

## DOCUMENTS OF THE GENERAL FACULTY

**PROPOSAL TO CHANGE THE PRE-HEALTH PROFESSIONS CERTIFICATE IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE *UNDERGRADUATE CATALOG, 2016-2018***

Dean Linda Hicke, in the College of Natural Sciences has filed with the secretary of the Faculty Council the following changes to the Pre-health Professions Certificate in the *Undergraduate Catalog, 2016-2018*. On September 16, 2015, the college faculty approved the proposal, and on September 28, 2015, Associate Dean David Vanden Bout approved it on behalf of the college and the dean. The secretary has classified this proposal as legislation of *general* interest to more than one college or school.

The Committee on Undergraduate Degree Program Review recommended approval of the changes on November 18, 2015, and forwarded them to the Office of the General Faculty. The Faculty Council has the authority to approve this legislation on behalf of the General Faculty. The authority to grant final approval on this legislation resides with UT System.

If no objection is filed with the Office of the General Faculty by the date specified below, the legislation will be held to have been approved by the Faculty Council. If an objection is filed within the prescribed period, the legislation will be presented to the Faculty Council at its next meeting. The objection, with reasons, must be signed by a member of the Faculty Council.

To be counted, a protest must be received in the Office of the General Faculty by December 11, 2015.



Hillary Hart, Secretary  
General Faculty and Faculty Council

**PROPOSAL TO CHANGE THE PRE-HEALTH PROFESSIONS CERTIFICATE IN THE COLLEGE  
OF NATURAL SCIENCES CHAPTER IN THE *UNDERGRADUATE CATALOG, 2016-2018***

1. **Type of Proposal**  New Certificate Program (requiring THECB notification only)  
 Change an Existing Certificate Program  
 Delete a Program

**Proposed classification**  Exclusive  General  Major

2. **THIS PROPOSAL INVOLVES (Please check all that apply)**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Courses in other colleges                               | <input checked="" type="checkbox"/> Courses in proposer's college that are frequently taken by students in other colleges                      | <input type="checkbox"/> Flags   |
| <input type="checkbox"/> Course in the core curriculum                           | <input type="checkbox"/> Change in course sequencing for an existing program   | <input checked="" type="checkbox"/> Courses that have to be added to the inventory   |
| <input type="checkbox"/> Change in admission requirements (external or internal) | <input type="checkbox"/> Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office) | <input checked="" type="checkbox"/> Other: Rearrangement of science track to clarify original intent; rearrangement of non-science major track to clarify how courses apply toward specific health profession preparations; these changes were reviewed by the Health Professions Office |

3. **SCOPE OF PROPOSED CHANGE**

- a. Does this proposal impact other colleges/schools? Yes  No   
 There will be a slight change to the qualifications for applying to be in the Pre-Health Professions certificate that is of interest to colleges that contain pre-health professions students. ? The change will enable more students outside of natural Sciences to qualify for admission to the Pre-Health Professions Certificate. We do not know how many that will be.
- b. Do you anticipate a net change in the number of students in your college? Yes  No   
 If yes, how many more (or fewer) students do you expect?
- c. Do you anticipate a net increase (or decrease) in the number of students from outside of your college taking classes in your college? Yes  No   
 If yes, please indicate the number of students and/or class seats involved.
- d. Do you anticipate a net increase (or decrease) in the number of students from your college taking courses in other colleges? Yes  No   
 If yes, please indicate the number of students and/or class seats involved.

**If 3 a, b, c, or d was answered with yes, please answer the following questions. If the proposal has potential budgetary impacts for another college/school, such as requiring new sections or a non-negligible increase in the number of seats offered, at least one contact must be at the college-level.**

How many students do you expect to be impacted

Impacted schools must be contacted and their response(s) included:

4. **Official Certificate Name:** Pre-Health Professions Certificate

5. **Proposed Implementation Date:** N/A

6. **CIP Code** (administrative unit awarding the certificate): N/A

7. **Statement of Objective:**  
N/A

8. **Number of Students Expected to Receive the Certificate Each Semester:** N/A

9. **Number of Hours Required for Completion:**<sup>1</sup> Eighteen hours.

