#### OFFICE OF THE FACULTY COUNCIL.



## THE UNIVERSITY OF TEXAS AT AUSTIN

P. O. BOX 7816 • Austin, TX 78713-7816 (512) 471-5934 • Fax: (512) 471-5984 • http://www.utexas.edu/faculty/council

March 16, 2018

Provost Maurie McInnis
The University of Texas at Austin
MAI 201
Campus Mail Code: G1000

Dear Provost McInnis,

Enclosed for your consideration and action are proposed changes to the College of Natural Sciences Chapter of the *Undergraduate Catalog*, 2018-2020. The proposals are classified as being of *general* interest to more than one college or school and were approved by the Faculty Council on a no-protest basis on March 15, 2018. The authority to grant final approval of this legislation resides with your office on behalf of the President.

- Proposed changes to the BS in Medical Laboratory Science Degree Program (D 15924-15927)
- Proposed changes to the Pre-Health Professions Certificate (D 15942-15950)
- Proposed changes to the Minors and Certificate Programs Section (D 15951-15953)
- Proposed changes to the BS in Astronomy Degree Program (D 15954-15957)
- Proposed changes to the BS in Biochemistry Degree Program (D 15958-15962)
- Proposed changes to the BS in Biology Degree Program (D 15963-15972)
- Proposed changes to the BS in Chemistry Degree Program (D 15973-15978)
- Proposed changes to the BS in Computer Science Degree Program (D 15979-15983)
- Proposed changes to the BS in Human Development and Family Sciences Degree Program (D 15984-15991)
- Proposed changes to the BS in Neuroscience Degree Program (D 15992-15997)
- Proposed changes to the BS in Mathematics Degree Program (D 15998-16004)
- Proposed changes to the BS in Nutrition Degree Program (D 16005-16009)
- Proposed changes to the BS in Public Health Degree Program (D 16010-16016)
- Proposed changes to the BS in Physics Degree Program (D 16017-16021)

Please let me know if you have questions or if I can provide other information concerning this item.

Sincerely, Clay W. Driekwan

Alan W. Friedman, Secretary

General Faculty and Faculty Council

The University of Texas at Austin

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

AWF:dlr Enclosures

ec: Lydia A. Cornell, Administrative Program Coordinator, Provost's Office
 Michelle K. George, Administrative Manager for Faculty Affairs, Provost's Office
 David Vanden Bout, Associate Dean for Undergraduate Education, College of Natural Sciences
 Judith M. Quinney, Manager for College of Natural Sciences Records Office

## DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Medical Laboratory Science degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On September 13, 2017, the Program Director, the Course and Curriculum Committee, and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved the proposal. The Secretary has classified this proposal as legislation of exclusive interest to one college or school.

The Committee on Undergraduate Degree Program Review recommended approval of the proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 8, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Тур	Sype of Change          ☐ Academic Change         ☐ Degree Program Change (THECB form required)									
Pro	posed classifica	tion	Exclusi	ve 🔲	General	☐ Major				
1.	<ul><li> Is this prog</li><li> Does the programmer</li></ul>	NDA IF SA w deg gram b rograr	DICKENS, ACSCOC A ree program eing deleted	DIRECTO PPROVA ? ? ses that wil	OR OF AOL IS REQ	CCREDITATI UIRED.  off campus?	ION AND Ye Ye Ye		SSMENT,  o ⊠  o ⊠  o ⊠	
2.	EXPLAIN CH EACH INDIV Change BIO 16 Reason: The do	IDUA	L CHANGE BIO 260L.	<b>E</b> :						
3.	Course in curriculu	in oth  n the committee in adm	er colleges core	Ccare	ourses in pre- te frequently her college hange in co- existing pre- equirement talog langu	roposer's collegy taken by stud s urse sequencing rogram s not explicit in lage (e.g., lists burses maintain	ents in  g for  the  of	☐ Co	ags ourses that h lded to the in	
4.	If yes, then b. Do you and If yes, how c. Do you and taking clas If yes, plea d. Do you and courses in a If yes, plea  If 4 a, b, c, or c potential budg negligible incre How many Impacted s Person	oropos how icipat many icipat ses in ise ind icipat other ise ind d was retary ease in stude chools a comi	al impact off would you d e a net chang more (or fe e a net incre: your college icate the nur e a net incre: colleges? icate the nur answered w impacts for n the number	her college lo so? ge in the nu ewer) stude ase (or dec ? mber of stu ase (or dec mber of stu vith yes, pl another c er of seats expect to be ntacted and ith:	umber of st nts do you rease) in the dents and/orease) in the dents and/orease answ college/sch offered, are impacted	or class seats in the number of state number of state or class seats in the following ool, such as rettleast one con	nvolved.  udents fro  Ye nvolved.  ng question equiring netact must	om outs om your s  N ons. If t	Yes  No  \( \bigce \) \[ \text{r college} \) \[ \text{tak} \] \[ \text{che proposa} \] \[ \text{tions or a n} \]	college ing l has

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: September 13, 2017 Leanne Field, Program Director
College approval date: September 13, 2017 Course and Curriculum Committee
Dean approval date: September 13, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

# BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE

{no change}

#### **Prescribed Work**

In the process of fulfilling degree requirements, all students must complete:

- 1. Core curriculum
- 2. Skills and experience flags:
  - a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
  - b. Quantitative reasoning: one flagged course
  - c. Global cultures: one flagged course
  - d. Cultural diversity in the United States: one flagged course
  - e. Ethics and leadership: one flagged course
  - f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the *Course Schedule*. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisers.

- 3. One of the following foreign language/culture choices:
  - a. Beginning level proficiency coursework, or the equivalent, in a foreign language.
  - b. First course in a foreign language and a three-semester-hour course in the culture of the same language area.
  - c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
- 4. Mathematics 408C or 408N, and Statistics and Data Sciences 304 or 328M
- 5. Either Biology 311C, 311D, and 325, or Biology 315H and 325H
- 6. Biology 226L, 326M, 330 or 446L, 344 or 366R, 360K, <u>260L</u>, [<del>160L,</del>] 361, 361L, and 365S
- 7. Chemistry 301 or 301H, 302 or 302H, 204, 220C, 320M, 320N, and Biochemistry 369
- 8. Computer Science 303E, Management Information Systems 302F, or Public Health 323
- 9. Enough additional elective coursework, if necessary, to make a total of at least 100 semester hours of academic work completed at the University before the clinical education program.

10. Twelve to sixteen [16] months of clinical education in a program of medical laboratory science (or clinical laboratory science) accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The student must apply to and be accepted into a clinical education program. The clinical education program director works closely with each student to ensure his or her success in the program. Upon completion of the clinical education program, the student must submit a letter from the program director verifying completion of coursework and a transcript showing grades in all courses in the program to The University of Texas at Austin, Office of the Dean, College of Natural Sciences, 1 University Station G2500, Austin TX 78712. To be counted toward the degree, the coursework must be approved by the faculty adviser for medical laboratory science and the dean. None of the coursework completed in the clinical education program may be used to fulfill in-residence degree requirements, requirements 1 through 9 of the prescribed work above, or the requirements for a second bachelor's degree.

# **Special Requirements**

{no change}

# Order and Choice of Work

{no change}

#### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE PRE-HEALTH PROFESSIONS CERTIFICATE IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Pre-Health Professions Certificate in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On September 20, 2017, the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved the proposal. 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 proposal on December 14, 2017, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE PRE-HEALTH PROFESSIONS CERTIFICATE IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

	Ty]	$\overline{\boxtimes}$ (	New Certific Change an Ex Delete a Prog	xisting C	ram Certificate Progra	m	
		te: If the certificate pr nester credit hours, an					equirement of 21 to 24 otation.
	Pro	oposed classification	☐ Exc	lusive	⊠ General	☐ Major	
1.	CO	NSULT <u>LINDA DIC</u>	KENS, DIRI	ECTOR	OF ACCREDI		THE COLLEGE MUST ASSESSMENT, TO
		TERMINE IF SACSO					v 🗆 N. 🖂
	•	Is this a new transcrip	_				Yes No No
	•	Is this a request to del					
	•	Does the certificate of			•	npus?	Yes No No
	•	Will courses in this pr	-		-	. 0	Yes No No
	•	Will courses be develo	oped specific	ally for	the new certifica	te?	Yes 🗌 No 🔀
2. 1	HIS	S PROPOSAL INVOL	VES (Please	e check	all that apply)		
		Courses in other co		Course	es in proposer's contly taken by stud		☐ Flags
		Course in the core curriculum		Change	e in course seque g program	encing for an	Courses that have to be added to the inventory
		Change in admissi requirements (exterinternal)		catalog accepta	ements not expligations and ements and ements and ements of the ements o	lists of	
3.	SC	OPE OF PROPOSED	CHANGE				
	a.	Does this proposal im		lleges/so	chools?		Yes ⊠ No □
		If yes, then how? An e	_	_		urse added to cert	
	b.	Do you anticipate a ne If yes, how many mor	e (or fewer)	students	do you expect?		Yes 🗌 No 🔀
	c.	Do you anticipate a ne college taking classes	in your colle	ge?			outside of your Yes ☐ No 🏻
	d.	If yes, please indicate Do you anticipate a netaking courses in other	et increase (o				your college Yes ⊠ No □
	If y	ves, please indicate the 1		idents ai	nd/or class seats	involved.	162 🕅 140 🗀
		tired from course inventuation: EDP 363, 369k		be retire	d)		
	<u>M</u> o	oved courses (not new to	o certificate,	just_rear	ranged due to ad	dition of duplicate	e coursework)

College of Liberal Arts: PSY 346K

#### Added courses

McCombs School of Business: MAN 334M

Moody College of Communication: CSD 306K, 308K College of Education: EDP 350E, 350L; HED 329K, 378D

College of Fine Arts: ART 339R

College of Liberal Arts: AMS 370 (Topic 49); AFR 374D (Topic 11); GRG 344K, 356 (Topic 1), 356T

(Topic 9); SOC 307P, 321G, 333K

College of Natural Sciences: HDF 343; NTR 315, 321, 332; SDS 301

Steve Hicks School of Social Work: SW 360K (Topic 9)

Natural Sciences majors must complete a minimum of nine hours from a variety of coursework spread across five themes: cultural awareness, health and anatomy, healthcare policy, human and societal development, and nutrition. The additional courses were identified through individual petitions by Natural Sciences majors over the last two years. The changes to the certificate add thirty-one courses to bring the total number of course choices to eighty-four. I estimate the number of seats per course to be one to three seats per year.

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? Three seats per year

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

Person communicated with: Luis Martins, Chair

Date of communication: September 26, 2017

Response: We would be happy to have Natural Sciences add MAN 334M, Healthcare Systems

Management, to the healthcare policy theme.

How many students do you expect to be impacted? Three seats per year

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

Sciences and Disorders

Person communicated with: Rajinder Koul, Chair Date of communication: September 26, 2017 Response: I approve the addition to the certificate.

How many students do you expect to be impacted? Three seats per year per course

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

Psychology

Person communicated with: Cindy Carlson, Chair

Date of communication: September 26, 2017

Response: Yes, you have my permission to add these courses to your certificate program.

How many students do you expect to be impacted?

Impacted schools must be contacted and their response(s) included: Department of Kinesiology &

Health Education

Person communicated with: John Bartholomew, Chair

Date of communication: September 26, 2017

Response: We are happy to have the course listed.

How many students do you expect to be impacted? Three seats per year

Impacted schools must be contacted and their response(s) included: College of Fine Arts

Person communicated with: Jack Risley, Chair

Date of communication: email sent September 26, 2017

Response: We are enormously proud of this course and would be delighted to have it included in

your Pre-Health Professions Certificate.

How many students do you expect to be impacted? Three seats per year

Impacted schools must be contacted and their response(s) included: Department of African & African

Diaspora Studies

Person communicated with: Edmund Gordon, Chair

Date of communication: September 26, 2017

Response: Yes it does.

How many students do you expect to be impacted? Three seats per year per course

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

Person communicated with: Robert Crosnoe, Chair

Date of communication: September 26, 2017

Response: Yes, this would be fine for us.

How many students do you expect to be impacted? Three seats per year

Impacted schools must be contacted and their response(s) included: College of Geography & the

Environment

Person communicated with: Sheryl Luzzadder-Beach

Date of communication: September 26, 2017

Response: I approve, feel free to work out the details on how these best serve your students.

How many students do you expect to be impacted?

Impacted schools must be contacted and their response(s) included: Steve Hicks School of Social

Work

Person communicated with: Allan Cole, senior associate dean for academic affairs

Date of communication: email sent September 26, 2017

Response: We would be pleased to have this course added to the certificate in NS.

How many students do you expect to be impacted? Three seats per year

Impacted schools must be contacted and their response(s) included: Department of American Studies

Person communicated with: Steven Hoelscher, Chair

Date of communication: email sent September 26, 2017

Response: We would be delighted to add this course.

- 4. OFFICIAL CERTIFICATE NAME: Undergraduate Certificate: Pre-Health Professions Certificate
- 5. 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:

# 9. NUMBER OF HOURS REQUIRED FOR COMPLETION (Note: If the number of required hours is 21 to 24, THECB form is required):

# 10. LIST FACULTY ON THE CERTIFICATE PROGRAM FACULTY COMMITTEE.

Name of Faculty Member	College/Department	Title at UT Austin	Highest Degree and Awarding Institution

# **11. ACADEMIC COURSE REQUIREMENTS**: Use this table to identify the courses that qualify for this certificate program.

Course Abbreviation	Course Title	SCH		
and Number				
AFR 374D,	Topic 11: Psychology of the African American Experience	3		
Topic 11				
AMS 370,	Topic 49: Twentieth-Century United States Lesbian and Gay	3		
Topic 49				
ARH 339R	Art, Art History, and Medicine	3		
CSD 306K	Introduction to Communication Disorders	3		
CSD 308K	Perspectives on Deafness	3		
EDP 350L	Human Sexuality #	3		
	# Upper-division standing			
EDP 350E	Introduction to Life Span Development #	3		
	# Upper-division standing			
GRG 344K	Global Food, Farming, and Hunger	3		
GRG 356,	Topic 1: Children's Environmental Health #	3		
Topic 1	# Upper-division standing			
GRG 356T,	1 11 0			
Topic 9	# Upper-division standing			
HDF 343	Human Development in Minority and Immigrant Families #	3		
	# Upper-division standing; HDF 313, 113L, 315L			
HED 329K	Child and Adolescent Health	3		
HED 378D	Peer Health Leadership I #	3		
	# Consent of instructor			
MAN 334M	Healthcare System Management #	3		
	# Upper-division standing			
NTR 315	Nutrition through the Life Cycle #	3		
	# NTR 306, 312, or 312H			
NTR 321	International Nutrition: The Developing World #	3		
	# NTR 306, 312, or 312H			
NTR 332	Community Nutrition #	3		
	# NTR 312 or 312H; 315, 326			
SOC 307P	Introduction to the Sociology of Health and Well-Being	3		
SOC 321G	Global Health Issues and Health Systems #	3		
0.00000	# Upper-division standing			
SOC 333K	Sociology of Gender #	3		
	# Upper-division standing			
S W 360K,	Topic 9: Loss and Grief: Individual, Family, and Cultural	3		
Topic 9	Perspectives			

# 12. OTHER CERTIFICATE REQUIREMENTS:

# 13. GIVE A DETAILED RATIONALE FOR CHANGE(S):

Natural Sciences rearranged the some of the explanatory text from the last paragraph to the first paragraph. **Reason:** The first paragraph will now contain the information students are most interested initially.

# Science major track changes

Add coursework across the university that was identified via individual petitions for students pursuing the programs. Delete coursework retired from the course inventory.

**Reason:** Clean-up of course lists within theme areas.

Rearrange coursework to allow no more than one course chosen from EDP 350L (Human Sexuality), HED 366 (Human Sexuality), and PSY 346K (Psychology of Sex).

**Reason**: Some amount of overlap between material. Certificate students would be better served taking course work to provide a broader background in courses that would be beneficial to pre-health professions students.

Remove M 316 and replace with SDS 301.

**Reason:** M 316 is being retired. Material will be taught in SDS 301.

# Non-science major track changes

Allow certificate to be completed by a combination of introductory and advanced coursework in the particular area of preparation that a student pursues.

**Reason:** The advanced coursework departments have sufficient seats available that there is no need to restrict enrollment on the basis of completing all of the introductory coursework. Students outside of Natural Sciences must still meet individual course prerequisites.

Add organic chemistry sequence to the pre-veterinary preparation.

**Reason:** Organic chemistry is required for pre-veterinary preparation.

## 14. COLLEGE/SCHOOL APPROVAL PROCESS:

College approval date: September 20, 2017 Course and Curriculum Committee

Dean approval date: September 20, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

## **Pre-Health Professions Certificate**

The Pre-Health Professions Certificate assists students in preparing for post-baccalaureate, healthcare professional programs. The certificate consists of a minimum of eighteen hours, including nine hours in residence. Each course presented for the certificate must be completed with a grade of at least *C*-.

