UNIVERSITY of HOUSTON
Founded 1927

COLLEGE OF NATURAL SCIENCES AND MATHEMATICS
OFFICE OF THE DEAN

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Memorandum

From: [redacted] Ian Evans, Associate Dean, NS&M

To: Marsha Daly

Subject: Clarification of Biochemistry degree changes

Date: 24 November 2008

I am forwarding information intended to clarify changes brought forward by the Biology and Biochemistry Department concerning degree changes in that program. Please note that these documents reflect the current NSM requirement of 122 hours for a bachelor's degree. As you are aware, the NSM requirement of 122 hours is being reduced to 120 hours per requirements of the legislature. These changes are currently being made by all the departments in the college and documents reflecting those changes will be forwarded to you shortly.

U N I V E R S I T Y of H

Department of Biology and Biochemistry

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MEMORANDUM

Date: November 24, 2008

To: Dr. Ian Evans, Associate Dean
College of Natural Science and Mathematics

From: Larry Rapp, Associate Chair for Undergraduate Affairs
Department of Biology and Biochemistry

RE: Clarification of Biochemistry Degree Changes

The designation of BCHS 4311 as a Writing in the Disciplines (WID) course and associated degree changes in the Biochemical and Biophysical major have already been approved by the Core Curriculum Subcommittee and are pending approval by Undergraduate Council.

A separate change in the degree to require BCHS 4307 (Proteins) has already been approved by our college's curriculum committee but it is not showing in the records of Undergraduate Council. The justification for adding BCHS to the requirements is that it is equally important subject matter to the major as the other upper-level required courses.

Attached to this memo are the current degree plan; the proposed degree plan (including changes resulting from inclusion of BCHS 4311 as a WID course; and, the URL of pages from the current online catalog where these changes are needed.

Encl: Current Biochemical and Biophysical Degree Plan
Proposed Biochemical and Biophysical Degree Plan
URLfrom the current online catalog

Courses for Bachelor of Science*, Biochemistry, starting Fall 2009

Course	*University Core Requirements*	*SCH*
ENGL 1303	English Composition I	3
ENGL 1304	English Composition II	3
HIST 1337	The United States to 1877	3
HIST 1378	The United States since 1877	3
POLS 1336	American Government: National, State, and Local	3
POLS 1337	American Government: National, State, and Local	3
Humanities	See UH Approved List	3
Social & Behavioral Science	See UH Approved List	3
Visual & Performing Arts	See UH Approved List	3
	TOTAL	**27**

Course	*Biochemistry*	*SCH*
BCHS 3201	Biochemistry Laboratory I	2
BCHS 3304	General Biochemistry I	3
BCHS 3305	General Biochemistry II	3
BCHS 4304	Biophysics	3
BCHS 4306	Nucleic Acids	3
BCHS 4307	Proteins	3
BCHS 4311	Biochemistry Laboratory II**	3
Biochemistry Electives	Nine additional hours of advanced BCHS electives	9
	TOTAL	**29**

Course	*Chemistry*	*SCH*
CHEM 1331,1111	Fundamentals of Chemistry I Lecture and Lab	4
CHEM 1332, 1112	Fundamentals of Chemistry II Lecture and Lab	4
CHEM 3331, 3221	Fundamentals of Organic Chemistry I Lecture and Lab	5
CHEM 3332, 3222	Fundamentals of Organic Chemistry II Lecture and Lab	5
Choose: CHEM 4370 OR CHEM 4373	Physical Chemistry Survey of Physical Chemistry	3
	TOTAL	**21**

Course	*Biology*	*SCH*
BIOL 1161, 1361	Introduction to Biological Science I Lecture and Lab	4
BIOL 1162, 1362	Introduction to Biological Science II Lecture and Lab	4
BIOL 3301	Genetics	3
	TOTAL	**11**

Course	*Physics*	*SCH*
Choose:		
PHYS 1301, 1101	Introductory General Physics I Lecture and Lab	
PHYS 1302, 1102	Introduction to Biological Science II Lecture and Lab	8
OR		
PHYS 1321, 1121	University Physics I Lecture and Lab	
PHYS 1322, 1122	University Physics II Lecture and Lab	
	TOTAL	**8**

Course	*Formal Sciences*	*SCH*
MATH 1431	Calculus I	4
MATH 1432	Calculus II	4
Choose one of the followings:		
MATH 2433	Calculus III	4
MATH 3338	Probability	
MATH 3397	Statistics for Scientists	
	TOTAL	**12**

Course	*NSM Capstone*	*SCH*
	Minor or other NSM Capstone Option	6
	TOTAL	**6**

Course	*Free Electives*	*SCH*
	Additional hours to complete a total of 122 hours, including at least 36 advanced hours.	8
	TOTAL	**8**

* B.A. Biochemistry degree consists of identical requirements as B.S. Biology degree, with an addition of six semester-hours of one foreign language at sophomore level or higher. Free electives are adjusted accordingly to give a total of 122 semester-hours in the B.A. Biology degree.
** Fulfills core curriculum IDO requirement for Writing in the Disciplines.

