## 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. Drielwan
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.

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

Type of Change $\quad \boxtimes$ Academic Change $\square$ Degree Program Change (THECB form required)

Proposed classification $\quad \square$ Exclusive $\quad$ General $\quad \square$ Major

## 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.

- Is this a new degree program?

Yes $\square$ No $\boxtimes$

- Is this program being deleted?
- Does the program offer courses that will be taught off campus? Yes $\square$ No $\boxtimes$
- Will courses in this program be delivered electronically?

Yes $\square$ No $\boxtimes$

## 2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE: <br> Option 1, Astronomy

Requirement 9: Alter wording of requirement to make it clearer that AST $352 \mathrm{~K}, 353$, and 358 are required. Remove AST 351 as a recommended class. Add AST 364P (Planetary Systems), 376C (Cosmology), and 376R (Practical Introduction to Research Methods), as recommendations for the $4^{\text {th }}$ course selected to fulfill the requirement.
Reason: AST 351 will be offered more infrequently in the next few years. Planetary Systems provides a rigorous introduction to one of the most exciting, core subjects of $21^{\text {st }}$ century astronomy research. The Department of Astronomy wants to encourage astronomy majors to be exposed to the science of planetary systems.

## Option II, Astronomy Honors

Change six hours from Fine Arts or Liberal Arts to 6 hours from Fine Arts and Liberal Arts.
Reason: In practice, the Dean's Scholars Program allows students to take 6 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)
$\boxtimes$ Courses in other collegesCourse in the core curriculumChange in admission requirements (external or internal)Courses in proposer's college that are frequently taken by students in other colleges
$\boxtimes$ Change in course sequencing for an existing programRequirements 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 $\boxtimes$ No If yes, then how would you do so?
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.

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? $\quad$ Yes $\square$ No $\boxtimes$ 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? $\quad$ Yes $\square$ No $\boxtimes$ 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 $\square$ No $\boxtimes$
If yes, please indicate the number of students and/or class seats involved.
If $4 \mathrm{a}, \mathrm{b}, \mathrm{c}$, 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 nonnegligible 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 (42hour 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: November 5, 2015;
February 10, 2017
Department approval date: May 10,2017
College approval date:
Dean approval date:

September 6, 2017
September 202017
September 20, 2017

Astronomy Executive Undergraduate Studies Committee
Dean's Scholars Steering Committee Course and Curriculum Committee

David Vanden Bout, Associate Dean for Undergraduate Education

## 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 301 H 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 $427 \mathrm{~K}, 427 \mathrm{~L}$, and 340 L
8. Physics $301,101 \mathrm{~L}, 315,115 \mathrm{~L}, 316,116 \mathrm{~L}, 336 \mathrm{~K}, 352 \mathrm{~K}, 353 \mathrm{~L}, 355,362 \mathrm{~K}, 369$, and 373
9. [ 12 semester hours of upper division coursework in astrenemy, ineluding] Astronomy $352 \mathrm{~K}, 353$, [and] 358 , and three additional hours of upper-division Astronomy. Astronomy [354] 364P, 376C, or 376 R 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 301 H , 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 $301,101 \mathrm{~L}, 315,115 \mathrm{~L}, 316$, and 116 L
8. 12 semester hours of upper-division coursework in astronomy approved by the departmental honors adviser
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 379 H 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 [өr] 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 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 12 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.