The certificate is composed of two separate tracks: a track for majors in the College of Natural Sciences, and a track for majors in other colleges across the university. Students must apply online for admission to the certificate through the university-wide portal for transcript recognized certificates.

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. [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 one of the following: Statistics and Data Sciences 302, Mathematics 408C, 408K, 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 18 hours. Each course presented for the certificate must be completed with a grade of at least *C*.]

# **Science Major Track**

- 1. Complete <u>eighteen</u> [18] 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 and 374D (*Topic 11: Psychology of the African American Experience*)
    - iv. Latin American Studies 324L (Topic 16: Mexican Immigration Cultural History)
    - v. Mexican American Studies 307
    - vi. Middle Eastern Studies 301L
  - vii. American Studies 370 (Topic 49: Twentieth-Century United States Lesbian and Gay History)
  - viii. Communication Sciences and Disorders 308K
  - b. Health and Anatomy:
    - i. Classical Civilization 306M
    - ii. Educational Psychology <u>350L</u>, [<del>363 (Topic 3: *Human Sexuality*) or</del>] Health Education 366, or Psychology 346K
    - iii. Health Education 335, 343, 352K, 370K, and 373
    - iv. Kinesiology 320, 424K, 425K, and 326K
    - v. Psychology 301, 308, 332C, [Psychology] 341K (Topic 4: Health Psychology), [Psychology 346K,] and [Psychology] 353K
    - vi. Art History 339R
  - vii. Communication Sciences and Disorders 306K
  - 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 <u>307P</u>, 319, <u>321G</u>, 336D, 354K, 358D, 368D, and 369K
    - vi. Urban Studies 350 (Topic 2: *Human Health and the Environment*)
  - vii. Geography <u>344K</u>, <u>356 (Topic 1: Children's Environmental Health)</u>, <u>356T (Topic 9: Human Health and the Environment)</u>, and <u>357</u>
  - viii. Public Health 317
  - ix. 3 hours from Health Education 378D

# x. Management 334M

- d. Human and Societal Development:
  - i. Communication Studies 310K and 322E
  - ii. Educational Psychology 350E [369K (Topic 10: Educational Neuroscience)]
  - iii. Human Development and Family Sciences 304, 313, 335, 342, <u>343</u>, 351, and 378K (approved topics)
  - iv. Nursing 310
  - v. Psychology 301, 308, 332C, 333D, and 341K (Topic 4: *Health Psychology*)[, and Psychology 346K]
  - vi. Sociology 302, [and] 330C, and 333K
- vii. Health Education 329K
- viii. Social Work 360K (Topic 9: Loss and Grief: Individual, Family, and Cultural Perspectives)
- e. Nutrition:
  - i. Communication Studies 322E
  - ii. History 350R (Topic 5: American Cultural History of Alcohol and Drugs)
  - iii. Nutrition 306, 312, 315, 218, 321, 326, [and] 331, and 332

Optional: If additional hours are needed to complete the 18 hours for the certificate, 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 301, 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 <u>eighteen</u> [18] hours [from one of the following areas of health professions preparations,] chosen from one of the health professions preparation sequences numbered a through h. The eighteen hours may be composed of introductory coursework, advanced coursework, or a mixture of the two. [a.i through h.i. Upon completion of the certificate, students may enroll in the advanced coursework associated with their introductory preparation, chosen from a.ii through h.ii.]
  - a. Pre-dental preparation:
    - [i. Certificate] Introductory 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
  - b. Pre-medical preparation:
    - [i. Certificate] Introductory 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] Introductory Coursework: Biology 311C, 311D, 206L; Chemistry 204; Statistics and Data Sciences 302; Physics 302K, 102M\*[, and one hour of additional coursework approved by the certificate adviser]

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

## DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO MINORS AND CERTIFICATES PROGRAMS SECTION IN THE COLLEGE OF NATURAL SCIENCES SECTION IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Minors and Certificates Programs section in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On September 20, 2017, the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved the proposal. The Secretary has classified this proposal as legislation of exclusive interest to one college or school.

The Committee on Undergraduate Degree Program Review recommended approval of the proposal on January 24, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

# PROPOSED CHANGES TO MINORS AND CERTIFICATES PROGRAMS SECTION IN THE COLLEGE OF NATURAL SCIENCES SECTION IN THE UNDERGRADUATE CATALOG 2018-2020

Tyl	Type of Change  ☐ Academic Change ☐ Degree Program Change (THECB form required)							
Pro	pos	ed classification	Exclusive	General	☐ Major			
1.	CO		CKENS, DIRE SCOC APPRO program? g deleted? ffer courses that	CCTOR OF ACC	CREDITATION AND IRED.  If campus?	YES, THE COLLEGE MUST ND ASSESSMENT, TO  Yes  No  Yes		
2.		PLAIN CHANGE T CH INDIVIDUAL (		PROGRAM ANI	D GIVE A DETAII	LED RATIONALE FOR		
Miı	nor a	nd Certificate Progra	<u>ms</u>					
Rea reco sep sim	Courses in other colleges  Courses in proposer's college that are frequently taken by students in other colleges  Flags					recognized minors/ transcript- has a built-in limit of five ting a policy similar to its ss the impact of adding more f graduation.		
		Change in admis requirements (ex internal)	ternal or	catalog langua	not explicit in the ge (e.g., lists of rses maintained office)	inventory		
4.		OPE OF PROPOSE		1 / 1 10		v 🗆 n 🖂		
	a.	Does this proposal i	-	leges/schools?		Yes 🗌 No 🔀		
	b.	Do you anticipate a	•	ne number of stud	lents in your college	? Yes 🗌 No 🖂		
		If yes, how many m	ore (or fewer) s	tudents do you ex	rpect?			
	c.	Do you anticipate a taking classes in you		decrease) in the	number of students	$\frac{\text{from outside}}{\text{Yes}} \text{ of your college}$		
	d.	If yes, please indica	te the number onet increase (or					

If yes, please indicate the number of students and/or class seats involved.

If 4 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:

Person communicated with:

Date of communication:

Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No.

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? No.

Note: THECB Semester Credit Hour Change Form required, download from URL:

http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc

If yes, explain:

# 5. COLLEGE/SCHOOL APPROVAL PROCESS

College approval date: September 20, 2017 Course and Curriculum Committee

Dean approval date: September 20, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

#### MINOR AND CERTIFICATE PROGRAMS

<u>In the College of Natural Sciences, only one transcript-recognized minor or transcript-recognized certificate</u> may be declared per major.

A student who wishes to pursue more than one transcript-recognized minor or transcript-recognized certificate per major must consult with his or her academic advisor to get permission from the College. When considering whether to grant an exception and allow pursuit of another transcript-recognized credential, the academic advisor will take into account the student's long-term educational/professional goals and the student's ability to graduate within four years of entering the university.

Students admitted to transcript-recognized certificate and transcript-recognized minor programs must contact their academic advisors to have approved programs added to their degree audit profiles. This allows progress toward the programs to be tracked and ensures that certificates and minors are added to official transcripts upon graduation, if all requirements are met.

## Minor

{no change}

# **Certificate Programs**

{no change}

## DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BS IN ASTRONOMY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES SECTION IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Astronomy degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On February 10, 2017, the Astronomy Executive Undergraduate Studies Committee approved the proposal; on May 10, 2017, the Dean's Scholars Steering Committee approved it, and on September 20, 2017, Associate Dean David Vanden Bout, on behalf of Dean Hicke, granted approval. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BS IN ASTRONOMY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES SECTION IN THE UNDERGRADUATE CATALOG 2018-2020

ype of Change  ☐ Degree Program Change (THECB form required)							
Proposed classificat	ion	e 🛚 General	☐ Major				
CONSULT LIN DETERMINE I	IDA DICKENS, E IF SACSCOC AP		CCREDITATION A	YES, THE COLLEGE M ND ASSESSMENT, TO	UST		
	degree program?			Yes No No			
	am being deleted?	.1 . 21.1 . 1.		Yes No No			
		s that will be taught e delivered electron		Yes ☐ No ☒ Yes ☐ No ☒			
			-	LED RATIONALE FOR			
	DUAL CHANGE:		CO GIVE IL DEITH	EED MITTOTWIEET ON			
Option 1, Astronomy	, -						
Remove AST 351 as (Practical Introduction requirement.	a recommended cl on to Research Met	ass. Add AST 364P hods), as recommen	(Planetary Systems), dations for the 4 <sup>th</sup> cou	353, and 358 are required., 376C (Cosmology), and 3 urse selected to fulfill the			
rigorous introduction	to one of the most	exciting, core subje	ects of 21st century as	tary Systems provides a tronomy research. The o the science of planetary			
Option II, Astronomy	<u>Honors</u>						
Reason: In practice,	the Dean's Scholar from both colleges	s Program allows st		tiberal Arts.  s from a single college or a advising practice and elimin			
Special Requirement	<u>s</u>						
Reason: Since the ho	onors options were between degrees.	added at different ti		egree options. ees were created, language e voted to establish standard	d		
	AL INVOLVES ( n other colleges	are frequently	oposer's college that y taken by students in	_			
		an existing particle Requirement catalog langu	urse sequencing for rogram s not explicit in the lage (e.g., lists of burses maintained by	Courses that have added to the invent			

# 4. SCOPE OF PROPOSED CHANGE

a.	Does this proposal impact If yes, then how would yo			Yes 🛛 No 🗌		
	The original legislation stated that Dean's Scholars must choose 6 hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.					
	Liberal Arts. Specific cou advising practice. Making colleges may be impacted	arses are not prescribed and g an estimate, perhaps ten s l. Because the number of s e Arts and the College of L	pact the College of Fine Arts If the change is to match cata seats per year distributed acreats across both colleges is aliberal Arts were not formall	alog language to current ross all courses in both estimated to be so		
b.	Do you anticipate a net ch	nange in the number of stu		Yes 🗌 No 🖂		
c.	If yes, how many more (or fewer) students do you expect?  Do you anticipate a net increase (or decrease) in the number of students from outside of your college taking classes in your college?  If yes, please indicate the number of students and/or class seats involved.					
d.	Do you anticipate a net in courses in other colleges?	crease (or decrease) in the	number of students from you	our college taking Yes ☐ No 🏻		
	If yes, please indicate the	number of students and/or	class seats involved.			
pot	ential budgetary impacts	for another college/scho	r the following questions. ol, such as requiring new s least one contact must be a	ections or a non-		
	How many students do yo	ou expect to be impacted?		O		
	Impacted schools must be Person communicate	e contacted and their respo	nse(s) included:			
	Date of communicati					
	Response:					
e.			culum or other basic educat	ion requirements (42-		
		ses, flags)? If yes, explain:		1.0		
	If yes, undergraduate st included:	udies must be informed (	of the proposed changes an	id their response		
	Person communicate	d with:				
	Date of communicati	on:				
	Response:					
f.	Will this proposal change the number of hours required for degree completion? No. Note: THECB Semester Credit Hour Change Form required, download from URL:					
			required, download from UDocID=2419&format=doc	KL:		
	If yes, explain:	as/reports/Boer eten.eim.	Doctio=2+17cctofffiat-doc			
CO	LLEGE/SCHOOL APPI	ROVAL PROCESS				
	partment approval date:	November 5, 2015;	Astronomy Executive Un	dergraduate		
•	11	February 10, 2017	Studies Committee			
	partment approval date:	May 10, 2017	Dean's Scholars Steering			
Col	lege approval date:	September 6, 2017	Course and Curriculum C	ommittee		
September 20 2017 Dean approval date: September 20, 2017			David Vanden Bout, Asso for Undergraduate Educat			

# PROPOSED NEW CATALOG TEXT:

5.

# **BACHELOR OF SCIENCE IN ASTRONOMY**

{no changes}

# **Prescribed Work Common to all Options**

{no changes}

# **Additional Prescribed Work for Each Option**

# **Option I: Astronomy**

- 6. Six semester hours in biology, chemistry, computer science, and/or geological sciences; Chemistry 301 or 301H and the courses in the Elements of Computing Certificate Program may be counted toward this requirement; any other course to be counted must meet major requirements in the department that offers it.
- 7. Mathematics 408C and 408D, or the equivalent; and 427J or 427K, 427L, and 340L
- 8. Physics 301, 101L, 315, 115L, 316, 116L, 336K, 352K, 353L, 355, 362K, 369, and 373
- 9. [12 semester hours of upper division coursework in astronomy, including] Astronomy 352K, 353, [and]358, and three additional hours of upper-division Astronomy. Astronomy [351] 364P, 376C, or 376R are [is] recommended
- 10. Nine additional semester hours of upper-division coursework in physics and/or astronomy
- 11. Enough additional coursework to make a total of 123 semester hours

# **Option II: Astronomy Honors**

- 6. Breadth requirement: An honors mathematics course, Chemistry 301H, and nine additional hours of coursework chosen from honors courses in the college; credit earned by examination may not be counted toward this requirement.
- 7. Physics 301, 101L, 315, 115L, 316, and 116L
- 8. 12 semester hours of upper-division coursework in astronomy approved by the departmental honors
- 9. 18 semester hours of upper-division coursework in physics approved by the departmental honors adviser
- 10. Three additional semester hours of upper-division coursework in astronomy or physics
- 11. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 12. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 13. Astronomy 379H and either a three-semester-hour upper-division research course approved by the departmental honors adviser or a second section of Astronomy 379H
- 14. 16 additional hours of coursework approved by the departmental honors adviser
- 15. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts
- 16. Enough additional coursework to make a total of 120 semester hours

# **Special Requirements**

Students in both Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C*- in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate under Option II, students must remain in good standing in the Dean's Scholars Honors Program, must <u>submit an honors thesis approved by the departmental honors adviser</u>, [earn grades of at least *A*- in the <u>departmental research and thesis courses described in requirement 12 above</u>,] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. <u>More information</u> about the Undergraduate Research Forum is available at https://cns.utexas.edu.

## DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOCHEMISTRY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Biochemistry degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Department of Biochemistry approved the proposal on March 31, 2017; it was approved by the Dean's Scholars Steering Committee on September 27, 2017; and by the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 20, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOCHEMISTRY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Ty	ype of Change  ☐ Academic Change ☐ Degree Program Change (THECB form required)						
Pro	roposed classification						
1.	IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION DETERMINE IF SACSCOC APPROVAL IS REQUIRED.						
	• Is this a new degree program?	Yes 🗌 No 🔀					
	• Is this program being deleted?	Yes 🗌 No 🔀					
	• Does the program offer courses that will be taught off campus?	Yes 🗌 No 🔀					
	• Will courses in this program be delivered electronically?	Yes 🗌 No 🔀					
2.	EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DE	FAILED RATIONALE FOR					

# **EACH INDIVIDUAL CHANGE:**

Option 1, Biochemistry

Remove BCH 339N from requirement 8c and reduce number of biochemistry elective courses from three to

Reason: The majority of students are not adequately prepared for the computation aspects of BCH 339N even with a prerequisite of programming. The course will become an elective choice for students who are adequately prepared. The number of biochemistry courses are reduced by one in order to accommodate the addition of BIO 344 without changing the number of general elective hours that students take.

Add transcript-recognized minor to options in requirement 11

Reason: The department was unsure whether there would be sufficient transcript-recognized minors across campus when preparing legislation for the 2016-18 catalog. However, there are many options for students now

# Option III, Biochemistry Honors

Reduce number of biochemistry elective courses from three to two

Reason: The number of biochemistry courses are reduced by one in order to accommodate the addition of BIO 344 without changing the number of general elective hours that students take.

Add BIO 344 to the option

Reason: The restructuring of the BS Biochemistry major courses in the 2016-18 catalog eliminated a concentration in molecular biology. Rather than create a new biochemistry course to address this, BIO 344 will be added to fulfill this gap in knowledge.

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

Reason: In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

# Special Requirements

	Standardize language regarding requirements to graduate with Dean's Scholars degree options.  Reason: Since the honors options were added at different times as new BS degrees were created, language began to differentiate between degrees. The Dean's Scholars steering committee voted to establish standard language for all of its options.				
3.	THIS PROPOSAL INVOLVES (Please check all that apply)				
	Courses in other colleges  Courses in proposer's college that are frequently taken by students in other colleges				
	□ Course in the core curriculum       □ Change in course sequencing for an existing program       □ Courses that have to be added to the inventory         □ Change in admission requirements (external or internal)       □ Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office)				
4.	SCOPE OF PROPOSED CHANGE				
	a. Does this proposal impact other colleges/schools? Yes ⊠ No □				
	If yes, then how would you do so?				
	The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.				
	There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.				
	b. Do you anticipate a net change in the number of students in your college? Yes \( \subseteq \) No \( \subseteq \) If yes, how many more (or fewer) students do you expect?				
	c. Do you anticipate a net increase (or decrease) in the number of <u>students from outside</u> of your college taking <u>classes in your college</u> ?  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 \sum No \sum If yes, please indicate the number of students and/or class seats involved.				
	If 4 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:				
	Person communicated with:				
	Date of communication:				

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No.