Courses for Bachelor of Science*, Biochemistry, Fall 2008

Total of 122 semester hours with 36 hours of advanced courses (3000-4000 level)

Course	*University Core Requirements*	*SCH*
ENGL 1303	English Composition I	3
ENGL 1304	English Composition II	3
HIST 1337	The United States to 1877	3
HIST 1378	The United States since 1877	3
POLS 1336	American Government: National, State, and Local	3
POLS 1337	American Government: National, State, and Local	3
Humanities	See UH Approved List	3
Social & Behavioral Science	See UH Approved List	6
Visual & Performing Arts	See UH Approved List	3
	TOTAL	**27**

Course	*Biochemistry*	*SCH*
BCHS 3201	Biochemistry Laboratory I	2
BCHS 3304	General Biochemistry I	3
BCHS 3305	General Biochemistry II	3
BCHS 4304	Biophysics	3
BCHS 4306	Nucleic Acids	3
BCHS 4311	Biochemistry Laboratory II**	3
Biochemistry Electives	Twelve additional hours of advanced BCHS electives	12
	TOTAL	**29**

Course	*Chemistry*	*SCH*
CHEM 1331,1111	Fundamentals of Chemistry I Lecture and Lab	4
CHEM 1332, 1112	Fundamentals of Chemistry II Lecture and Lab	4
CHEM 3331, 3221	Fundamentals of Organic Chemistry I Lecture and Lab	5
CHEM 3332, 3222	Fundamentals of Organic Chemistry II Lecture and Lab	5
Choose: CHEM 4370 OR CHEM 4373	Physical Chemistry Survey of Physical Chemistry	3
	TOTAL	**21**

Course	*Biology*	*SCH*
BIOL 1161, 1361	Introduction to Biological Science I Lecture and Lab	4
BIOL 1162, 1362	Introduction to Biological Science II Lecture and Lab	4
BIOL 3301	Genetics	3
	TOTAL	**11**

Course	*Physics*	*SCH*
Choose:		8
PHYS 1301, 1101	Introductory General Physics I Lecture and Lab	
PHYS 1302, 1102	Introduction to Biological Science II Lecture and Lab	
OR		
PHYS 1321, 1121	University Physics I Lecture and Lab	
PHYS 1322, 1122	University Physics II Lecture and Lab	
	TOTAL	**8**

Course	*Formal Sciences*	*SCH*
MATH 1431	Calculus I	4
MATH 1432	Calculus II	4
Choose one of the followings:		4
MATH 2433	Calculus III	
MATH 3338	Probability	
MATH 3397	Statistics for Scientists	
	TOTAL	**12**

Course	*NSM Capstone*	*SCH*
	Minor or other NSM Capstone Option	6
	TOTAL	**6**

Course	*Free Electives*	*SCH*
	Additional hours to complete a total of 122 hours, including at least 36 advanced hours.	5
	TOTAL	**5**

* B.A. Biochemistry degree consists of identical requirements as B.S. Biology degree, with an addition of six semester-hours of one foreign language at sophomore level or higher. Free electives are adjusted accordingly to give a total of 122 semester-hours in the B.A. Biology degree.
** Fulfills core curriculum IDO requirement for Writing in the Disciplines.

Biochemical and Biophysical Sciences Major

Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at the university.

Students who choose to major in biochemical and biophysical sciences must meet the general degree requirements and the college requirements for a Natural Sciences and Mathematics Bachelor of Arts or Bachelor of Science degree:

Requirements	Hours
Biology	
BIOL 1161 [1], 1162 [1], 1361 [1], 1362 [1], 3301	11
Chemistry	
CHEM 1111, 1112, 1331, 1332, 3221, 3222, 3331, and 3332	18
Mathematics/Statistics	
MATH 1431, 1432, and 2433 or BIOL 3407	12
Physics	
PHYS 1101, 1102, 1301, 1302 or 1321, 1121, 1322 and 1122	8
Physical Chemistry	
CHEM 4370 or 4373 (Completion of either CHEM 4370 or 4373 and the additional requirements in chemistry above may complete a minor in chemistry to meet the NSM Capstone requirements.)	3
Biochemical and Biophysical Sciences	
Twenty-nine semester hours which must include BCHS 3201, 3304, 3305, 4304, 4306 and 4311 and twelve additional semester hours of 4000-level BCHS courses. Senior Honors Thesis and Special Problems courses ordinarily will not apply toward this total.	29

nsm/biol_dept.html#nsm_BBS_maj