



UNIVERSITY of HOUSTON

COLLEGE OF NATURAL SCIENCES AND MATHEMATICS
OFFICE OF THE DEAN

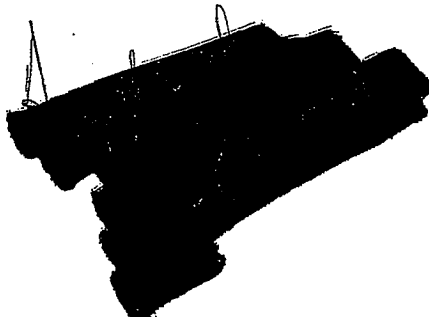
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APPROVED APR 18 2007

MEMORANDUM

TO: Marsha Daly
FROM: Valerie Gudell, NSM [REDACTED]
RE: Geosciences Proposal
DATE: February 19, 2007

I've enclosed the original proposal from our Geosciences department for consideration at the next UG Council meeting. Please feel free to contact me with any questions that you may have (3-2614, vgudell@uh.edu).



September 25, 2006

From: William R. Dupre'
To: NSM Curriculum Committee
Re: Proposed changes in Geoscience courses and degree requirements

The Geoscience Department has made several course changes that affect degree programs and suggest course sequences. A summary of these changes is as follows:

A. Drop the following required courses:

- 1) **Rocks and Minerals** (GEOL3325); replace with Petrography (GEOL3372 – new course)
- 2) **Petrogenesis** (GEOL3335); replace with two courses – Igneous & Metamorphic Petrogenesis (GEOL3373-new course) and Sedimentary Petrogenesis (GEOL3374-new course)
- 3) **Optical Mineralogy** (GEOL3371); content included in new courses.

B. Change pre-requisites of the following courses so they can be taken earlier by students:

- 1) **Mineralogy** (GEOL3370); require GEOL1130,1330 rather than GEOL 3325
- 2) **Paleobiology** (GEOL3330); require GEOL1130,1330 rather than GEOL 3325

C. Change requirements for degrees to reflect these changes:

- 1) **BS Geology**: replace required GEOL 3325, 3371, and 3335 with GEOL 3372, 3373, and 3374.
- 2) **BS Geophysics**: replace required GEOL 3325 with GEOL 3372.
- 3) **BA Earth Science**: replace required GEOL 3325 with GEOL 3372. Add GEOL 3370 as a requirement. Reduces GEOS electives from 10 to 7. [Note: GEOL 3370 previously was "*highly recommended*"]

Suggested catalogue changes and suggested sequences follow:

Geology Major:

from:

Geology

GEOL 1130, 1330, 3130, 3145, 3150, 3325, 40
3330, 3335, 3340, 3345, 3350, 3355, 3360,
3370, 3371, and 4330

to:

Geology

GEOL 1130, 1330, 3130, 3145, 3150, ~~3325,~~ 40
3330, ~~3335,~~ 3340, 3345, 3350, 3355, 3360,
3370, ~~3371,~~ 3372, 3373, 3374 and 4330

Geophysics Major:

from:

Geology

GEOL 1130, 1330, 3145, 3150, 3325, 3340, 24
3345, 3350, 3370, 4330

to:

Geology

GEOL 1130, 1330, 3145, 3150, ~~3325,~~ 3340, 24
3345, 3350, 3370, 3372, and 4330

Earth Science Major

from:

Geology

Geol 1130, 1176, 1330, 1376, 3177, 3178, 32
3325, 3340, 3377, and 3378, and 10
 additional hours, of which 5 must be
 advanced. GEOL 3370 is highly
 recommended.

to:

Geology

Geol 1130, 1176, 1330, 1376, 3177, 3178, 32
3325, 3340, 3370, 3372, 3377, and 3378, and
~~10-7~~ additional hours, of which ~~5~~ 3 must be
 advanced. ~~GEOL 3370~~ is highly
 recommended.

Suggested Program - Bachelor of Science in Geology

FIRST YEAR

	Hours
Fall Semester	
ENGL 1303. Freshman Composition I	3
CHEM 1331 and 1111. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
GEOL 1330 and 1130. Physical Geology and Physical Geology Laboratory	4
MATH 1431. Calculus I	4
Total	15

	Hours
Spring Semester	
ENGL 1304. Freshman Composition II	3
CHEM 1332 and 1112. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
MATH 1432. Calculus II	4
Elective (recommended - GEOL 1376, 1176)	4
Total	15

SECOND YEAR

	Hours
Fall Semester	
GEOL 3370. Mineralogy	3
GEOL 3330 and 3130. Principles of Paleobiology and Paleobiology Laboratory	4
PHYS 1321 and 1121. University Physics I and Laboratory	4
MATH 2433. Calculus III	4
Total	15

	Hours
Spring Semester	
GEOL 3372. Petrography	3
GEOL 3340. Geologic Field Methods	3
PHYS 1322 and 1112. University Physics II and Laboratory	4
Visual and Performing Arts Core	3
Social Sciences Core Writing Intensive	3
Total	16

THIRD YEAR

	Hours
Fall Semester	
GEOL 3373. Igneous & Metamorphic Petrogenesis	3
GEOL 3350 and 3150. Principles of Stratigraphy and Principles of Stratigraphy Laboratory	4
Social and Behavioral Science Core	3
GEOL 4330 Introduction to Geophysics	3
HIST 1376 or 1377. The United States to 1877 or equivalent	3
Total	16

	Hours
Spring Semester	
GEOL 3345 and 3145. Structural Geology and Structural Geology Laboratory	4
GEOL 3374. Sedimentary Petrogenesis	3
HIST 1378 or 1379. The United States since 1877 or equivalent	3
Approved elective	3
Total	13