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? No.

Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc

If yes, explain:

# 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: March 31, 2017 Karen Browning, Associate Chair
Dean's Scholars approval date: May 10, 2017 Dean's Scholars Steering Committee
September 27, 2017 Jeffrey Barrick, Biochemistry Honors

Faculty Adviser

College approval date: April 20, 2017

September 20, 2017

Dean approval date: September 20, 2017 David Vanden Bout, Associate Dean for

Course and Curriculum Committee

Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

# BACHELOR OF SCIENCE IN BIOCHEMISTRY

{no change}

## **Prescribed Work Common to all Options**

{no change}

## **Additional Prescribed Work for Each Option**

# **Option I: Biochemistry**

- 5. Mathematics 408C and 408D, or 408N, 408S, and 408M
- 6. Biostatistics: Statistics and Data Sciences 328M
- 7. One of the following sequences:
  - a. Physics 317K, 117M, 317L, and 117N (recommended);
  - b. Physics 303K, 103M, 303L, and 103N; or
  - c. Physics 301, 101L, 316, and 116L
- 8. The following chemistry courses:
  - a. General chemistry: Chemistry 301 or 301H, 302 or 302H, and 204 or 317
  - b. Organic chemistry: Chemistry 320M
  - c. Biochemistry: Biochemistry 339F and 369L, and [three] two additional courses chosen from Biochemistry 339J, 339M, [339N], and 370
  - d. Physical chemistry: Chemistry 353 or 353M
  - e. Analytical chemistry: Chemistry 455
- 9. One of the following sequences:
  - a. Biology 311C, 311D, and 325; or
  - b. Biology 315H and 325H

# 10. Biology 344

[10.] 11. Completion of one of the following:

- a. [18] <u>Eighteen</u> additional semester hours of upper-division biochemistry, biology, chemistry, and neuroscience; or
- b. A transcript-recognized certificate or a transcript-recognized minor
- [41.] 12. Enough additional coursework to make a total of 120 semester hours

# **Option III: Biochemistry Honors**

- 5. Breadth requirement: An honors mathematics course, Biology 315H and 325H, Chemistry 301H and 302H, and three additional semester hours of coursework chosen from honors courses in the college. Credit earned by examination may not be counted toward this requirement.
- 6. The following chemistry courses:
  - a. General chemistry: Chemistry 204 or 317
  - b. Organic chemistry: Chemistry 128K, 128L, 328M, and 328N; or 220C, 320M, and 320N
  - c. Biochemistry: Biochemistry 339F and 369L, and [three two] additional courses chosen from Biochemistry 339J, 339M, 339N, and 370
  - d. Physical chemistry: Chemistry 353 or 353M
  - e. Analytical chemistry: Chemistry 455

# 7. Biology 344

- [6-] <u>8.</u> A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- [7.] 9. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- [8-] 10. Chemistry 379H or 379H and either a three-semester-hour upper-division research course approved by the departmental honors adviser or a second section of Chemistry 379H or Biochemistry 379H
- [9.] 11. [24] Twenty-four additional semester hours of coursework approved by the departmental honors adviser.
- [10.] 12. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts.
- [11.] 13. Enough additional coursework to make a total of 120 semester hours.

## **Special Requirements**

Students in all Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C*- in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate under Option III, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, [earn grades of at least A in the departmental research and thesis courses described in requirement 8 above,] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu. [may be found on the College of Natural Sciences website.]

## Order and Choice of Work

{no change}

## DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOLOGY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Biology degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Biology Instructional Office approved the proposal on February 10, 2017; it was approved by the Department of Integrative Biology on September 6, 2017; and by the Department of Molecular Bioscience and Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 13, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

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# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOLOGY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Type of Change  Academic Change  Degree Program Change (THECB form required)					
Pro	Proposed classification				
l.	CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AN DETERMINE IF SACSCOC APPROVAL IS REQUIRED.  Is this a new degree program?  Is this program being deleted?  Does the program offer courses that will be taught off campus?  Y				
2.	<ul> <li>Will courses in this program be delivered electronically? Y</li> <li>EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAIL EACH INDIVIDUAL CHANGE:</li> <li>Change Common to Options II (Human Biology), V (Cell and Molecular Biol Biology), XI (Biology),</li> </ul>				
	Biology), XI (Biology).  Remove BIO 323L from list of approved labs.  Reason: Department of Molecular Biosciences is unsure when course will be offered again. Students who might have taken BIO 323L will be absorbed into the other lab course options.				
	<u>Change Common to Options II (Human Biology), IV (Microbiology and Infection (Computational Biology), XI (Biology)</u>	tious Diseases), X			
	Change BIO 160L to 260L.  Reason: The immunology lab was increased from one to two hours.				
	Change Common to Options I (Ecology, Evolution, and Behavior), VIII (Teaching), IX (Biology Honors), XI (Biology)				
	Remove NEU 365R.  Reason: Deleted from the course inventory effective fall 2017.				

Option III, Marine and Freshwater Science

Remove the choice of six hours from pairs of coursework.

**Reason:** In the 2016-18 catalog, the six-hour course sequences were added to our degree option to guide students into a concentration in topics that we felt were relevant to Marine Science. Unfortunately, the GRG courses turned out to be very popular amongst Option III students and exceedingly difficult to get. This has caused a lot of stress for the students and advising exceptions on our part. Of the GRG courses listed, three courses sometimes have a small number of seats available for non-majors; of these two have lower division prerequisites, and the third most often has no seats available outside the major. Thus, we removed the sequences with these courses.

This left four BIO course sequences. Since some of the BIO courses in the sequences also have low availability, we opted to include them in a list of acceptable upper division courses rather than prescribed sequences. In this way, students don't run the risk of not being able to complete their chosen sequence if they can't get into a course. Instead of the previous twelve hours of upper division, it's now eighteen hours of upper division, of which a minimum of twelve hours must be in Marine Science.

We relocated GEO 341G, Geomicrobiology, from the six-hour course sequences to the list of acceptable upper division courses. Marine Science majors are not as interested in this class as they are the Geography classes. However, for the occasional student who enrolls, it is appropriate to count the course.

# Option VII, Plant Biology

When requirements were rewritten in the 2016-18 catalog, BIO 374, Plant Anatomy, was inverted as BIO 347, Biology and Genetics of Immune Disorders.

Reason: Correcting error.

# Option IX, Biology Honors

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

**Reason:** In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

# Option X, Computational Biology

Remove M 362K from a list of approved courses in requirement 5.

**Reason:** M 362K and SDS 321 are in a duplicate relationship. Students can count only 1 of the courses. In requirement 5, students are instructed to complete either M 362K or SDS 321. In requirement 6, M 362K is in an

approved list of choices. Due to the duplicate relationship, students cannot apply M 362K toward requirement 6.

Remove NEU 365R.

**Reason:** Deleted from the course inventory effective fall 2017.

# Option XII, Genetics and Genomics

Add BIO 320, Cell Biology, to list of required biology courses.

**Reason:** The inclusion of this course was omitted in error when the option was created for the 2016-18 catalog.

Reduce from twelve to nine hours of additional hours in upper-division biochemistry, biology, chemistry, mathematics, and statistics and data sciences.

**Reason:** Reduction of additional science hours made to accommodate addition of BIO 320 in order to maintain the number of hours in the option and the number of elective hours students may take.

## Special Requirements

Standardize language regarding requirements to graduate with Dean's Scholars degree options.

**Reason:** Since the honors options were added at different times as new BS degrees were created, language began to differentiate between degrees. The Dean's Scholars steering committee voted to establish standard language for all of its options.

3.	THIS PROPOSAL INVOLVES		
	☐ Courses in other colleges	Courses in proposer's college that are frequently taken by students in	☐ Flags
		other colleges	
	Course in the core curriculum	Change in course sequencing for an existing program	Courses that have to be added to the inventory
	Change in admission	Requirements not explicit in the	•

requirements (external or internal)

catalog language (e.g., lists of acceptable courses maintained by department office)

4.	SCOPE	OF PI	ROPOSED	CHANGE

a. Does this proposal impact other colleges/schools? If yes, then how would you do so?

Yes 🛛 No 🗌

Option III, Marine and Freshwater Science: The proposal removes eleven GRG courses, which make up an estimated maximum of twenty seats per year distributed among the eleven courses.

Option IX, Biology Honors:

The original legislation stated that Dean's Scholars must choose 6 hours from either the College of Liberal Arts

(COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count 6 hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.

There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.

- 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 <u>students from outside</u> of your college taking <u>classes in your college</u>? Yes \( \subseteq \text{No } \( \subseteq \)

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 <u>students from your college</u> taking <u>courses in other colleges</u>? Yes No

If yes, please indicate the number of students and/or class seats involved.

Option III, Marine Science and Freshwater Biology: The proposal removes eleven GRG courses, which make up an estimated maximum of twenty seats per year distributed among the eleven courses.

If 4 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? Twenty

Impacted schools must be contacted and their response(s) included: Department of Geography and the

Person communicated with: Sheryl Luzzadder-Beach, Chair

Date of communication: September 12, 2017

Response: If this helps Marine Science students graduate faster and smooths your degree pathway, and you will still send them to GRG courses for electives, I agree.

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

# Response:

f. Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

## 5. COLLEGE/SCHOOL APPROVAL PROCESS

Biology Instructional Office

Department approval date: February 10, 2017 Janice

Fischer, director

College approval date: Course and Curriculum Committee

Department of Integrative Biology

Department approval date: February 20, 2017 Claus Wilke, chair

College approval date: September 6, 2017 Course and Curriculum Committee

Department of Marine Science

Department approval date: May 8, 2017 Marine Science Curriculum Committee
Department approval date: July 31, 2017 BIO Course and Curriculum Committee
College approval date: September 13, 2017 Course and Curriculum Committee

Department of Molecular Biosciences

Department approval date: March 31, 2017 Karen Browning, Associate Chair College approval date: April 20, 2017 Course and Curriculum Committee

Dean's Scholars approval date: May 10, 2017

College approval date: September 20, 2017

Dean approval date: September 13, 2017

Dean's Scholars Steering Committee

Course and Curriculum Committee

David Vanden Bout, Associate Dean for

Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

## BACHELOR OF SCIENCE IN BIOLOGY

{no change}

# **Prescribed Work Common to All Options**

{no change}

# **Additional Prescribed Work for Each Option**

#### Option I: Ecology, Evolution, and Behavior

- 5. One course or pair of courses in each of the following areas:
  - a. Ecology: Biology 357, 373, or Marine Science 320 and 120L
  - b. Behavior and comparative physiology: Biology 322 and 122L, 359K, or 361T
  - Taxon-based course: Biology
     321L, 324 and 124L, 327 and 127L, 340L, 448L, 351, 352, 353F, 453L, 354L, 455L, 463L, 369F, 369
     L, Marine Science 352D, 354, 354C, 354E
- 6. Three additional courses or pair of courses chosen from coursework in 5a through 5c and from Biology 438L, 471G, 456L, 359R, 364, 373L, 374 and 174L, 375, 478L, Marine Science 352C, and 354Q
- 7. One course in cellular, developmental, genetics, microbiology, molecular, or neuroscience: Biology 320, 320L, 325L, 325T, 326R, 328, 331L, 344, 349, 349L, 350M, 366R[, Neuroscience 365R]
- 8. One laboratory course or pair of courses containing a substantial field component: Biology 321L, 340L, 353F, 453L, 354L, 455L, 456L, 369L, 373L, Marine Science

- 320 and 120L, 352C, 352D, 354, 354C, 354E. A laboratory course or pair of courses may also count toward requirements 5 through 7
- One additional laboratory course: Biology 320L, 321L, 124L, 127L, 325L, 331L, 438L, 340L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 369L, 37 3L, 174L, 478L, Marine Science 120L, 352C, 352D, 354, 354C, 354E, 354Q. One-hour laboratory courses may require credit for or registration in a complementary lecture course. A laboratory course may also count toward requirements 5 through 7. A course counted toward requirement 8 may not also count toward requirement 9.
- 10. One course chosen from the following: Chemistry 320M, Computer Science 303E or 313E, Geological Sciences 401 or 303, Statistics and Data Sciences 332 or 348
- 11. Enough additional coursework to make a total of 120 semester hours

# **Option II: Human Biology**

- 5. Chemistry 320M, 320N, 220C
- 6. Biochemistry 369 or 339F
- 7. Biology 346
- 8. Three hours from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
- 9. Six hours from cellular, developmental, and molecular biology: Biochemistry 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 347 or 360K, 349, 350M, 360M, 361
- 10. Three hours from ecology, environment, and health: Biology 326R, 327D, 329, 330, 361, 364, Nutrition 306 or 312
- 11. Four hours from physiology and anatomy: Biology 446L, 365S and 165U, 478L
- 12. One additional laboratory course from: Biology 320L, 122L, [323L<sub>7</sub>] 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, [160L] 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L, 174L, 478L, Marine Science 120L, 152L. One-hour laboratory courses may require credit for or registration in a complementary lecture course.
- 13. Enough additional coursework to make a total of 120 semester hours

# **Option III: Marine and Freshwater Science**

- 5. Chemistry 320M
- 6. Biology 326R and 373
- 7. Marine Science 101, 310, 320, and 120L
- 8. [42] <u>Eighteen</u> hours of coursework, <u>including twelve hours in Marine Science</u>, chosen from: Biology <u>320</u>, 321L, <u>328</u>, <u>344</u>, 354L, <u>357</u>, <u>361T</u>, <u>364</u>, <u>364E</u>, <u>366</u>, <u>375</u>, <u>Geological Sciences 341G</u>, Marine Science 440, 348 (Topic 1: *Training Cruise(s)*), 352, 352C, 352D, 352E, 152L, 152S, 252S, 152T, 252T, 353, 354, 354C, 354E, 354J, 354Q, 354T, 354U, 355C, 356, 357, 367K, 170, 270, 370. Six hours <u>in Marine Science</u> must be completed at the Marine Science Institute in Port Aransas, Texas.
- 9. [Six hours of related courses chosen from one of the following options:]
  - [a.—Biology 320 and 344
  - [b. Biology 328and 361T]
  - [c. Biology 357 and 375]
  - [d. Biology 364 and 366 or Geological Sciences 341G]
  - [e. Geography 301C or 301K and 333K]
  - [f. Geography 301Cand 356 or 356T]
  - [g. Geography 306C and 334, 339, or 356]
  - [h. Geography 310C and 360G or 335N]
- [10.] 9. Enough additional coursework to make a total of 120 semester hours

# Option IV: Microbiology and Infectious Diseases

- 5. Biochemistry 369 or 339F, and Chemistry 320M
- 6. Biology 326R, 330, 339, 339M, 360K, 361, 366

- 7. Two upper-division biology laboratory courses chosen from: Biology 230L, <u>260L</u>, [<u>160L</u>,] and 361L. Biology 377-FRI/377/379H may be used for one of the laboratory courses if approved in advance by the microbiology faculty adviser.
- 8. <u>Fifteen [15]</u> additional hours in upper-division biochemistry, biology, and chemistry
- 9. Enough additional coursework to make a total of 120 semester hours

# Option V: Cell and Molecular Biology

- 5. Biochemistry 369 or 339F, and Chemistry 320M
- 6. Biology 320, 326R, 349, and 344 or 350M
- 7. Two laboratory courses chosen from: Biology 320L, [323L,] 325L, 331L, 349L
- 8. One additional upper-division laboratory course in biology. Biology 377-FRI/377/379H may be used if approved in advance by the cell and molecular biology faculty adviser.
- 9. Eighteen [18] additional hours in upper-division biochemistry, biology, and chemistry
- 10. Enough additional coursework to make a total of 120 semester hours

# **Option VII: Plant Biology**

- 5. Biology 328, 373, and 322 and 122L, 324 and 124L, or 463L
- 6. Two additional upper-division laboratory courses; Biology 377-FRI/377/379H may be used for one of the laboratory courses if approved in advance by the plant biology faculty adviser.
- 7. One of the following sequences:
  - a. Plant molecular biology: Biochemistry 369 or 339F, Biology 320 and 350M, and Chemistry 320M
  - b. Plant environmental biology: Biology 357, [347] 374, and 375
- 8. Eighteen [18] additional hours in upper-division biochemistry, biology, chemistry, and marine science
- 9. Enough additional coursework to make a total of 120 semester hours

# **Option VIII: Teaching**

This Option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses either composite science certification with biology as the primary teaching field or life science certification. However, completion of the course requirements does not guarantee the student's certification. Information about additional certification requirements is available from the UTeach-Natural Sciences academic adviser.