10. **List Faculty on the Certificate Program Faculty Committee.** N/A

11. **Academic Course Requirements:** Use this table to identify the courses that qualify for this certificate program.

Course Abbreviation and Number	Course Title	SCH <sup>2</sup>
CH 302	Principles of Chemistry I # # CH 301 or 302H; M 305G or SDS 302 or one of the following: M 408C, 408D, 408K, 408L, 408M, 408N, 408R, 408S	3
M 408R	Differential and Integral Calculus for the Sciences # # an appropriate score on the mathematics placement exam	3
NTR 306	Fundamentals of Nutrition	3
BIO 326R	General Microbiology # # Credit or registration for BIO 325 or 325H and CH 302 or 302H	3
SDS 302	Data Analysis for the Health Sciences	3

12. **Other Certificate Requirements:** N/A

13. **Give a Detailed Rationale for Change(s):**

Science Major Track

- 1) Removal of the statement that half of the science major track is one half science and one half coursework in themes related to healthcare. Rewrite the science major track to state that nine to eighteen hours of the certificate may be chosen from themes related to healthcare, rather than content in biochemistry, biology, chemistry, physics, and statistics.  
**Rationale:** The original intent of the certificate was designed to encourage science majors to take coursework related to healthcare that is outside biochemistry, biology, chemistry, physics, and statistics coursework, while allowing up to nine hours from these areas. Removing the statement and rewording the science major track requirements will clarify this intention. In practice, some amount of overrides will need to be completed on the credential for individual students due to limitations of how the audit functions. However, the certificate language will be correct.
- 2) Addition of NTR 306 to the nutrition healthcare theme.  
**Rationale:** NTR 306 is the introductory course taken by non-nutrition majors. It is entirely appropriate to apply to the certificate.
- 3) Addition of a statement that upper-division coursework in biochemistry, biology, and chemistry approved by the certificate advisor may be applied toward the maximum of nine hours in science coursework.  
**Rationale:** Depending on a student's major, he or she may not have 9 hours of introductory science coursework listed in the certificate, but may have additional upper-division science coursework already completed. The statement allows the flexibility to apply other significant science coursework toward the certificate.

Non-science Major Track

- 1) Change admission to the certificate to require a minimum grade of *B-* in either CH 301 or CH 302. Add M 408R as an alternative to M 408C, 408K, or 408N.  
**Rationale:** Previously, the certificate required a minimum grade of *B-* in CH 301. Some first-year students taking CH 301 in the fall semester had difficulties adjusting to college-level courses. Allowing either CH 301 or 302 with a grade of at least *B-* provides the opportunity for first-year

students to learn from their fall semester experiences and to apply these lessons to their spring semesters. This change will result in an increase of students eligible to pursue the Pre-Health Professions Certificate.

M 408R is a terminal calculus course designed for students pursuing the health professions.

- 2) Rewrite and reorganize certificate requirements to state the pre-health professions requirements explicitly for various types of healthcare fields.

**Rationale:** Previously, students in the non-science major track completed eighteen hours from the same set of courses. However, pre-health professions preparation was not always identical to the 18 hours available for enrollment. In addition, the advanced coursework available to those who completed the certificate was listed separately. The certificate will now be customized depending on the specific set of pre-health professions coursework.

- 3) The pre-physician assistant and pre-pharmacy certificate coursework will require one or two additional hours of coursework approved by the certificate advisor.

**Rationale:** As a consequence of customizing the certificate requirements according to what is actually needed for entry into these fields, the total hours in pre-physician assistant and pre-pharmacy preparation fall short of the eighteen hours by one or two hours. The certificate advisor will approve hours from one of the courses listed in the advanced coursework to satisfy the certificate. If a student chooses not to enroll in any advanced courses, the certificate advisor will determine alternate hours chosen from previously completed coursework.

- 4) Replace M 316 with SDS 302.

**Rationale:** The Health Professions Office successfully negotiated with the professional schools to accept SDS 302, taught regularly, for M 316, no longer taught in residence.

- 5) Replace BIO 326M with BIO 326R.