	Hours
Summer Session	

GEOL 3355 and 3360. Field Geology	6
Total	6

FOURTH YEAR

	Hours
Fall Semester	
Approved elective	3
Geosciences elective (3000 or 4000 level)	3
POLS 1336. U. S. and Texas Constitutions and Politics or equivalent	3
Approved elective	3
Total	12

	Hours
Spring Semester	
Geosciences elective (3000 or 4000 level)	3
POLS 1337. U.S. Government: Congress, President and Courts or equivalent	3
Approved elective	3
Approved elective	3
Total	12

Bachelor of Science in Geophysics - Suggested Program

FIRST YEAR

	Hours
Fall Semester	
ENGL 1303. Freshman Composition I	3
CHEM 1331 and 1111. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
GEOL 1330 and 1130. Physical Geology and Physical Geology Laboratory	4
MATH 1431. Calculus I	4
Total	15

	Hours
Spring Semester	
ENGL 1304. Freshman Composition II	3
CHEM 1332 and 1112. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
MATH 1432. Calculus II	4
Social and Behavioral Sciences core	3
Total	14

SECOND YEAR

	Hours
Fall Semester	
GEOL 3370. Mineralogy	3
MATH 2433. Calculus III	4
PHYS 1321. University Physics I	3
PHYS 1121. Physics I Laboratory	1
Social Sciences Core Writing Intensive	3
Visual/Performing Arts Core	3
Total	17

	Hours
Spring Semester	
GEOL 3340. Geologic Field Methods	3
GEOL 3372. Petrography	3
MATH 3321. Engineering Math	3
PHYS 1322. University Physics II	3
PHYS 1122. Physics Laboratory II	1
Humanities Core	3

Total **16**

THIRD YEAR

Fall Semester	Hours
GEOL 4330. Introduction to Geophysics	3
GEOL 3350 and 3150. Principles of Stratigraphy and Principles of Stratigraphy Laboratory	4
MATH 3363. Introduction to Partial Differential Equations	3
HIST 1376 or 1377. The United States to 1877 or equivalent	3
Total	13

Spring Semester	Hours
GEOL 3345 and 3145. Structural Geology and Structural Geology Laboratory	4
Geophysics Elective (3000 or 4000 level)	3
MATH 3364. Introduction to Complex Analysis	3
HIST 1378 or 1379. The United States since 1877 or equivalent	3
Approved Elective	3
Total	16

FOURTH YEAR

Fall Semester	Hours
Geology-Geophysics Elective (3000 or 4000 level)	3
Geophysics Elective (3000 or 4000 level)	3
POLS 1336. U.S. and Texas Constitutions and Politics or equivalent	3
Approved Elective (NSM Capstone Requirement)	3
Approved Elective	3
Total	15

Spring Semester	Hours
Geology-Geophysics Elective (3000 or 4000 level)	3
Geophysics Electives (3000 or 4000 level)	6
POLS 1337. U.S. Government: Congress, President and Courts or equivalent	3
Approved Elective (NSM Capstone Requirement)	3
Total	15

Bachelor of Arts in Earth Science - Suggested Program

First Year

Fall Semester	Hours
ENGL 1303. Freshman Composition I	3
HIST 1376 or 1376. The United States to 1877 or equivalent	3
GEOL 1330 and 1130. Physical Geology and Physical Geology Laboratory	4
MATH 1310 College Algebra	3
CHEM 1331 and 1111. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
Total	17

Spring Semester	Hours
ENGL 1304. Freshman Composition II	3
HIST 1378 or 1379. The United States since 1877 or equivalent	3
GEOL 1376 and 1176. Historical Geology and Historical Geology Laboratory	4

MATH 1330. Elementary Functions	3
CHEM 1332 and 1112. Fundamentals of Chemistry and Fundamentals of Chemistry Laboratory	4
Total	17

Second Year

Fall Semester	Hours
Foreign Language 2000-level	3
GEOL 3370. Mineralogy	3
POLS 1336. U.S. and Texas Constitutions and Politics or Equivalent	3
Visual and Performing Arts Core	3
Approved Elective	3
Total	15

Spring Semester	Hours
POLS 1337. U.S. Government: Congress, President and Courts or equivalent	3
GEOL 3340. Geologic Field Methods	3
GEOL 3372. Petrography	3
Foreign Language 2000-level	3
Humanities Core Course	3
Total	15

Third Year

Fall Semester	Hours
PHYS 1301 and 1101. Introductory General Physics and Introductory General Physics Laboratory	4
GEOL 3377 and 3177. Introductory Oceanography and Oceanography Laboratory	4
Approved GEOL Elective	1
Social Sciences Core	3
Approved Elective	3
Total	15

Spring Semester	Hours
PHYS 1302 and 1102. Introductory General Physics and Introductory General Physics Laboratory	4
Social Sciences Writing Intensive Core	3
GEOL 3378 and 3178. Introduction to Atmospheric Science And Weather Information	4
Approved Elective	3
Total	14

Fourth Year

Fall Semester	Hours
BIOL 1431. Introduction to Biological Science	4
Approved GEOL Elective (Advanced)	3
Approved Elective (Advanced) (NSM Capstone Requirement)	3
Approved Elective (Advanced)	3
Total	13

Spring Semester	Hours
BIOL 1432. Introduction to Biological Science	4
Approved GEOL Elective (Advanced)	3
Approved Elective (Advanced) (NSM Capstone Requirement)	3
Approved Elective (Advanced)	3
Total	13