- 5. Chemistry 320M, 320N, and 220C or 320M and Biochemistry 369
- 6. Biology courses:
  - a. Biology 320, 226L, 326R, and either 324 and 124L, 322 and 122L, or 328 and 128L
  - b. At least three semester hours chosen from the following courses in physiology, neurobiology, and behavior: Biology 438L, Biology 359K, 359R, 361T, 365S, 367C[, Neuroscience 365R]
  - c. At least three semester hours chosen from: Biology 340L, 448L, 453L, 455L, 456L, 463L, 364, 369L, 373, Marine Science 352D, 354, 354C
- 7. One of the following research methods courses: Biology 328D, 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), Physics 341 (Topic 7: Research Methods: UTeach)
- 8. History 329U or Philosophy 329U
- 9. One of the following:
  - a. For composite science certification: Biochemistry 369 (to be counted as upper-division biology hours) and six semester hours of coursework in geological sciences. Courses intended for nonscience majors may not be counted toward this requirement. The remaining composite certification content requirements are met by the chemistry, physics, and science courses used to fulfill requirements 3c, 3d, 3ei, and 5.
  - b. For life science certification: Biology 373, and three additional semester hours of biology chosen from the courses listed in requirement 6b and 6c
- 10. <u>Eighteen</u> [18] semester hours of professional development coursework consisting of:
  - a. Curriculum and Instruction 651S

- b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
- c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
- d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
- e. UTeach-Natural Sciences 101, 110, and 170
- Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
- 12. Enough additional coursework to make a total of 126 semester hours

# **Option IX: Biology Honors**

- 5. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and an additional three-hour honors-designated course from a department in College of Natural Sciences. Credit earned by examination may not be counted toward this requirement.
- 6. An eight-semester-hour sequence of coursework in physics chosen from the following:
  - a. Physics 301, 101L, 316, and 116L;
  - b. Physics 317K, 117M, 317L, and 117N; or
  - c. Physics 303K, 103M, 303L, and 103N
- 7. Biology 206L or 208L and Chemistry 204
- 8. Complete twenty-four [24] hours chosen from any of the following courses:
  - a. Biology 370
  - b. Cellular, developmental, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 347 or 360K, 349, 350M, 360M, 361
  - c. Genetics and genomics: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
  - d. Physiology, neuroscience, and behavior: Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374, Marine Science 355C[, Neuroscience 365R]
  - e. Ecology, evolution, and biodiversity: Biology 322, 324, 346, 351, 357, 364, 471G, 373, 375, Marine Science 320, 352C, 352D, 352E, 353, 354, 354C, 354E, 354Q, 356, 357
- 9. Three upper-division laboratory courses in biology; Biology 377 or 379H may be used as only one of the three required upper-division laboratory courses. Courses used to fulfill this requirement may also be counted toward requirement 8.
- 10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 11. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 12. Two semesters of Biology 379H
- 13. Fifteen [15] additional semester hours of coursework approved by the departmental honors adviser
- 14. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts
- 15. Enough additional coursework to make a total of 120 semester hours

# **Option X: Computational Biology**

- 5. Statistics and Data Sciences 329C or Mathematics 340L or 341; Mathematics 362K or Statistics and Data Sciences 321; and Statistics and Data Sciences 348
- Two courses from: Computer Science 303E, 313E, 323E, 323H, 324E, 326E, 327E, 329E, Mathematics 408D, 358K, [362K,] 378K, Statistics and Data Sciences 322, 323, 329D, 332, 335, 352, 353, 358, 374C, 374D, 374E.
- 7. Two courses from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471
- 8. Six hours chosen from any of the following courses:
  - a. Cellular, development, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 347 or 360K, 349, 350M, 360M, 361
  - b. Physiology, neuroscience, and behavior: Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374, Marine Science 355C[, Neuroscience 365R]
  - c. Ecology, evolution, and biodiversity: Biology 322, 324, 346, 351, 357, 364, 471G, 373, 375, Marine Science 320, 352C, 352D, 352E, 353, 354, 354C, 354E, 354Q, 356, 357

- 9. One additional laboratory course chosen from: Biology 320L, 122L, [323L<sub>7</sub>] 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, [160L] 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L, 174L, 478L, Marine Science 120L, 152L
- 10. Nine hours of additional upper-division biochemistry, biology, chemistry, marine science, mathematics, physics, and statistics and data sciences
- 11. Enough additional coursework to make a total of 120 semester hours

# **Option XI: Biology**

- 5. Two courses from cellular, developmental, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 347 or 360K, 349, 350M, 360M, 361
- 6. Two courses from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
- 7. Two courses from physiology, neurobiology, and behavior: Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374, Marine Science 355C[, Neuroscience 365R]
- 8. Two courses from ecology, evolution, and biodiversity: Biology 322, 324, 346, 351, 357, 364, 471G, 373, 375, Marine Science 320, 352C, 352D, 352E, 353, 354, 354C, 354E, 354Q, 356, 357
- Two additional laboratory courses: Biology
   320L, 122L, [323L,] 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 3
   54L, 455L, 456L, [160L] 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L 174L, 478L, Marine Science
   120L, 152L. One-hour laboratory courses may required credit for or registration in a complementary lecture course.
- 10. <u>Twelve [42]</u> additional hours in upper-division biochemistry, biology, chemistry, marine science, mathematics, statistics and data sciences, and physics
- 11. Enough additional coursework to make a total of 120 semester hours.

# **Option XII: Genetics and Genomics**

- 5. Biochemistry 369 or 339F
- 6. Biology 320, 325T, 349, 344, and 325L
- 7. Chemistry 320M
- 8. Three hours from: Biochemistry 339N, Biology 321G, Statistics and Data Sciences 348
- 9. Six hours from: Biology 326R, 327E, 327G, 354C, 366, 366R
- 10. Biology 320L or 349L
- 11. [42] Nine additional hours in upper-division biochemistry, biology, chemistry, mathematics, and statistics and data sciences
- 12. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students in all Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C*- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in *General Information*.

To graduate and be recommended for certification, students who follow the teaching Option must have a University grade point average of at least 2.50. They must earn a grade of at least C- in the supporting course in requirement 8, and in each of the professional development courses listed in requirement 10 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least C- in each of the courses listed in requirement 11. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

To graduate under the  $[\frac{\text{honors}}{\text{Program}}]$  Option  $\underline{IX}$ , students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and must present

their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

# **Order and Choice of Work**

{no change}

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN CHEMISTRY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Chemistry degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On May 10, 2017, the Dean's Scholars Steering Committee approved the proposal; and on September 28, 2017, the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved it. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

## PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN CHEMISTRY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Type of Change	<ul><li>✓ Academic Chan</li><li>✓ Degree Program</li></ul>	C	3 form required)		
Proposed classificati	ion Exclusive	⊠ General	☐ Major		
CONSULT LINDETERMINE I  Is this a new Is this progra Does the pro		RECTOR OF ACROVAL IS REQUESTION  That will be taught	CCREDITATION UIRED.  off campus?	IS YES, THE COLLEGE M N AND ASSESSMENT, TO  Yes  No  Yes	IUST

## 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR **EACH INDIVIDUAL CHANGE:**

## Option II: Computation

Change CH 368 (Topic: Computational Chemistry) to CH 354M, Introduction to Computational Methods in Chemistry.

Reason: The computational chemistry course has been offered under a variety of titles over the years. The Department of Chemistry created a stand-alone course, CH 354M, to standardize the titles.

### Change SDS 222 to SDS 322.

**Reason:** The Department of Statistics and Data Sciences created the course to vary in hours (two to three), but the department has only offered it as a three-hour course.

## Option III, Teaching

Update engineering courses under the mathematics, physical science, and engineering certification. Reason: Engineering an UTeach Natural Sciences reviewed and approved the new courses for teaching certifications in the College of Natural Sciences.

### Option IV, Chemistry Honors

Breadth requirement: Change three hours of honors coursework in BIO or CS to three hours of honors coursework from any department in CNS.

Reason: Computer Science honors courses are restricted, and requiring BIO honors was too restrictive on the students. Chemistry would like more freedom for their honors students to make choices in this requirement.

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

Reason: In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

### Special Requirements

Standardize language regarding requirements to graduate with Dean's Scholars degree options.

Reason: Since the honors options were added at different times as new BS degrees were created, standard language began to differentiate between degrees. The Dean's Scholars steering committee voted to establish standard language for all of its options.

<b>3.</b>	THIS PROPOSAL INVOLVES (	Please check all that apply)	
	Courses in other colleges	Courses in proposer's college that are frequently taken by students in other colleges	☐ Flags
	<ul><li>☐ Course in the core curriculum</li><li>☐ Change in admission requirements (external or internal)</li></ul>	Change in course sequencing for an existing program  Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office)	Courses that have to be added to the inventory
4.	SCOPE OF PROPOSED CHANG	C.E.	
4.	a. Does this proposal impact other If yes, then how would you do	er colleges/schools?	Yes 🛛 No 🗌
	Program did not provide an est	thematics, physical science, and engineerin timate of the number of students who might proved by UTeach Engineering.	
	Liberal Arts (COLA) or the Co six hours from one of the colle for petitions in situations wher	that Dean's Scholars must choose six hours ollege of Fine Arts (COFA). In practice, stuges, or a mixture from the colleges. This che students choose to take a mixture of COL nolars Program has approximately 200 major.	dents are allowed to count nange will eliminate the need A and COFA coursework. In
	Liberal Arts. Specific courses advising practice. Making an e colleges may be impacted. Bec	this change will impact the College of Finare not prescribed and the change is to mate stimate, perhaps ten seats per year distributeause the number of seats across both college and the College of Liberal Arts were not fee.	ch catalog language to current ted across all courses in both ges is estimated to be so
	b. Do you anticipate a net change If yes, how many more (or few	in the number of students in your college?	Yes 🗌 No 🖂
	c. Do you anticipate a net increas taking classes in your college?	e (or decrease) in the number of students fi	rom outside of your college Yes ☐ No 🏻
	d. Do you anticipate a net increas courses in other colleges?	ber of students and/or class seats involved. se (or decrease) in the number of students fir Y ber of students and/or class seats involved.	rom your college taking es  No  \
	potential budgetary impacts for a negligible increase in the number Option III, Teaching How many students do you ex Natural Sciences; minimal num	acted and their response(s) included: UTea h: David Allen, Director eptember 22, 2017	new sections or a non- st be at the college-level.  ach Engineering or UTeach

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No.

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Dean's Scholars approval: May 10, 2017 Dean's Scholars Steering Committee
UTeach Program: September 22, 2017 David Allen, UTeach Program, director
College approval date: September 9, 2017 Course and Curriculum Committee

September 28, 2017

Dean approval date: September 9, 2017 David Vanden Bout, Associate Dean for

September 28, 2017 Undergraduate Education

### PROPOSED NEW CATALOG TEXT:

### **BACHELOR OF SCIENCE IN CHEMISTRY**

{no change}

### **Prescribed Work Common to All Options**

{no change}

# Additional Prescribed Work for Each Option Option I: Chemistry

{no change}

### **Option II: Computation**

Students who complete Option II may simultaneously fulfill some of the requirements of the Certificate in Scientific Computation.

- 7. Mathematics 408C and 408D, or 408N, 408S, and 408M; and Statistics and Data Sciences 329C or Mathematics 340L or 341
- 8. One of the following sequences:
  - a. Physics 301, 101L, 316, and 116L
  - b. Physics 303K, 103M, 303L, and 103N or
  - c. Physics 317K, 117M, 317L, and 117N
- 9. Chemistry 354M [368 (Topic: Computational Chemistry)]
- 10. At least three semester hours chosen from the following laboratory courses: Biochemistry 369T, Chemistry 341, 369K, and 371K
- 11. Statistics and Data Sciences 322 [222] and three of the following courses; the student must complete coursework from at least two of the following areas.
  - a. Numerical methods: Chemical Engineering 348, Computer Science 323E, 323H, 367, Mathematics 348, Statistics and Data Sciences 335
  - b. Statistical methods: Biomedical Engineering 335, Mathematics 358K, 378K
  - c. Other computing topics: Computer Science 324E, 327E, 329E (approved topics), 377, Mathematics 346, 362M, 368K, 372K, 376C, Mechanical Engineering 367S, Statistics and Data Sciences 329D, 374C, 374D, 374E
- 12. Enough additional coursework to make a total of 127 semester hours

### **Option III: Teaching**

This Option is designed to fulfill the course requirements for certification as a middle grade or secondary school science teacher in Texas; the student chooses one of the following areas: composite science certification with chemistry as the primary teaching field; physical sciences certification; or physical science, mathematics, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. Information about additional teacher certification requirements is available from the UTeach-Natural Sciences academic adviser.

- 7. Mathematics 408C and 408D, or 408N, 408S, and 408M
- 8. History 329U or Philosophy 329U
- 9. One of the following sequences:
  - a. For students seeking composition science certification: Physics 301, 101L, 316, and 116L; or Physics 303K, 103M, 303L, and 103N; or Physics 317K, 117M, 317L, and 117N. Science 365 and Physics 108 (Topic: *Physics by Inquiry*) may substitute for Physics 316 and 116L, 317Land 117N, or 303L and 103N. Physics 108 is offered on the pass/fail basis.
  - b. For students seeking either physical sciences certification or, mathematics, physical science, and engineering certification: Physics 301, 101L, 316, 116L, 315, and 115L; or 303K, 103M, 303L, 103N, 315, and 115L
- 10. The requirements of one of the following certification areas:
  - a. For composite science certification:
    - i. Biology 311C and 311D
    - ii. Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement
    - iii. Enough additional approved coursework in biology, geological sciences, or physics to provide the required twelve [12] hours in a second field
    - iv. Chemistry 368 (Topic 1: *Research Methods: UTeach*) or, with the consent of the UTeach-Natural Sciences academic adviser, an upper-division chemistry course that includes a substantial research component
    - v. In place of requirements 4c through 4f of the prescribed work above, the following courses, for a total of at least thirty-four [34] semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353; and 455 or 456
  - b. For physical sciences certification:
    - i. Mathematics 427J or 427K and 427L
    - ii. Chemistry 153K, 354L, and 154K
    - iii. Chemistry 354 and three hours of upper-division coursework in physics
    - iv. Chemistry 368 (Topic 1: *Research Methods: UTeach*) or, with the consent of the UTeach-Natural Sciences academic adviser, an upper-division chemistry course that includes a substantial research component
    - v. In place of requirements 4c through 4f of the prescribed work above, the following courses, for a total of at least thirty-four [34] semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353, and 455 or 456
  - c. For mathematics, physical science, and engineering certification:
    - i. Mathematics 315C, 360M or 375D (Topic: *Discovery: Introduction to Advanced Study in Mathematics*), 427J or 427K, and 333L
    - ii. Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems)
    - [iii. Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach
      Natural Sciences academic adviser, an upper division chemistry course that includes a
      substantial research component] Engineering Studies 301; and Mechanical Engineering 377K
      upon approval of the project by the UTeach Program.

- [iv.] iii. In place of requirements 4c through 4f of the prescribed work above, the following courses, for a total of at least thirty [30] semester hours in chemistry: Chemistry 353 and 153K, 455, and Biochemistry 369
- 11. Eighteen [18] semester hours of professional development coursework consisting of:
  - a. Curriculum and Instruction 651S
  - b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
  - c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
  - d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
  - e. UTeach-Natural Sciences 101, 110, and 170
- 12. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: *Adolescent Development*), or Psychology 301 and 304; and Curriculum and Instruction 339E.
- 13. Enough additional coursework, if needed, to make a total of 126 semester hours

### **Option IV: Chemistry Honors**

- 7. Breadth requirement: An honors mathematics course, Chemistry 301H and 302H, Physics 301, 101L, 316, and 116L, and an additional three-hour honors-designated course from a department in the College of Natural Sciences. [a three-semester-hour honors course in biology or computer science.] Credit earned by examination may not be counted toward this requirement
- 8. Chemistry 317
- 9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 10. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars
- 11. Chemistry 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser, or six hours of Chemistry 379H
- 12. Twenty-two additional hours of coursework approved by the departmental honors adviser
- 13. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts
- 14. Enough additional coursework to make a total of 120 semester hours

### **Special Requirements**

Students in all Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least C- in the supporting course in requirement 7, and each of the professional development courses listed in requirement 10 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least C- in each of the courses listed in requirement 11. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.