**Rationale:** The Department of Molecular Biosciences is restricting enrollment in BIO 326M to nursing, medical laboratory science, and public health majors. All other students needing a microbiology requirement will enroll in BIO 326R. However, if a student has already completed BIO 326M, he or she will not be required to take BIO 326R.

#### 14. College/School Approval Process:

College Approval Date: September 16, 2015

Approver: David Vanden Bout

Title: Associate Dean for Undergraduate Education

Date: September 28, 2015

#### PROPOSED NEW CATALOG TEXT:

##### Pre-Health Professions Certificate

The Pre-Health Professions Certificate assists students in preparing for post-baccalaureate, healthcare professional programs.

Students are encouraged to work closely with the Health Professions Office to select healthcare themes relevant to their professional career goals. Some of the courses may contain prerequisites that are in addition to the coursework for the certificate.

Majors in the College of Natural Sciences must seek the Science Major Track. ~~The composition of the science major track is one-half science coursework and one-half coursework from a theme related to healthcare.~~ No admission to the track is required.

Majors outside of the College of Natural Sciences must seek the Non-Science Major Track. The composition of the non-science major track is science coursework necessary for admission to post-baccalaureate, healthcare professional programs. Non-science majors may apply to the certificate program upon completion of the following courses with grades of at least B-: Chemistry 301 or 302, and ~~completion of~~ one of the following: Statistics and Data Sciences 302, Mathematics 408C, 408K, ~~or~~ 408N, or 408R. Upon admission, the ability to progress in the certificate is dependent on completion of the certificate courses with satisfactory

grades. Non-science majors who complete the certificate may be eligible to enroll in select upper-division courses necessary for application to the health professions programs to which they are applying.

Students must contact the dean's office in the College of Natural Sciences to request the certificate during the semester in which they are completing the requirements. The certificate consists of a minimum of eighteen hours. Each course presented for the certificate must be completed with a grade of at least C-.

### [Science Major Track

1. Complete up to nine hours chosen from the following:
  - a. Biochemistry and Chemistry: Chemistry 220C, 320M, 320N, and Biochemistry 369
  - b. Biology: Biology 311C, 311D, and 206L
  - c. Physics: Physics 302K, 102M, 302L, 102N; 317K, 117M, 317L, 117N; 301, 101L, 316, 116L; 303K, 103M, 303L, 103N.
  - d. Statistics: One of the following courses: Mathematics 316, Statistics and Data Sciences 302, 304, 306, or 328M.
2. Complete a minimum of nine hours chosen from the following themes relevant to healthcare:
  - a. Cultural Awareness:
    - i. Anthropology 322M (Topic 5: *Indians of Mexico and Guatemala*)
    - ii. Asian American Studies 301 and Asian American Studies 310 (Topic 1: *Psychological Perspectives on Asian American Identity*)
    - iii. African and African Diaspora Studies 301
    - iv. Latin American Studies 324L (Topic 16: *Mexican Immigration Cultural History*)
    - v. Mexican American Studies 307
    - vi. Middle Eastern Studies 301L
  - b. Health and Anatomy:
    - i. Classical Civilization 306M
    - ii. Educational Psychology 363 (Topic 3: *Human Sexuality*) or Health Education 366.
    - iii. Health Education 335, 343, 352K, 370K, and 373
    - iv. Kinesiology 320, 324K, 325K, and 326K
    - v. Psychology 301, 308, 332C, Psychology 341K (Topic 4: *Health Psychology*), Psychology 346K, and Psychology 353K.
  - c. Healthcare Policy:
    - i. Communication Studies 322E
    - ii. History 350R (Topic 18: *Women in Sickness and Health*)
    - iii. Philosophy 325M
    - iv. Nursing 309 and Nursing 321
    - v. Sociology 307M, 319, 336D, 354K, 358D, 368D, and 369K
    - vi. Urban Studies 350 (Topic: *Human Health and the Environment*)
    - vii. *Geography 357*
    - viii. *Public Health 317*
  - d. Human and Societal Development:
    - i. Communication Studies 310K and 322E.
    - ii. Educational Psychology 369K (Topic 10: *Educational Neuroscience*).
    - iii. Human Development and Family Sciences 304, 313, 335, 342, 351, and 378K (Topic: *Biobehavioral Health Processes Across the Family*).
    - iv. Nursing 310.
    - v. Psychology 301, 308, 332C, 341K (Topic 4: *Health Psychology*), and 346K.
    - vi. Sociology 302 and 330C.
  - e. Nutrition:
    - i. Communication Studies 322E
    - ii. History 350R (Topic 5: *American Cultural History of Alcohol and Drugs*)
    - iii. Nutrition 312, 218, 326, and 331]

