Internal Approval : Yes

External Consultation : Yes, Math Dept. Wei-min Huang, chair; Garth Isaak, assistant chair

Physics

Submitted By : DeLeo, Gary <lgd0@lehigh.edu> on 10/29/2008 5:21:28 PM

Description : Change the requirements for the BA in Physics as follows:

Current Requirements:

Phy 10 or 11,13 or 21,12, 22, 31

Math 21, 22, 23, 205

Chm 30

At least one of the two advanced physics laboratories (PHY 190, PHY 262) .

A total of 18 credits of advanced physics courses (200 or 300 level). At least two of these courses must be at the 300 level.

Approved electives subject to the approval of the student's advisor...

Proposed Requirements:

Phy 10 or 11,13 or 21,12, 22, 31

Math 21, 22, 23, 205

Chm 30

At least one of the two advanced physics laboratories (PHY 190, PHY 262).

A total of 18 credits of advanced physics courses must be selected from the following list (PHY 201, 212, 213, 215, 332, 340, 342, 348, 352, 355, 362, 363, 364, 365, 369, 380).

Rationale : The proposed requirements better define advanced-level physics options, thereby facilitating the process of course selection for students and their advisors. Requirements for basic Physics, Chemistry and Mathematics courses and the advanced Physics labs remain the same. The collection of advanced physics courses, from which students choose 18 credits, covers a wide range of advanced physics topics, consistent with the more flexible nature of the BA degree. The requirement of 18 credits ensures that students receive substantial exposure to advanced-level physics. The proposed requirements also remove ambiguities present in the current description.

Student Impact (Internal) : There should be no significant impact on students since the proposed program serves to better define the BA program as it is most commonly interpreted by advisors charged with approving electives. Also, no course offerings will be changed as a consequence of the program change.

Student Impact (External) : No impact; no course offerings will be changed.

Faculty Impact (Internal) : No impact; no course offerings will be changed and no enrollment changes are expected.

Faculty Impact (External) : No impact; no course offerings will be changed and no enrollment changes are expected.

University Impact : No impact; no course offerings will be changed and no enrollment changes are expected.

Internal Approval : Yes

External Consultation : Yes, No affected departments or programs

Psychology

Submitted By : Barrett, Susan E. <seb6@lehigh.edu> on 10/31/2008 5:31:48 PM

Description : Expanding the range of courses that can be used to complete the program requirements for the B.S. in Psychology

Self and Identity (Psyc3xx) will be added to the list of seminars for the Social Psychology concentration.

Psychological Perspectives on Health and Illness in Children and Adolescents (Psyc3xx) will be added to the list of seminars for the Developmental Psychology concentration and the Clinical Psychology concentration.

Rationale : These courses are both advanced seminars and equivalent to courses that are currently listed within these concentration areas.

Student Impact (Internal) : This change will give students more options as they choose courses to complete the B.S. requirements.

Student Impact (External) : none

Faculty Impact (Internal) : none

Faculty Impact (External) : none

University Impact : none

Internal Approval : Yes

External Consultation : No

Submitted By : Ripa, Augustine <ar02@lehigh.edu> on 10/16/2008 8:18:35 PM

Description : End the college requirement for Arts & Sciences 1 and restore all undergraduate bachelor's degrees to reflect one fewer required credit (for example the BA will move from 121 credits back to 120 credits).

Rationale : In October, the college faculty voted to share undergraduate non-major academic advising among all available faculty, reducing the numbers per adviser sharply. This eliminates the need to secure registrar provided rooms, scheduling, and credit. When A&S 1 was created and required, all undergraduate degrees were increased by one credit to make room for this pass/fail experience. Without the requirement, therefore, the credit hour expectation will decrease by one credit.

The College of Arts and Sciences Policy Committee has arranged to partner with the Office of the First Year Experience in order to ensure optimal academic and non-academic assistance to our newest students.

Student Impact (Internal) : Reduced redundancy between Office of First Year Experience and Arts & Sciences faculty advising. College faculty can focus more completely on academic advising.

Student Impact (External) : N/A

Faculty Impact (Internal) : A&S faculty, by vote, will share advising for non-majors college-wide. Instead of a small number of faculty investing considerable time, most faculty will invest a modest amount.

Faculty Impact (External) : N/A

University Impact : Office of First Year Experience has agreed to partner with college in order to help create optimal advising, academic and non-academic.

Internal Approval : No

External Consultation : Yes, See University Impact