To graduate under Option IV, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, [earn grades of at least A in the departmental research and thesis courses described in requirement 10 above,] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum [may be found on the College of Natural Sciences website.] is available at https://cns.utexas.edu

### Order and Choice of Work

{no change}

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Computer Science degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On May 10, 2017, the Dean's Scholars Committee approved the proposal; and on September 28, 2017, the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved it. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Гу]	pe of Change		ige n Change (THECB	form required)		
Pro	oposed classificat	ion Exclusive	⊠ General	☐ Major		
۱.	CONSULT LIN		RECTOR OF AC	CREDITATION A	YES, THE COLLEGE I ND ASSESSMENT, TO	
	<ul><li> Is this progr</li><li> Does the pro</li></ul>	degree program? am being deleted? ogram offer courses to s in this program be of	_	off campus?	Yes	
2.		ANGE TO DEGREI DUAL CHANGE:	E PROGRAM AN	ID GIVE A DETAI	LED RATIONALE FO	R
	Option III, Comp	outer Science Honors	<u> </u>			
	Reason: In pract	tice, the Dean's Scho hours from both colle	lars Program allow		nd Liberal Arts.  shours from a single coll by to advising practice ar	
	Option V, Teach	ing (senior grades)				
	321.	•		•	d Statistics) to M 362K of This change is to make a	
	Special Requirer	ments_				
	was discovered t <b>Reason:</b> This int	hat this option did no	ot include the prog ed in error from pro	ram requirements.	's Scholars degree option  Dean's Scholars steering	s, it
3.		AL INVOLVES (Plin other colleges	Courses in pr	oposer's college ently taken by	☐ Flags	
	Course i	n the core	students in ot Change in co an existing pr	urse sequencing for	Courses that have be added to the inventory	to
		in admission nents (external or	catalog langu	s not explicit in the age (e.g., lists of urses maintained at office)	mventory	
١.		OPOSED CHANGI			Yes ⊠ No □	
	2000 and pr	-r -sar mpace saler			2 LJ - 10 L	

If yes, then how would you do so?

The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.

There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.

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	om outside of your college
	taking <u>classes in your college</u> ?	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	om your college taking
	courses in other colleges? Ye	es 🗌 No 🔯
	If yes, please indicate the number of students and/or class seats involved.	

If 4 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:

Person communicated with:

Date of communication:

Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Dean's Scholars approval date: May 10, 2017 Dean's Scholars Steering Committee College approval date: April 20, 2017 Course and Curriculum Committee

September 28, 2017

Dean approval date: September 28, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

### PROPOSED NEW CATALOG TEXT:

### BACHELOR OF SCIENCE IN COMPUTER SCIENCE

{no change}

## **Prescribed Work Common to All Options**

{no change}

**Additional Prescribed Work for Each Option** 

### **Option I: Computer Science**

{no change}

### **Option II: Turing Scholars Honors**

{no change}

## **Option III: Computer Science Honors**

- 6. Breadth requirement: An honors mathematics course; Computer Science 311H and 314H; one of the following two-semester sequences: Biology 315H and 325H, Chemistry 301H and 302H, Physics 301, 101L, 316, and 116L; and either an additional three hours chosen from these courses or Physics 315and 115L. Credit earned by examination may not be counted toward this requirement.
- 7. At least six semester hours of upper-division coursework in mathematics
- 8. Computer Science 429H, 331H, 439H, and <u>twelve</u> [<del>12</del>] additional hours of upper-division coursework in computer science
- 9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 11. Computer Science 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser
- 12. Twenty-five [25] additional semester hours of coursework approved by the departmental honors adviser
- 13. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts
- 14. Enough additional coursework to make a total of 120 semester hours

# **Option IV: Integrated Program**

{no change}

### **Option V: Teaching (Senior grades)**

- 6. History 329U or Philosophy 329U
- 7. Mathematics 408C and 408D, or 408N, 408S, and 408M; either 340L or 341 or Statistics and Data Sciences 329C
- 8. One of the following sequences of coursework:
  - a. Biology 311C and 311D
  - b. Chemistry 301 or 301H, and 302 or 302H
  - c. Physics 303K and 103M, 301 and 101L, or 317K and 117M; and 303L and 103N, 316 and 116L, or 317L and 117N
- 9. The following courses in computer science:
  - a. Theory: Computer Science 311 or 311H, 331 or 331H, and three additional hours from an approved list available in the department
  - b. Programming: Computer Science 312, 314 or 314H, and three additional hours from an approved list available in the department
  - c. Systems: Computer Science 429 or 429H, 439 or 439H, and three additional hours from an approved list available in the department
- 10. The requirements of one of the following certification areas:
  - a. For computer science certification:
    - i. Mathematics 362K [and] or Statistics and Data Sciences 321
    - ii. An additional sequence chosen from the following:
      - i. Biology 325 and 337 (Topic 2: Research Methods: UTeach)
      - ii. At least three hours of upper-division coursework in chemistry approved by the undergraduate adviser; and Chemistry 368 (Topic 1: Research Methods: UTeach)
      - iii. Physics 315 and 341 (Topic 7: Research Methods: UTeach)

- iii. Fifteen [15] additional hours of approved computer science upper-division coursework
- b. For computer science and mathematics certification:
  - i. Mathematics 315C, 333L, 362K, either 360M or 375D, and Statistics and Data Sciences 321
  - ii. Twelve [12] additional hours of approved computer science upper-division coursework.
  - iii. Biology 337 (Topic 2: Research Methods: UTeach), or Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach)
- 11. Eighteen [18] semester hours of professional development coursework consisting of:
  - a. Curriculum and Instruction 651S
  - b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
  - c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
  - d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
  - e. UTeach-Natural Sciences 101, 110, and 170
- 12. Enough additional coursework to make a total of 127 semester hours

### **Special Requirements**

Students in all Options must fulfill both the University's general requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in *General Information*.

To graduate under Option III, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu.

To graduate and be recommended for certification students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least C- in the supporting course in requirement 6, and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

Enrollment in Computer Science 312, 311 or 311H, and 314 or 314H is restricted to computer science entry-level majors. All other computer science courses that may be counted toward a degree in computer science are restricted to students who have been admitted to the computer science major or have the consent of the undergraduate faculty adviser.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate adviser in computer science.

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN HUMAN DEVELOPMENT AND FAMILY SCIENCES DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science Human Development and Family Sciences degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. On April 14, 2017, the Human Development and Family Sciences Curriculum Committee approved the proposal; and on September 27, 2017, the College Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, approved it. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Clau W. Driekwan

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

Tyme of Change

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN HUMAN DEVELOPMENT AND FAMILY SCIENCES DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

☐ Degree Program Change (THECB form required)	
Proposed classification	
<ul><li> Is this program being deleted?</li><li> Does the program offer courses that will be taught off campus?</li></ul>	

# 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

We propose to update required courses in the Human Development and Family Sciences curriculum to conform with changes in the field and changes in the content and availability of our courses. The proposed changes and the rationales for each change are as follows:

Changes common to more than one degree option

M Acadamia Change

M 408R: Add M 408R to the calculus options listed under #6 for Options I-IV.

Rationale: M 408R has been added by the Mathematics department as an option and is appropriate for our students.

Rewrite the statistics and mathematics requirement for Option VI, Honors in Advanced Human Development and Family Sciences.

**Rationale**: The department does not feel that honors calculus is necessary for the HAHDFS students, so we make the math and statistics requirement the same as for the other HDFS Options. Only Option V, Deans Scholars, continues to require either an honors statistics or calculus course, to be in keeping with the other Dean's Scholars BS programs in CNS.

Drop HDF 312 (Family Resource Management) as a required course in all Options and replace with three hours of coursework in Human Development and Family Sciences in Options I, II, III, and IV.

**Rationale:** The area of family resource management is no longer considered to be an essential or core component of the field of human development and family sciences. Also, the faculty member who taught this course has retired and the course will not be offered again.

HDF 466 (Guidance in Adult-Child Relationships)

a. Add HDF 466 as a required course in Option I (Early Childhood).

**Rationale:** This course is essential to the early childhood curriculum, as it provides four hours per week of lab experience with young children as well as instruction in positive child guidance, and it is required for all early childhood practicums. We thought it was already required for Option I majors, and students in Option I have been advised to take it, but due to an oversight, it was not in the catalog.

b. Add HDF 466 to the list of courses in Option II (Human Development) from which students must choose three additional semester hours.

Rationale: HDF 466 now covers family interactions as well as interactions with young children.

Drop HDF 356 (Evolution of Relationships) from Options II, III, IV, V, and VI

Rationale: The faculty member who taught this course has left, and we do not plan to offer this course again.

Add HDF 338, 340, and 378K to the list of courses in the honors programs (Options V and VI) from which students must choose upper-division HDF hours (#8 in Option V and #9 in Option VI).

Rationale: This adds flexibility in course offerings to our two honors options. Any HDF 378K topic will count.

### Option I, Early Childhood

Drop HDF 378L (Theories of Human Development) as a required course and add it to the list of courses in Option I from which students must choose six additional semester hours.

Rationale: Although this course is relevant and useful for students in the early childhood option, it is not essential.

Add 378K (Topic 9: Introduction to Child Life) to the list of courses from which students must choose six additional semester hours.

**Rationale:** This new topics course is designed for students who are interested in future careers as Child Life Specialists (pediatric health care professionals who work with young children and their families in hospitals to help them cope with the challenges of hospitalization, illness, and disability).

Add HDF 347 (Socioeconomic Problems of the Family) to the list of courses from which students must choose six additional semester hours.

**Rationale:** The content of HDF 347 was recently modified to include a greater emphasis on effects of poverty and discrimination in young children's development, making it relevant to this option.

### Option II, Human Development

Add HDF 378K (Topic 10: Sexuality in Human Development and Family Relationships) to the list of courses from which students must choose three additional semester hours.

Rationale: This new topic course covers the role of sexuality in human development.

### Option III, Families and Personal Relationships

Add HDF 335 (Adult Development) and HDF 378K (Topic 10: Sexuality in Human Development and Family Relationships) to the list of courses in Option III (Families and Personal Relationships) from which student must choose three hours (Option III #6).

**Rationale:** Previously, under Option III #6, students were required to choose three hours from HDF 356 (Evolution of Relationships) and HDF 372K (Families in Transition). Since HDF 356 is no longer available, we would like to replace it with the choice of three hours chosen from the three courses in our curriculum that are most relevant to the topic of personal relationships (HDF 372K, HDF 335, and the new HDF 378K Topic 10: *Sexuality in Human Development and Family Relationships*). This also gives students more choices.

Add HDF 378K (Topic 10: Sexuality in Human Development and Family Relationships) to the list of courses in Option III #7 from which students must choose six additional hours.

Rationale: As noted above, this is a new topics course that is very relevant to the topic of personal relationships.

### Option IV, Families and Society

Add HDF 338, 378K (Topic 9: *Introduction to Child Life*) and 378K (Topic 10: *Sexuality in Human Development and Family Relationships*) to the list of courses in Option IV (Families and Society) from which students must choose six additional hours.

**Rationale:** Option IV covers interrelations between families and social policies and institutions. Both of our new topics courses are relevant to this option. The Child Life topics courses deals with children and families in hospital settings, and the sexuality course covers how social policies affect human sexuality. In addition, HDF 338 has been overlooked as relevant courses for this option. HDF 338 deals with use of developmentally appropriate practices in childcare settings.

# Option V, Human Development and Family Sciences Honors

Reduce elective hours in Option V (Dean's Scholars) from twenty-one to ten.

Rationale: The Dean's Scholars option was off in hours. This is a correction to bring the degree to 120 hours.

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

**Reason:** In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

3.	THIS PROPOSAL INVOLVES (Ple	ease check all that apply)						
	○ Courses in other colleges	Courses in proposer's college that are frequently taken by students in other colleges	☐ Flags					
	Course in the core curriculum	Change in course sequencing for an existing program	Courses that have to be added to the inventory HDF 378K, Topic 9 HDF 378K, Topic 10					
	Change in admission requirements (external or internal)	Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office)	•					
4.	SCOPE OF PROPOSED CHANGE							
	a. Does this proposal impact other configuration. If yes, then how would you do so	olleges/schools?	Yes ⊠ No □					
	(COLA) or the College of Fine As colleges, or a mixture from the co	The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has						
	courses are not prescribed and the perhaps ten seats per year distribu	change is to match catalog language to cut ted across all courses in both colleges may o be so small, the College of Fine Arts and	arts and the College of Liberal Arts. Specific rrent advising practice. Making an estimate, be impacted. Because the number of seats the College of Liberal Arts were not					
	b. Do you anticipate a net change in If yes, how many more (or fewer)	the number of students in your college? students do you expect?	Yes ☐ No ⊠					
	c. Do you anticipate a net increase (o your college?	or decrease) in the number of students from	n <u>outside</u> of your college taking <u>classes in</u> Yes ☐ No ☑					
	d. Do you anticipate a net increase (o colleges?	of students and/or class seats involved. or decrease) in the number of students from Yes No of students and/or class seats involved.						
		such as requiring new sections or a non-r	s. If the proposal has potential budgetary negligible increase in the number of seats					
	How many students do you expec	t to be impacted?						
	Impacted schools must be contact	ed and their response(s) included:						
	Person communicated with: Date of communication:							
	Response:							
	e. Does this proposal involve change courses, flags)? <b>No.</b> If yes, explain		cation requirements (42-hour core, signature					
		ust be informed of the proposed changes	and their response included:					

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? **No.** Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: April 14, 2017 Human Development and Family

Sciences Curriculum Committee

Dr. Stephen Russell, Chair, Department of Human Development

and Family Sciences

Dr. Deborah Jacobvitz, Director, School of Human Ecology

College approval date: September 27, 2017 Course and Curriculum Committee
Dean approval date: September 27, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

### PROPOSED NEW CATALOG TEXT:

### BACHELOR OF SCIENCE IN HUMAN DEVELOPMENT AND FAMILY SCIENCES

{no changes}

### **Prescribed Work Common to All Options**

{no changes}

### **Additional Prescribed Work for Each Option**

# **Option I: Early Childhood**

This Option is designed to provide the necessary foundation for further study or a career in working with children in applied settings.

- 6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
- 7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted
- 8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals
- 9. Nutrition 306; Human Development and Family Sciences 304, [312,] 313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R and [three] six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose practicum applications have been approved. Practicum applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
- 10. Human Development and Family Sciences 338 and [378L] 466; and six additional semester hours chosen from Human Development and Family Sciences 342, 345, 347, 351, 358, 362, [and] 378K (Topic 6: *Introduction to Early Childhood Intervention*) and Topic 9: *Introduction to Child Life*), and 378L.
- 11. Enough additional coursework to make a total of 120 semester hours

### **Option II: Human Development**

This Option involves the study of development across the life span.

- 6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
- 7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
- 8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals
- 9. Nutrition 306; Human Development and Family Sciences 304, [312,]-313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R and [three] six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
- 10. Human Development and Family Sciences 378L; six semester hours chosen from Human Development and Family Sciences 335, 351, and 371; and three additional semester hours chosen from Human Development and Family Sciences 335, 342, 343, 345, 351, 353, 356, 358, 466, 371[, and] 372K, and 378K (Topic 10: Sexuality in Human Development and Family Relationships).
- 11. Enough additional coursework to make a total of 120 semester hours

### **Option III: Families and Personal Relationships**

This Option involves the study of the formation and maintenance of close relationships, especially couple and family relationships.

- 6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
- 7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
- 8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals
- 9. Nutrition 306; Human Development and Family Sciences 304, [312,]313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R; and [three] six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
- 10. Human Development and Family Sciences 337, and [either 356 or 372K] three hours chosen from Human Development and Family Sciences 335, 372K, and 378K (Topic 10: Sexuality in Human Development and Family Relationships).
- 11. Six additional semester hours chosen from Human Development and Family Sciences 322, 335, 345, 347, 353, [356,] 358, 360, 371[, and] 372K, and 378K (Topic 10: Sexuality in Human Development and Family Relationships).
- 12. Enough additional coursework to make a total of 120 semester hours

### **Option IV: Families and Society**

This Option involves the study of the family and its interactions with larger socioeconomic systems, such as the economy, work, the media, public policy, and government.

- 6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
- 7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.

- 8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.
- 9. Nutrition 306; Human Development and Family Sciences 304, [312,] 313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R; and [three] six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
- 10. Human Development and Family Sciences 347 and 362; and six additional semester hours chosen from Human Development and Family Sciences 322, 338, 342, 343, 353, [356,] 360, and 378K (Topic 6: *Introduction to Early Childhood Intervention*), Topic 9: *Introduction to Child Life*, and Topic 10: *Sexuality in Human Development and Family Relationships*).
- 11. Enough additional coursework to make a total of 120 semester hours

### **Option V: Human Development and Family Sciences Honors**

This Option is designed to prepare students who have been admitted to the Dean's Scholars program for academic or research careers.

- 6. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315H and 325H; Chemistry 301H and 302H; and three additional hours of honors-designated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
- 7. Human Ecology 115H and 225H
- 8. Human Development and Family Sciences 304H, [312,] 313H, 113L, 315L, and [15] eighteen semester hours chosen from the following: Human Development and Family Sciences 335, 337, 338, 340, 342, 343, 345, 347, 351, 353, [356,] 358, 362, 371, 372K, 378L, 378K, and approved social science courses.
- 9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 11. Human Development and Family Sciences 355H and 379H
- 12. [21] Ten additional semester hours of coursework approved by the departmental honors adviser
- 13. Six hours of coursework [in] from the College of Liberal Arts [or] and/or the College of Fine Arts
- 14. Enough additional coursework to make a total of 120 semester hours

### Option VI: Honors in Advanced Human Development and Family Sciences

This Option is designed for highly motivated and talented students who are interested in research experience and training.