### Science Major Track

1. Complete ~~[a minimum of nine]~~ eighteen hours chosen from the following themes relevant to healthcare. ~~[=] Students pursuing the science major track may substitute a maximum of nine hours chosen from the optional lists that follow requirement 1.~~
- a. Cultural Awareness:
    - i. Anthropology 322M (Topic 5: *Indians of Mexico and Guatemala*)
    - ii. Asian American Studies 301 and Asian American Studies 310 (Topic 1: *Psychological Perspectives on Asian American Identity*)
    - iii. African and African Diaspora Studies 301
    - iv. Latin American Studies 324L (Topic 16: *Mexican Immigration Cultural History*)
    - v. Mexican American Studies 307
    - vi. Middle Eastern Studies 301L
  - b. Health and Anatomy:
    - i. Classical Civilization 306M
    - ii. Educational Psychology 363 (Topic 3: *Human Sexuality*) or Health Education 366.
    - iii. Health Education 335, 343, 352K, 370K, and 373
    - iv. Kinesiology 320, 324K, 325K, and 326K
    - v. Psychology 301, 308, 332C, Psychology 341K (Topic 4: *Health Psychology*), Psychology 346K, and Psychology 353K.
  - c. Healthcare Policy:
    - i. Communication Studies 322E
    - ii. History 350R (Topic 18: *Women in Sickness and Health*)
    - iii. Philosophy 325M
    - iv. Nursing 309 and Nursing 321
    - v. Sociology 307M, 319, 336D, 354K, 358D, 368D, and 369K
    - vi. Urban Studies 350 (Topic: *Human Health and the Environment*)
    - vii. *Geography 357*
    - viii. *Public Health 317*
  - d. Human and Societal Development:
    - i. Communication Studies 310K and 322E.
    - ii. Educational Psychology 369K (Topic 10: *Educational Neuroscience*).
    - iii. Human Development and Family Sciences 304, 313, 335, 342, 351, and 378K (Topic: *Biobehavioral Health Processes Across the Family*).
    - iv. Nursing 310.
    - v. Psychology 301, 308, 332C, 341K (Topic 4: *Health Psychology*), and 346K.
    - vi. Sociology 302 and 330C.
  - e. Nutrition:
    - i. Communication Studies 322E
    - ii. History 350R (Topic 5: *American Cultural History of Alcohol and Drugs*)
    - iii. Nutrition 306, 312, 218, 326, and 331

Optional: If additional hours are needed to complete the eighteen hours required for the certificate, [Complete up to] a maximum of nine hours chosen from the following may be applied to the science major track.

Biochemistry and Chemistry: Chemistry 220C, 320M, 320N, and Biochemistry 369.

Biology: Biology 311C, 311D, and 206L.

Physics: Physics 302K, 102M, 302L, 102N; 317K, 117M, 317L, 117N; 301, 101L, 316, 116L; 303K, 103M, 303L, 103N.

Statistics: One of the following courses: Mathematics 316, Statistics and Data Sciences 302, 304, 306, or 328M.

Additional upper-division coursework in biochemistry, biology, and chemistry by approval of the undergraduate certificate adviser.

**[Non-science Major Track**

1. Complete a minimum of eighteen hours from the following:
  - a. Biology: Biology 311C, 311D, and 206L
  - b. Chemistry: Chemistry 302 and Chemistry 204.
  - c. Physics: Physics 302K, 102M, 302L, and 102N. The following physics sequences may substitute if they are already completed: Physics 317K, 117M, 317L, and 117N; Physics 301, 101L, 316, and 116L; Physics 303K, 103M, 303L, and 103N.
  