- 6. [A calculus course and a statistics course, one of which must be a designated honors course] Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332.
- 7. Chemistry 301 or 301H; Biology 311C; and Biology 311D or Chemistry 302 or 302H
- 8. Three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
- 9. Human Development and Family Sciences 304H, [312,] 313H, 113L, and 315L; [15] eighteen semester hours chosen from: Human Development and Family Sciences 335, 337, 338, 340, 342, 343, 345, 347, 351, 353, [356,]358, 362, 371, 372K, 378L, 378K, and approved social science courses.
- 10. Human Development and Family Sciences 355H and 379H
- 11. Twenty-one [21] semester hours of additional upper-division coursework approved by the departmental honors adviser
- 12. Enough additional coursework to make a total of 120 semester hours

# **Special Requirements**

Students in all Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C*- in each mathematics and science course required for the degree, and grade point average in

these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate under Option V, students must remain in good standing in the Dean's Scholars Honors Program, must <u>submit an honors thesis approved by the departmental honors adviser</u> [earn grades of at least *A* in the departmental research and thesis eourses described in requirement 10 above,] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. <u>More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.</u>

To graduate under Option VI, students must remain in good standing with an overall in-residence grade point average of at least 3.30 and an overall grade point average of 3.50 in all human development and family sciences courses. In addition, student research conducted in Human Development and Family Sciences 355H and 379H must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum. Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the human development and family sciences honors adviser, a student may be allowed to continue under academic review.

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN NEUROSCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Neuroscience degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Biology Course and Curriculum Committee approved the proposal on September 27, 2017; it was approved by the College Course and Curriculum Committee and by Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 29, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

llan W. Oriekwan

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN NEUROSCIENCE DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Type of Change  Academic Change  Degree Program	C	form required)	
Proposed classification	☐ General	☐ Major	
<ol> <li>IF THE ANSWER TO ANY OF THE CONSULT LINDA DICKENS, DIE DETERMINE IF SACSCOC APPRING IS this a new degree program?</li> <li>Is this program being deleted?</li> <li>Does the program offer courses the Will courses in this program be designed.</li> </ol>	RECTOR OF ACROVAL IS REQU	CREDITATION JIRED. off campus?	

# 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

### Option 1, Neuroscience Scholars

Req 12: Add NEU 365D to list of nine hours of UD Neuroscience chosen from approved list. Remove NEU 466G and 466N from the approved list.

**Reason:** NEU 365D added to make it consistent with other NEU degree options. NEU 466G and 366N removed since they are already listed as course options in Req 11.

Remove NEU 377 from requirement 13 and add it to requirement 11. Limit the number of NEU 377 hours that may count toward the laboratory requirement.

### Option 2, Neuroscience Honors

Add Biology 206L

Reduce the required NEU lab hours from nine to six.

Add BIO 359K and 367C to the list of approved NEU courses in requirement 14.

**Reason:** George Pollak, the Dean's Scholars advisor in NEU brought this to my attention and the logic behind his proposed changes. He did a nice job of summarizing the issue, so I'm going to just copy his summary of the problem as he saw it.

There is a small problem with the current Dean's Scholars Neuroscience program that Mark Hemenway brought to my attention. Specifically, BIO 206L needs to be added to the required curriculum because that course is a prerequisite for NEU 335, which is why it should be part of the degree requirements. What I suggested is that the number or required lab courses be reduced from three labs to two lab courses. This would reduce the number of required house by three, but would add two hours (206L), thus there would be a net reduction of one hour. To compensate, I suggest that the current eight additional hours, which are approved by the Honors Faculty Advisor, be increased to nine hours.

I talked to George about an alternative, in adding 206L, keeping the three labs but dropping those eight additional hours down to six, but he preferred his solution. So, we went with it.

Change the number of approved electives from eight to nine hours.

**Reason:** Altered due to the addition of BIO 206L and the reduction of three hours of lab coursework.

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

**Reason:** In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

### Option 3, Neuroscience

Req 11: Add NEU 466G and 466M to the statement that courses may only count toward Req 10 or 11. Remove all BCH and BIO courses from requirement 11.

Req 10: Specify that a maximum of six hours of NEU 377 may count toward requirement 10. The course inventory form for NEU 377 will be altered accordingly.

**Reason:** We originally put all of those BCH/BIO lab courses in the option III BS degree plan because we feared that we might not have the throughput to handle all of these students in NEU lab courses. At the time, we did not have good ideas of how many students would be in the various BS degree plans as well as in the BSA. Most of our students are flocking to the BSA option and our lab classes are not all filling. We thus feel we could accommodate all of the option III NEU students in our NEU labs and we'd rather have them take NEU labs than BIO/BCH labs. This is how we would like to have written the degree plans to begin with but were unsure about throughput, so we played it safe by adding all of those BIO/BCH labs.

### Special Requirements

Standardize language regarding requirements to graduate with Dean's Scholars degree options.

**Reason:** Since the honors options were added at different times as new BS degrees were created, standard language began to differentiate between degrees. The Dean's Scholars Steering Committee voted to establish standard language for all of its options.

3.	TH	IIS PROPOSAL INVOLVES (I	Please check all that apply)	
		Courses in other colleges	Courses in proposer's college that are frequently taken by students in other colleges	Flags
		Course in the core	☐ Change in course sequencing for	Courses that have to be
	_	curriculum	an existing program	added to the inventory
	L	Change in admission	Requirements not explicit in the	
		requirements (external or internal)	catalog language (e.g., lists of acceptable courses maintained by	
		memai)	department office)	
4.	SC	OPE OF PROPOSED CHANG	SE.	
	a.	Does this proposal impact other	r colleges/schools?	Yes 🛛 No 🗌
		If yes, then how would you do	so?	
			hat Dean's Scholars must choose six hours	
			llege of Fine Arts (COFA). In practice, stu	
			or a mixture from the colleges. This change	
		-	idents choose to take a mixture of COLA a	
		constant state, the Dean's Schol	ars Program has approximately 200 majors	S.
			this change will impact the College of Fine	
			are not prescribed and the change is to mate	
			stimate, perhaps ten seats per year distribut	
			ause the number of seats across both college	
		permission to make this change	and the College of Liberal Arts were not for	ormally consulted for
	b.		in the number of students in your college?	Yes 🗌 No 🔯
	υ.	If yes, how many more (or few		ies 🗀 ito 🖂
	c.		e (or decrease) in the number of students fr	om outside of your college
		taking classes in your college?	· (	Yes No 🖂
			per of students and/or class seats involved.	
	d.		e (or decrease) in the number of students fr	
		courses in other colleges?		es 🗌 No 🔀
		If yes, please indicate the numb	per of students and/or class seats involved.	

If 4 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:

Person communicated with:

Date of communication:

Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: October 18, 2016 Michael Mauk, chair

September 25, 2017

Department approval date: September 27, 2017 Biology Course and Curriculum College approval date: March 9, 2017 Course and Curriculum Committee

September 29, 2017

Dean approval date: September 29, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

### PROPOSED NEW CATALOG TEXT:

### BACHELOR OF SCIENCE IN NEUROSCIENCE

{no change}

# **Prescribed Work Common to All Options**

{no change}

## **Option I: Neuroscience Scholars**

- 4. Mathematics 408C, or 408N and 408S; Statistics and Data Sciences 328M
- 5. An eight-hour physics sequence chosen from the following:
  - a. Physics 317K, 117M, 317L, and 117N
  - b. Physics 303K, 103M, 303L, and 103N
  - c. Physics 301, 101L, 316, and 116L
- 6. Chemistry 301 or 301H, 302 or 302H, and 204
- 7. Biology 311C and 311D, or 315H and 325H, and 206L
- 8. Three additional majors-level courses selected from one of the following sequences:
  - a. Biology: Biology 325 or 325H, 320, 344, 349, and 370
  - b. Chemistry: Chemistry 328M and 128K, 328N and 128L, 353 or 353M, and Biochemistry 369
  - c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E
  - d. Mathematics: Mathematics 427J or 427K, 427L, 340L or 341, 362K, 378K, Statistics and Data Sciences 321 or 329C; Mathematics 362K and Statistics and Data Sciences 321 may not both count.
  - e. Physics: Physics 345, 338K, 355

- f. Psychology: Psychology 301, 323, 353K, 355
- 9. Neuroscience 330
- 10. Neuroscience 335
- 11. <u>Twelve</u> [42] semester hours of laboratory courses chosen from the following: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, <u>377</u>, 466G, and 466M. <u>A maximum of 3 hours of Neuroscience 377 may count.</u>
- 12. Nine semester hours of upper-division neuroscience to be chosen from: Biology 325, 359K, 367C, Neuroscience 337, 365D, 365T, 365W, 366C, 366D, [466G, 366N,] 367F, 367V, and 371M; Biology 325 or 325H may count toward either requirement 8a or requirement 12
- 13. Three semester hours of [either Neuroscience 377 (Undergraduate Research) or] Neuroscience 379H (Honors Tutorial Course)[; the research topic in Neuroscience 377 or 379H must relate to neuroscience and be approved in advance by the faculty adviser]
- 14. Enough additional coursework to make a total of 120 semester hours

### **Option II: Neuroscience Honors**

- 4. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and one of the following: Physics 301 and 101L; or Physics 316 and 116L; credit earned by examination may not be counted toward this requirement.
- 5. Three hours of statistics chosen from the following: Statistics and Data Sciences 321, 325H, or 328M; other statistics courses may be approved by the departmental honors adviser.
- 6. One of the following:
  - a. Physics 315 and 115L
  - b. Physics 316 and 116L
  - c. Physics 338K, 345, 355

Courses counted toward requirement 4 may not also be counted toward requirement 6.

- 7. <u>Biology 206L and Chemistry 204</u>
- 8. Chemistry 128K, 128L, 328M, and 328N
- 9. Biology 320 or 344
- 10. Biology 349 and 370
- 11. Neuroscience 330
- 12. Neuroscience 335
- 13. [Nine] Six hours of laboratory courses chosen from: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M
- 14. Six hours of upper-division neuroscience chosen from: <u>Biology 359K, 367C</u>, Neuroscience 337, 365D, 365T, 365W, 366C, 366D, 367F, 367V, 371M, 377
- 15. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 16. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 17. Two semesters of Neuroscience 379H
- 18. [Eight] Seven additional semester hours of coursework approved by the departmental honors adviser
- 19. Six semester hours of coursework [in] from the College of Liberal Arts [or] and/or the College of Fine Arts
- 20. Enough additional coursework to make a total of 120 semester hours

# **Option III: Neuroscience**

- 4. Mathematics 408C, or 408N and 408S; and Statistics and Data Sciences 328M
- 5. An eight\_hour physics sequence chosen from the following:
  - a. Physics 317K, 117M, 317L, and 117N
  - b. Physics 303K, 103M, 303L, and 103N
  - c. Physics 301, 101L, 316, and 116L
- 6. Chemistry 301 or 301H, 302 or 302H, and 204
- 7. Biology 311C, 311D, and 325 or 315H and 325H

- 8. Biology 206L
- 9. Neuroscience 330 and 335
- 10. <u>Fifteen [15]</u> hours of upper-division neuroscience chosen from Biology 359K, 367C, Neuroscience 337, 365D, 365L, 365T, 365W, 366C, 366D, 366E, 366L, 366N, 366P, 366S, 367F, 367V, 367W, 371M, 377, 466G, 466M. A maximum of six hours of Neuroscience 377 may count.
- Six additional hours of upper-division laboratory course work chosen from the following: [Biochemistry 369T, Biology 320L, 321L, 325L, 331L, 340L, 446L, 448L, 453L, 354L, 455L, 456L, 369L, 478L,]
   Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M. Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, [and] 367W, 466G, and 466M may count toward requirement 10 or requirement 11.
- 12. Enough additional coursework to make a total of 120 semester hours

### **Special Requirements**

Students must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in *General Information*.

To graduate under Option II, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu.

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN MATHEMATICS DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Human Development and Family Sciences degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Mathematics Curriculum Committee approved the proposal on March 14, 2017; it was approved by the Dean's Scholars Steering Committee on May 10, 2017; and by the Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 27, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

llan W. Oriekwan

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN MATHEMATICS DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Ту	Degree Program Change (THECB form required)				
Pr	Proposed classification    Exclusive				
1.	IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AND ASSESSMENT, TO DETERMINE IF SACSCOC APPROVAL IS REQUIRED.				
	<ul> <li>Is this a new degree program?</li> <li>Is this program being deleted?</li> <li>Does the program offer courses that will be taught off campus?</li> <li>Will courses in this program be delivered electronically?</li> <li>Yes □ No ☒</li> <li>Yes □ No ☒</li> </ul>				
•	EVDI AIN CHANCE TO DECDEE DOOCDAM AND CIVE A DETAILED DATIONALE EOD				

# 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

### Option I (Actuarial Science) and VII (Mathematics)

Add statement that a mathematics independent inquiry flagged course may substitute for a course that is identified as containing an inquiry-based learning component.

**Reason:** Mathematics courses that have earned an independent inquiry flag is appropriate to meet the inquiry-based learning requirement.

### Option V: Teaching

Update engineering courses under the mathematics, physical science, and engineering certification.

**Reason:** Engineering and UTeach reviewed and approved the new courses for teaching certifications in the College of Natural Sciences.

## Option VI: Mathematics Honors

Replace an honors section of M 427K with an honors section of M 427J.

**Reason:** The Department of Mathematics is no longer teaching an honors section of M 427K.

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

**Reason:** In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

### Option VII: Mathematics

Break requirement 8 into requirements 8 through 12. Require a minimum of thirty-three upper-division hours in Mathematics.

**Reason:** This option was new in the 2016-18 catalog. For the 2016-18 catalog, the department wanted students to complete eleven upper-division math courses with semester credit values of three or four hours. The purpose was to prevent students from counting courses with variable credit hours of one or two hours toward the total hours of upper-division mathematics. The 2016-18 proposal was altered to require students to complete a minimum of thirty-three upper-division

hours regardless of the courses chosen for requirement 8a. In practice, students who did not choose M 408M ended up taking more than thirty-three upper-division hours. The department began writing petitions

Yes 🗌 No 🔯

to reduce requirement 8d to seventeen hours for students in this situation. This 2018-20 revision is intended to resolve these issues without requiring individual petition approvals. 3. THIS PROPOSAL INVOLVES (Please check all that apply) ☐ Flags Courses in other colleges Courses in proposer's college that are frequently taken by students in other colleges Course in the core ☐ Change in course sequencing for Courses that have to curriculum an existing program be added to the inventory Change in admission Requirements not explicit in the requirements (external or catalog language (e.g., lists of internal) acceptable courses maintained by department office) 4. SCOPE OF PROPOSED CHANGE Does this proposal impact other colleges/schools? Yes No 🗌 If yes, then how would you do so? Option V, Teaching Very few students seek the mathematics, physical science, and engineering certification. The UTeach Program did not provide an estimate of the number of students who might take E S 301 and M E 377K. However, the additions are approved by UTeach Engineering. Option VI, Mathematics Honors The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors. There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change. Yes \ \ No \ \ b. Do you anticipate a net change in the number of students in your college? 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 4 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.

d. Do you anticipate a net increase (or decrease) in the number of students from your college taking

How many students do you expect to be impacted? Not provided by UTeach Engineering or UTeach Natural Sciences; minimal number.

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

Person communicated with: David Allen, director Date of communication: September 22, 2017

courses in other colleges?

If yes, please indicate the number of students and/or class seats involved.

If yes, please indicate the number of students and/or class seats involved.

Response: Suggested proposed changes.

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No.

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? No.

Note: THECB Semester Credit Hour Change Form required, download from URL:

http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=docID=2419&for

If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: March 14, 2017 Mathematics Curriculum Committee

Dean's Scholars approval: May 10, 2017 Dean's Scholars Steering Committee

UTeach Program: September 22, 2017 David Allen, UTeach Program, director

College approval date: April 6, 2017 Course and Curriculum Committee

September 27, 2017

Dean approval date: September 27, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

### PROPOSED NEW CATALOG TEXT:

### BACHELOR OF SCIENCE IN MATHEMATICS

{no change}

## **Prescribed Work Common to All Options**

{no change}

### **Additional Prescribed Work for Each Option**

### **Option I: Actuarial Science**

- 5. Eight semester hours of majors-level coursework in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
- 6. Complete one of the following:
  - a. Mathematics 408C\*, 408D, and 427L
  - b. Mathematics 408N, 408S, and 408M
  - c. Mathematics 408K, 408L, and 408M

- 7. Economics 304K and 304L
- 8. Accounting 310F or both 311 and 312
- 9. Finance 357
- 10. Computer Science 303E
- 11. Upper-division mathematics courses, including:
  - a. Mathematics 325K or 328K. Mathematics 328K is recommended for students with substantial experience in writing proofs.
  - b. Mathematics 341. Mathematics 340L may be substituted for 341 if the course was completed prior to entry into the mathematics entry-level major.
  - c. Mathematics 362K, and either 358K or 378K
  - d. Mathematics 329F, 339D, 339J, and 339U
  - e. Two courses from the following: Mathematics 339V, 339W, 349P

<sup>\*</sup>Mathematics 408N, and 408S, or 408K and 408L, may substitute for 408C

f. One additional course chosen from the following: Mathematics 339C, 339V, 339W, 349P, 349R, 378K

One of the courses fulfilling requirement 11a through 11f must be taught in the inquiry based learning (IBL) format or with an independent inquiry flag. IBL courses are identified each semester through a notation under the unique number in the course schedule and through a list maintained in the mathematics advising office in Robert Lee Moore Hall, room 4.101. Courses with an independent inquiry flag are identified in the Course Schedule.

- 12. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 1. Philosophy courses in logic, computer science courses in discrete mathematics, engineering courses, and actuarial foundation courses may not be used to fulfill this requirement.
- 13. Enough additional coursework to make a total of 120 semester hours.

### **Option V: Teaching**

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school mathematics teacher in Texas; the student chooses mathematics certification or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

Students are encouraged to become familiar with a variety of mathematical software relevant to middle grades or secondary teaching, such as computer geometry systems, spreadsheets, and statistical software. Whenever possible, the student should take courses and sections of courses that use these types of software.

- 5. History 329U or Philosophy 329U
- 6. One of the following sequences:
  - a. Mathematics 408C\* and 408D
  - b. Mathematics 408N and 408S
  - c. Mathematics 408K and 408L
    - \*Mathematics 408N and 408S, or 408K and 408L, may substitute for 408C
- 7. Mathematics 315C
- 8. Biology 337 (Topic 2: Research Methods: Uteach), Chemistry 368 (Topic 1: Research Methods: Uteach) or Physics 341 (Topic 7: Research Methods: Uteach)
- 9. The requirements of one of the following certification areas:
  - a. For mathematics certification:
    - i. Mathematics 340L or 341
    - ii. Mathematics 325K or 328K, 333L, 358K, and 362K. Mathematics 328K is recommended for students with substantial experience in writing proofs.
    - iii. Mathematics 375D
    - iv. Mathematics 361K or 365C
    - v. Mathematics 343K or 373K
    - vi. Mathematics 427J.
    - vii. Two courses chosen from: Mathematics 328K, 339J, 339U, 343K, 343L, 348, 361, 365C, 365D, 368K, 373K, 373L, 378K. A course used to fulfill requirements 9ai through 9avi may not also be counted toward requirement 9avii
    - viii. A three-semester-hour supporting course that uses mathematics but is in a field other than mathematics. The following courses may be used to fulfill this requirement: Accounting 310F or 311, Architectural Engineering 323K, Astronomy 307, 352K, 352L, 358, 367M, Chemistry 301 or 301H, 303, Civil Engineering 321, 341, Computer Science 303E, 313E, Economics 420K, Electrical Engineering 302, 366, 366L, Geological Sciences 346C, 354, 476K, Geography 360L, Government 341M, Human Development and Family Sciences 322, Mechanical Engineering 320, 326, 366L, 366Q, 366R, Petroleum and Geosystems Engineering 310, Physics 301, 303K, 303L, Psychology 325K, 332, Sociology 369L
  - b. For mathematics, physical science, and engineering certification:

- i. Mathematics 325K or 328K, 427J, 333L, 341, 358K, and 362K. Mathematics 328K is recommended for students with substantial experience in writing proofs
- ii. Mathematics 361K or 365C
- iii. Mathematics 375D
- iv. Physics 301, 101L, 316, 116L, 315, and 115L
- v. Chemistry 301 or 301H, 302 or 302H, and 204
- [vi. Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems)] Engineering Studies 301; and Mechanical Engineering 377K upon approval of the project by the UTeach Program.
- 10. [18] Eighteen semester hours of professional development coursework consisting of:
  - a. Curriculum and Instruction 651S
  - b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
  - c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
  - d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
  - e. UTeach-Natural Sciences 101, 110, and 170
- 11. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: *Adolescent Development*), or Psychology 301 and 304; and Curriculum and Instruction 339E. Students seeking mathematics, physical science, and engineering certification may not seek middle grade certification.
- 12. Enough additional coursework to make a total of at least 120 semester hours

### **Option VI: Mathematics Honors**

- 5. Breadth requirement: An honors mathematics course; one of the following two-semester sequences: Biology 315H and 325H, Chemistry 301H and 302H, or Physics 301, 101L, 316, and 116L; and nine additional semester hours chosen from the preceding courses, Physics 315 and 115L. Credit earned by examination may not be counted toward this requirement
- 6. An honors section of Mathematics <u>427J</u> [4<del>27K,</del>] and six semester hours of coursework chosen from Mathematics 365C, 367K, and 373K
- 7. <u>Twenty</u> [20] additional semester hours of upper-division coursework in mathematics approved by the departmental faculty adviser
- 8. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 9. A section of Rhetoric and Writing 309S that is restricted to students in the Dean Scholars Honors Program
- 10. Mathematics 379H
- 11. Thirty [30] additional semester hours of coursework approved by the departmental honors adviser
- 12. Six semester hours of coursework [in] from the College of Liberal Arts [or] and the College of Fine Arts
- 13. Enough additional coursework to make a total of 120 semester hours.

## **Option VII: Mathematics**

- 5. Eight semester hours of majors-level coursework in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics
- 6. Computer Science 303E
- 7. One of the following sequences:
  - a. Mathematics 408C\* and 408D
  - b. Mathematics 408N and 408S
  - c. Mathematics 408K and 408L
    - \*Mathematics 408N and 408S, or 408K and 408L, may substitute for 408C
- 8. [Additional mathematics including:]
  - [a-] Three of the following: Mathematics 408M or 427L, 427J, 341, 362K. Mathematics 340L may be substituted for 341 if the course was taken prior to entry into the mathematics entry-level major
- 9. [-b-] Mathematics 325K or 328K. Mathematics 328K is recommended for students with substantial experience in writing proofs
- 10. [e.] One of the following: Mathematics 343K, 361K, 365C, 367K, 373K

- 11. [d. 21 additional] Complete thirty-three hours of upper-division mathematics, chosen from requirements 8, 9, 10, and the following courses: Mathematics
  - 325K, 427J or 427K, 427L, 328K, 329F, 333L, 339C, 339D, 339J, 339U, 339V, 339W, 340L or 341, 343 K,
  - 343L, 344K, 346, 348, 349P, 349R, 358K, 361, 361K, 362K, 362M, 365C, 365D, 365G, 367K, 367L, 368 K, 372K, 373K, 373L, 374G, 374M, 375D, 378K, [and] 379H, and 375T. [Mathematics 375, 375C, and 375T may be applied toward this requirement with prior approval of the faculty adviser] Mathematics 374M may not count toward both requirement 11 and 13
- 12. [e-] One upper-division mathematics course identified as taught in the inquiry based learning (IBL) format or with an independent inquiry flag. IBL courses are identified each semester through a notation under the unique number in the Course Schedule and through a list maintained in the mathematics advising office in Robert Lee Moore Hall, room 4.101. Courses with an independent inquiry flag are identified in the Course Schedule. Courses counted toward requirements 8, 9, 10, and 11 may also count toward this requirement.

### [Mathematics courses listed in requirements 8a through 8d may only be applied toward one requirement.]

- 13. [9.] Mathematics in context. One course chosen from:
  - a. Mathematics 374M
  - b. Chemistry 353, 354
  - c. Computer Science 341, 342, 345, 346, 353, 367
  - d. Electrical Engineering 411, 325, 360C, 362K
  - e. Physics 329, 336K, 352K

Courses in requirements [9b through 9d] 13b through 13e may require additional prerequisites. Mathematics 374M may not count toward both requirement [8 and 9] 11 and 13.

- 14. [10.] At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 5. Philosophy courses in logic, computer science courses in discrete mathematics, engineering, and actuarial foundation courses may not be used to fulfill this requirement.
- 15. [11.] Enough additional coursework to make a total of 120 semester hours

## **Special Requirements**

{no change}

### DOCUMENTS OF THE GENERAL FACULTY

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN NUTRITION DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Nutrition degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Dean's Scholars Steering Committee approved the proposal on May 10, 2017. On September 20, 2017, it was approved by the College Course and Curriculum Committee and by Associate Dean David Vanden Bout, on behalf of Dean Hicke. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

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# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN NUTRITION DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Ty]	pe of Change		cademic Char egree Progran	nge n Change (THEC)	B form required)	
Pro	oposed classifica	tion [	Exclusive	☐ General	☐ Major	
1.	<ul><li>CONSULT LID</li><li>DETERMINE</li><li>Is this a new</li><li>Is this prog</li><li>Does the program</li></ul>	NDA D IF SAC w degree ram bei rogram	CKENS, DI CSCOC APP e program? ng deleted? offer courses		CCREDITATION AN UIRED.  off campus?	TES, THE COLLEGE MUST ND ASSESSMENT, TO  Yes  No
2.	EXPLAIN CH EACH INDIVI			E PROGRAM A	ND GIVE A DETAIL	LED RATIONALE FOR
	Reason: In prac	tice, th	e Dean's Scho rom both coll	lars Program allo		and Liberal Arts. hours from a single college or y to advising practice and
	Special Require	ments				
	Reason: Since	the hon- ntiate b	ors options we etween degree	ere added at differ es. The Dean's Scl	ate with Dean's Scholar ent times as new BS de nolars Steering Commi	egrees were created, language
3.	THIS PROPOS	in other  the co  m  admis	colleges re sion	are frequentl other college Change in co an existing p Requirement catalog langu	roposer's college that y taken by students in source sequencing for rogram is not explicit in the lage (e.g., lists of burses maintained by	☐ Flags ☐ Courses that have to be added to the inventory
4.	If yes, then The origina Liberal Art (COLA) or one of the o situations w	roposal how w il legisles the Co colleges where st	impact other ould you do so ation stated the lege of Fine A, or a mixture udents choose	colleges/schools? o? at Dean's Scholars  Arts (COFA). In p from the colleges	s must choose six hours ractice, students are all . This change will elim of COLA and COFA	Yes ⊠ No ☐ s from either the College of lowed to count six hours from hinate the need for petitions in coursework. In a constant

Yes 🗌 No 🔯

There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.

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 <u>classes in your college</u> ?	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

If 4 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:

If yes, please indicate the number of students and/or class seats involved.

Person communicated with:

Date of communication:

courses in other colleges?

Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

# If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Dean's Scholars approval date: May 10, 2017 Dean's Scholars Steering Committee
College approval date: September 20, 2017 Course and Curriculum Committee
Dean approval date: September 20, 2017 David Vanden Bout, Associate Dean for Undergraduate Education

# PROPOSED NEW CATALOG TEXT:

### BACHELOR OF SCIENCE IN NUTRITION

{no change}

**Prescribed Work Common to All Options** {no change}

**Additional Prescribed Work for Each Option** 

**Option I: Dietetics** 

{no change}

## **Option II: Nutritional Sciences**

{no change}

# **Option III: Nutrition and Public Health**

{no change}

### **Option IV: Honors in Advanced Nutritional Sciences**

{no change}

### **Option V: Nutrition Honors**

- 4. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315H and 325H; Chemistry 301H and 302H; and three additional hours of honors-designated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
- 5. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L
- 6. Chemistry 204, 320M, and 320N, and Biochemistry 369
- 7. Neuroscience 365R and Biology 365S
- 8. Nutrition 312H, 312H, 338H, 342, 343 or 365 (Topic 1: *Vitamins and Minerals*), and 365 (Topic 2: *Nutrition and Genes*; or Topic 4: *Obesity and Metabolic Health*)
- 9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 11. Nutrition 355H and 379H
- 12. Six semester hours of additional coursework in nutrition or related area approved by the departmental honors adviser
- 13. Six semester hours of coursework [in] from the College of Liberal Arts [or] and/or the College of Fine Arts
- 14. Enough additional coursework to make a total of 120 semester hours

# **Option VI: International Nutrition**

{no change}

### **Special Requirements**

Students in all options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate under Option IV, students must remain in good standing with an overall grade point average of at least 3.30 and an overall grade point average of 3.50 in all nutritional sciences courses. In addition, student research conducted in courses described in requirement 10 must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum. Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the nutritional sciences honors adviser, a student may be allowed to continue under academic review.

To graduate under Option V, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser [earn grades of at least A in the departmental research and thesis courses described in requirement 10,] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Note:

Nutritional Sciences courses with numbers ending in H are intended for students in Option IV, Honors in Advanced Nutritional Sciences and in Option V, Nutrition Honors. Students outside these options may enroll in these courses with the consent of the nutritional sciences honors adviser.

To be eligible to apply for a dietetic internship or to practice as a Registered Dietetic Technician, additional coursework would be required for students earning a degree in Options II-VI.

#### DOCUMENTS OF THE GENERAL FACULTY

## PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN PUBLIC HEATLH IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Public Health degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Program Director, Leanne Field, approved the proposal on May 2, 2017; it was approved by the School of Human Ecology, Director Deborah Jacobvitz, on June 14, 2017; and by the College Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 13, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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To be counted, a protest must be received in the Office of the General Faculty by March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

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## PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN PUBLIC HEATLH IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Change   ☐ Academic Change ☐ Degree Program Change (THECB form required)				
d classification				
1. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MU CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AND ASSESSMENT, TO DETERMINE IF SACSCOC APPROVAL IS REQUIRED.				
Is this a new degree program?	Yes 🗌 No 🖂			
Is this program being deleted?	Yes 🗌 No 🖂			
Does the program offer courses that will be taught off campus?	Yes 🗌 No 🖂			
Will courses in this program be delivered electronically?	Yes 🗌 No 🔀			
	Degree Program Change (THECB form required)  d classification			

## 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

#### Prescribed Work Common to All Options

Foundation courses, 1c: Addition of NTR 112L

**Reason:** NTR 312 will require credit or registration for NTR 112L beginning fall 2017.

## Change common to Options I and III

Add M 408R as a choice of calculus course.

**Reason:** M 408R was developed by the Department of Mathematics for majors in which students need minimal exposure to calculus.

#### Option I, Public Health

Requirement 9c: Remove HS 330

**Reason:** The course contains a restrictive statement that only one of the following count: HS 330, PBH 358D, and SOC 358D. PHB 358D is a required course for this degree.

Requirement 9c: Update restriction statements following 9c.

**Reason:** The addition of a requirement to the 2016-18 catalog changed the numbering but this was not caught in the 2016-18 catalog. This is a correction.

Requirement 9d: Remove BIO 347; change BIO 160L to 260L

**Reason:** BIO 347 instructor retired, and department is unsure when the course will be taught in the future. Department increased credit hours of Immunology lab from one1 to two hours.

Requirement 9f: Remove HED 370K, Topic 2; add HED 360.

**Reason:** The College of Education created a stand-alone course number for HED 370K, Topic 2 (HED 360).

Requirement 9f: Remove PHR 350K

**Reason:** The course was dropped by the College of Pharmacy in fall 2016.

### Option II, Public Health Honors

Change six hours from Fine Arts or Liberal Arts to six hours from Fine Arts and Liberal Arts.

**Reason:** In practice, the Dean's Scholars Program allows students to take six hours from a single college or a mixture of six hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

## Additional Requirements for Option II

Yes \( \sum \) No \( \subseteq \)

Reason: Since the honors options were added at different times as new BS degrees were created, language began to differentiate between degrees. The Dean's Scholars Steering Committee voted to establish standard language for all of its options. 3. THIS PROPOSAL INVOLVES (Please check all that apply) ☐ Flags ☐ Courses in other colleges Courses in proposer's college that are frequently taken by students in other colleges Course in the core Change in course sequencing for Courses that have to be curriculum an existing program added to the inventory Change in admission Requirements not explicit in the requirements (external or catalog language (e.g., lists of internal) acceptable courses maintained by department office) 4. SCOPE OF PROPOSED CHANGE a. Does this proposal impact other colleges/schools? Yes \( \subseteq \text{No } \subseteq \) If yes, then how would you do so? It would appear this answer is yes. However, see the notes below regarding each change. Note: These changes do not seem to require permission from impacted colleges. 1) Removal of HS 330 - duplicates required class PBH 358D. 2) Dropping HED 370K, Topic 2 (Adolescent Health Risk Behavior) and adding HED 360 (Adolescent Health Risk Behavior) is a change in course number, not an addition to the requirements. The College of Education changed the course number effective fall 2016. Removal of PHR 350K - retired from the course inventory effective fall 2016. The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors. There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change. Yes  $\square$  No  $\boxtimes$ b. Do you anticipate a net change in the number of students in your college? 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 Yes \ \ No \ \ taking classes in your college? If yes, please indicate the number of students and/or class seats involved.