2. Students who successfully complete the Non-Science Major Track in requirement 1 will be eligible to enroll in the following courses according to the professional field they intend to enter. These additional courses are not required to earn the Pre-Health Professions Certificate.
  - a. Pre-dental preparation: Biochemistry 369; Biology 320, 325, 326M; Chemistry 320M, 320N, 220C
  - b. Pre-medical preparation: Biochemistry 369; Biology 320, 325; Chemistry 320M, 320N, 220C
  - c. Pre-occupational therapy preparation: Biology 325, 446L, 365S, 165U; Mathematics 316
  - d. Pre-optometry preparation: Biochemistry 369; Biology 325, 326M, 226L, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316
  - e. Pre-physical therapy preparation: Biology 325, 446L, 365S, 165U; Mathematics 316
  - f. Pre-physician assistant preparation: Biochemistry 369; Biology 320, 325, 326M, 226L, 344, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316; Nutrition 306.
  - g. Pre-pharmacy preparation: Biology 325, 326M, 226L, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316
  - h. Pre-veterinary preparation: Biochemistry 369; Biology 325, 326R, 226L, 344; Statistics and Data Sciences 321 or 328M]

**Non-science Major Track**

1. Complete eighteen hours from one of the following areas of health professions preparation, chosen from ai through hi. Upon completion of the certificate, students may enroll in the advanced coursework associated with their introductory preparation, chosen from aii through hii.
  - a. Pre-dental preparation:
    - i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Physics 302K, 102M, 302L, 102N \*.
    - ii. Advanced coursework: Biochemistry 369; Biology 320, 325, ~~326M~~ 326R \*\*;  
Chemistry 320M, 320N, 220C.
  
  - b. Pre-medical preparation:
    - i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Physics 302K, 102M, 302L, 102N \*.
    - ii. Advanced coursework: Biochemistry 369; Biology 320, 325, 326R \*\*; Chemistry 320M, 320N, 220C.
  
  - c. Pre-occupational therapy preparation:
    - i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Statistics and Data Sciences 302; ~~Mathematics 316~~; Physics 302K, 102M \*, and one hour of additional coursework approved by the certificate advisor.
    - ii. Advanced coursework: Biology 325, 446L, 365S, 165U.
  
  - d. Pre-optometry preparation:
    - i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Physics 302K, 102M, 302L, and 102N \*.
    - ii. Advanced coursework: Biochemistry 369; Biology 325, ~~326M~~, 226L, 326R \*\*, 446L, 365S, 165U; Chemistry 320M, 320N, and 220C.

- e. Pre-physical therapy preparation:
- i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Statistics and Data Sciences 302 ~~Mathematics 316~~; Physics 302K, 102M, 302L, and 102N \*.
  - ii. Advanced coursework: Biology 325, 446L, 365S, 165U.
- f. Pre-physician assistant preparation:
- i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Statistics and Data Sciences 302 ~~Mathematics 316~~; Nutrition 306, and two hours of additional coursework approved by the certificate advisor.
  - ii. Advanced coursework: Biochemistry 369; Biology 320, 325, ~~326M~~, 226L, 326R\*\*, 344, 446L, 365S, 165U; Chemistry 320M, 320N, 220C.
- g. Pre-pharmacy preparation:
- i. Introductory coursework: Biology 311C, 311D, 206L; Chemistry 204; Statistics and Data Sciences 302 ~~Mathematics 316~~; Physics 302K, 102N \*, and one hour of additional coursework approved by the certificate advisor.
  - ii. Advanced coursework: Biology 325, ~~326M~~, 226L, 326R\*\*, 446L, 365S, 165U; Chemistry 320M, 320N, 220C.
- h. Pre-veterinary preparation:
- i. Certificate coursework: Biology 311C, 311D, 206L; Chemistry 204; Physics 302K, 102M, 302L, 102N \*.
  - ii. Advanced coursework: Biochemistry 369; Biology 325, 326R, 226L, 344; Statistics and Data Sciences 321 or 328M.
- a. \* A completed calculus-based physics sequence may substitute for the purposes of earning the certificate.  
\*\* Previously completed Biology 326M may substitute for Biology 326R.

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<sup>1</sup> See footnote 1b above: 18-24 hours are required.

<sup>2</sup> Semester Credit Hours.