Standardize language regarding requirements to graduate with Dean's Scholars degree options.

If 4 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.

d. Do you anticipate a net increase (or decrease) in the number of students from your college taking

How many students do you expect to be impacted?

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

If yes, please indicate the number of students and/or class seats involved.

Person communicated with:

courses in other colleges?

Date of communication:

Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

## If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion?

Note: THECB Semester Credit Hour Change Form required, download from URL:

http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc

If yes, explain:

#### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Program approval date: May 2, 2017 Leanne Field, Program Director
School approval date: June 14, 2017 Deborah Jacobvitz, SoHE Director
College approval date: September 13, 2017 Course & Curriculum Committee
Dean approval date: September 13, 2017 David Vanden Bout, Associate Dean for

Undergraduate Education

#### PROPOSED NEW CATALOG TEXT:

#### BACHELOR OF SCIENCE IN PUBLIC HEALTH

{no change}

### **Prescribed Work Common to All Options**

In the process of fulfilling degree requirements, all students must complete:

- 1. Foundation courses:
  - a. Public health: Public Health 317
  - b. Microbiology: Biology 326M and 226L
  - c. Nutrition and physiology: Nutrition 312 or 312H, 112L, and Biology 365S
  - d. Social and behavioral sciences: One of the following: Economics 304K, 304L, Psychology 301, Sociology 319, 354K
  - e. Political science/government: Government 358 or Management 320F
- 2. Public health core\*:
  - a. Biostatistics: Statistics and Data Sciences 328M
  - b. Environmental health sciences: Public Health 338
  - c. Epidemiology: Public Health 354
  - d. Global health: Public Health 334
  - e. Health policy and health systems: Public Health 358D
  - f. Health behavior theory and practice: Public Health 368D
- 3. Core curriculum
- 4. Skills and experience flags:
  - a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
  - b. Quantitative reasoning: one flagged course
  - c. Global cultures: one flagged course
  - d. Cultural diversity in the United States: one flagged course
  - e. Ethics and leadership: one flagged course
  - f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the *Course Schedule*. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flag from the same course. Students are encouraged to discuss options with their academic advisers.

5. At least [21] twenty-one semester hours of upper-division coursework must be completed in residence at the University. All students must complete at least [36] thirty-six semester hours of upper-division coursework.

#### Additional Prescribed Work for Each Option

#### **Option I: Public Health**

- 6. Mathematics 408C, [or] 408N, or 408R.
- 7. Biology 311C, 311D, and 325 or Biology 315H and 325H. These courses must be completed before the student progresses to other upper-division biology and upper-division public health courses.
- 8. Chemistry 301 or 301H, 302 or 302H, 204, 320M, and Biochemistry 369.
- 9. At least nine hours from one of the following areas of specialization; courses counted toward requirement 1 may not be used to fulfill this requirement.
  - a. Biostatistics and public health informatics: Biology 321G, Computer Science 303E, 313E, 327E, Geography 360G, Mathematics 408D, 408M, 408S, 340L, 358K, 362K, 362M, 378K, Public Health 320, 323, 341R, Statistics and Data Sciences 332.
  - b. Environmental health sciences: Biology 373, 373L, 375, Civil Engineering 341, 342, 346, 369L, Geological Sciences 302C, 346C, 476K, 476M, Geography 307C, 334C, 339K, 344K, 357, 360G, Marine Science 307, 320, 354Q, Public Health 341R, Urban Studies 315.
  - c. Health policy and management: Economics 304K, 304L, Government 357M (Topic 3: Supreme Court and Public Policy; Topic 4: Civil Liberties; Topic 7: Constitutional Structure of Power; Topic 8: Structure of Individual Liberties), 358, 360N (Topic 10: Introduction to International Relations), 370L (Topic 23: Politics of Health Care), Health and Society 320, [330,] Human Development and Family Sciences 362, Management 320F, Philosophy 325L or 325M, 347, Public Affairs 325 (Topic 1: Advanced Seminar in Ethical Leadership), Public Health 341R, Sociology 354K.

Economics 304K and 304L may not count toward both requirement 1d and requirement [8e] 9c. Government 358 may not count toward both requirement 1e and requirement [8e] 9c. Management 320F may not count toward both requirement 1e and requirement [8e] 9c. Sociology 354K may not count toward both requirement 1d and [8e] 9c.

- d. Infectious diseases and public health microbiology: Biology 330, 230L, 336, [347 or] 360K, 260L [160L], 361, 361L, Public Health 341R, 361P.
- e. Nutrition: Nutrition 312R, 315, 321, 331, 337, 338W or 338H, 342, 365 (Topic 1: Vitamins and Minerals; Topic 4: Obesity and Metabolic Health), Public Health 341R.
- f. Social and behavioral sciences: Only one advertising, communication, or public relations course may be counted: Advertising 305, 319, 334, 378, Communication Studies 306M, 315M, 332, 332K, 355K, Health Education 329K, 335, 352K (Topic 2: Psychological Issues in Women's Health), 360, 370K (Topic 1: Foundations of Health Promotion I[; Topic 2: Adolescent Health Risk Behavior]), 371K, 373, Health and Society 301, 320, Marketing 320F, [Pharmacy PharmD 350K,] Public Health 341R, Public Relations 305, Social Work 310, Sociology 319, 322F, 329, 336D, 354K, 369K

Sociology 319 and 354K may not count toward both requirement 1d and requirement 8f.

- 10. One of the following foreign language/culture choices:
  - a. Beginning level proficiency coursework, or the equivalent, in a foreign language
  - b. First course in a foreign language and a three-semester-hour course in the culture of the same language area

- c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers
- 11. Enough additional coursework to make a total of 120 semester hours

#### **Option II: Public Health Honors**

- 6. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; credit by examination may not count toward this requirement
- 7. In fulfilling requirement 2a, students must complete an honors statistics course
- 8. Chemistry 204, 320M, and Biochemistry 369
- 9. A section of Undergraduate Studies 302 or 303 that is approved by the program honors adviser
- 10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 11. Two semesters of Public Health 379H
- 12. Nine additional hours of coursework approved by the departmental honors adviser
- 13. Six semester hours of coursework [in] from the College of Liberal Arts [or] and/or the College of Fine Arts
- 14. Enough additional coursework to make a total of 120 semester hours

#### **Option III: Advanced Program**

This program provides students with a foundation in the natural sciences applied to public health and advanced specialist training in preparation for a leadership position in public health practice. This program leads to the completion of the Bachelor of Science in Public Health and the Master of Public Health, awarded by the School of Public Health at the University of Texas Health Sciences Center at Houston. During the senior year, students complete the first year of the Master of Public Health at the Austin Regional Campus. The second year of the Master of Public Health is completed at one of the five regional campuses in Austin, Brownsville, Dallas, El Paso, Houston, and San Antonio. Upon completion of the first year of the Master of Public Health, coursework may be applied toward Option III requirements. Option III students may apply to graduate upon completion of the undergraduate degree requirements and prior to the completion of the Master of Public Health.

- 6. Mathematics 408C, [or] 408N, or 408R
- 7. Biology 311C, 311D, and 325; or 315H and 325H; these courses must be completed before the student progresses to other upper-division biology and upper-division public health courses
- 8. Chemistry 301 or 301H, 302 or 302H, 204, 320M, and Biochemistry 369
- 9. One of the following foreign language/culture choices:
  - a. Beginning level proficiency coursework, or the equivalent, in a foreign language
  - b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
  - c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
- 10. Enough additional coursework to make a total of 120 semester hours; a maximum of <u>eighteen</u> [18] hours of graduate coursework completed at the School of Public Health at the University of Texas Health Sciences Center may be applied as elective hours toward the Bachelor of Science in Public Health, Option III: Advanced Program, if needed to reach a total of 120 hours.
- \* Graduate coursework may not be applied toward the public health core requirements 2a through 2f.

#### **Special Requirements**

{no change}

## **Additional Requirements for Option II**

To graduate under Option II, students must remain in good academic standing in the Dean's Scholars Program, must earn grades of at least A- in the departmental research and thesis courses described in requirement 11 above, and must present their research in an approved public forum, such as the college's annual Undergraduate

Research Forum. More information about the Undergraduate Research Forum is available at  $\frac{1}{100}$  https://cns.utexas.edu/.

**Additional Requirements for Option III** {no change}

#### DOCUMENTS OF THE GENERAL FACULTY

## PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN PHYSICS IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE UNDERGRADUATE CATALOG 2018-2020

Dean Linda A. Hicke in the College of Natural Sciences has filed with the Secretary of the Faculty Council the following proposal to change the Bachelor of Science in Physics degree program in the College of Natural Sciences chapter in the *Undergraduate Catalog*, 2018-2020. The Dean's Scholars Steering Committee approved the proposal on May 10, 2017; it was approved by UTeach Program Director on September 22, 2017; and by the College Course and Curriculum Committee and Associate Dean David Vanden Bout, on behalf of Dean Hicke, on September 27, 2017. 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 proposal on February 2, 2018, and forwarded it 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 the Provost on behalf of the President.

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 March 15, 2018.

Alan W. Friedman, Secretary of the General Faculty and Faculty Council

The University of Texas at Austin

llan W. Oriekwan

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

Distributed through the Faculty Council Wiki site https://wikis.utexas.edu/display/facultycouncil/Wiki+Home on March 1, 2018.

# PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN PHYSICS IN THE COLLEGE OF NATURAL SCIENCES CHAPTER IN THE *UNDERGRADUATE CATALOG 2018-2020*

Type of Change  ☐ Academic Change ☐ Degree Program Change (THECB form required)					
Pro	posed classification	ve 🛚 General	Major		
1.	<ul> <li>IF THE ANSWER TO ANY OF CONSULT LINDA DICKENS, DETERMINE IF SACSCOC A</li> <li>Is this a new degree program</li> <li>Is this program being deleted</li> <li>Does the program offer cours</li> <li>Will courses in this program</li> </ul>	DIRECTOR OF AC PPROVAL IS REQUE ? ? sees that will be taught	CCREDITATION AN UIRED.  Y  off campus?  Y		
2.	EXPLAIN CHANGE TO DEGI EACH INDIVIDUAL CHANGE		ND GIVE A DETAIL	ED RATIONALE FOR	
	Option V: Teaching Update engineering courses under Reason: Engineering and UTeac College of Natural Sciences.				
	Option VI: Physics Honors Remove M 427K. It was replaced Reason: The Department of Mat				
	Change six hours from Fine Arts of <b>Reason:</b> In practice, the Dean's So a mixture of six hours from both of eliminate the need for petitions.	cholars Program allov	vs students to take six h	nours from a single college or	
	Special Requirements Standardize language regarding re Reason: Since the honors options language began to differentiate be establish standard language for all	were added at different etween degrees. The D	ent times as new BS de	grees were created, standard	
3.	THIS PROPOSAL INVOLVES  ☐ Courses in other colleges	Courses in pr	oposer's college that taken by students in	☐ Flags	
	<ul><li>☐ Course in the core curriculum</li><li>☐ Change in admission requirements (external or internal)</li></ul>	☐ Change in co an existing pr ☐ Requirements catalog langu	ogram s not explicit in the age (e.g., lists of urses maintained by	Courses that have to be added to the inventory	
4.	a. Does this proposal impact other of the second of the se	ner colleges/schools?		Yes 🛭 No 🗌	
	Option V, Teaching				

Very few students seek the mathematics, physical science, and engineering certification. The UTeach Program did not provide an estimate of the number of students who might take E S 301 and M E 377K. However, the additions are approved by UTeach Engineering.

#### Option VI, Physics Honors

The original legislation stated that Dean's Scholars must choose six hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count six hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.

There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps ten seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.

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 o	utside of your college
	taking <u>classes in your college</u> ?	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 y	our college taking
	courses in other colleges?	Yes 🗌 No 🔀
	If yes, please indicate the number of students and/or class seats involved.	

If 4 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? Not provided by UTeach Engineering or UTeach Natural Sciences; minimal number.

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

Person communicated with: David Allen, director Date of communication: September 22, 2017

Response: Suggested proposed changes.

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:

## If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:

Date of communication:

Response:

f. Will this proposal change the number of hours required for degree completion? Note: THECB Semester Credit Hour Change Form required, download from URL: http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc If yes, explain:

### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Dean's Scholars approval date:	May 10, 2017	Dean's Scholars Steering Committee
UTeach Program approval date:	September 22, 2017	David Allen, UTeach Program, director
College approval date:	September 20, 2017	Course and Curriculum Committee
	September 27, 2017	
Dean approval date:	September 27, 2017	David Vanden Bout, Associate Dean for
		Undergraduate Education

#### PROPOSED NEW CATALOG TEXT:

#### BACHELOR OF SCIENCE IN PHYSICS

{no change}

### **Prescribed Work Common to All Options**

{no change}

### **Prescribed Work Common to All Options for Each**

## **Option I: Physics**

{no change}

#### **Option II: Computation**

{no change}

### **Option III: Radiation Physics**

{no change}

### **Option IV: Space Sciences**

{no change}

#### **Option V: Teaching**

This Option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses composite science certification with physics as the primary teaching field, physical sciences certification, physics/mathematics certification, or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional requirements, students should consult the UTeach-Natural Sciences academic adviser.

- 6. Physics 301, 101L, 316, 116L, 315, and 115L
- 7. Mathematics 408C and 408D or the equivalent, 427J or 427K, and 427L
- 8. At least eighteen [18] semester hours of upper-division coursework in physics, consisting of Physics 341 (Topic 7: *Research Methods: UTeach*), 353L, 355, and three of the following courses: Physics 329, 333, 336K, 338K, 352K, 373, Science 365; with the consent of the UTeach-Natural Sciences undergraduate adviser, an upper-division physics course that includes a substantial research component may be substituted for Physics 341
- 9. History 329U or Philosophy 329U
- 10. The requirements of one of the following certification areas:
  - a. For composite science certification:
    - i. Biology 311C and 311D
    - ii. Chemistry 301 or 301H and 302 or 302H
    - iii. Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement
    - iv. Enough additional approved coursework in biology, chemistry, or geological sciences to provide the required 12 hours in a second field
  - b. For physical sciences certification:
    - Chemistry 301 or 301H, 302 or 302H, 204 or 317, 353, 153K, 154K, 354L, and 455 or 456
    - ii. Three additional hours of upper-division coursework in physics
  - c. For physics/mathematics certification: Mathematics 315C, 325K, 333L, 341 or 340L, 358K, 362K, 360M or 375D
  - d. For mathematics, physical science, and engineering certification:
    - i. Mathematics 315C, 325K, 333L, 358K, and 362K
    - ii. Chemistry 301 or 301H, 302 or 302H, and 204

- iii. [Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems) | Engineering Studies 301; and Mechanical Engineering 377K upon approval of the project by the UTeach Program.
- 11. Eighteen semester hours of professional development coursework consisting of:
  - a. Curriculum and Instruction 651S
  - b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
  - c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
  - d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
  - e. UTeach-Natural Sciences 101, 110, and 170
- 12. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: *Adolescent Development*), or Psychology 301 and 304; and Curriculum and Instruction 339E
- 13. Enough additional coursework to make a total of at least 126 semester hours

## **Option VI: Physics Honors**

- 6. Breadth requirement: Biology 315H and 325H, Chemistry 301H and 302H, and Mathematics 427J [or 427K] and 427L; at least one of the math courses must be a designated honors section; credit earned by examination may not be counted toward this requirement
- 7. Mathematics 340L and 361
- 8. Physics 301, 101L, 316, 116L, 315, and 115L
- 9. Physics 336K, 352K, 353L, 355, 362K, 362L, 369, 373, and 474
- 10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
- 11. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
- 12. Physics 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser
- 13. Ten additional semester hours of coursework approved by the departmental honors adviser
- 14. Six semester hours of coursework [in] from the College of Liberal Arts [or] and/or the College of Fine Arts
- 15. Enough additional coursework to make a total of 120 semester hours

## **Option VII: Biophysics**

{no change}

## **Special Requirements**

Students in all options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C*- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate and be recommended for certification, students who follow the Teaching Option must have a University grade point average of at least 2.50. They must earn a grade of at least C- in the supporting course in requirement 9 and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least C- in each of the courses listed in requirement 12. Information about the portfolio review and additional teacher certification requirements is available from the UTeach-Natural Sciences academic adviser.

To graduate under Option VI, students must remain in good standing in the Dean's Scholars Honors Program, must <u>submit an honors thesis approved by the departmental honors adviser, [earn grades of at least *A*- in the departmental research and thesis courses described in requirement 8 above;] and [must] present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. <u>More information</u> about the Undergraduate Research Forum is available at https://cns.utexas.edu.</u>