Astrophysics Program Changes (Major and Minor Programs) (Spring 2026)

We propose the following changes to the Astrophysics Program to increase flexibility of the degree and bring requirements in line with comparable programs.

1) **Remove CS 105 (2 credits) and Chem 125 (4 credits) as requirements for the major.**
   CS 105 is no longer required as part of the core as Phys 240 now meets the computer science core requirement. Chem 125 is also not needed to meet core requirements and the content is not needed as a prerequisite for other courses in the program. This frees up 6 credits, which we propose to use to require a 100-level astrophysics course and add 3 additional free electives to the program.

2) **Add Phys 150 as a major requirement (3 credits).**
   "Phys 150: Introductory Special Topics in Astrophysics (*3 credits*)" is already on the books. The topic and title will change depending on who is teaching it. For Goni "Phys 150: Black Holes" and for Emily "Phys 150: Life on Other Planets." This course would be required for our freshman majors, but have no prerequisites and be open as a general education course as well. Intended as a recruitment and retention course, as we currently have no classes below the 300-level for our majors. There is also unmet demand for more gen ed astronomy courses, which will allow us to teach this with a larger class size.
   **Note that we currently offer "Phys 120: Astronomy" every fall, which is NOT an appropriate course for majors. However, it is a highly successful class with enrollments exceeding the 40 person capacity every semester, indicating there is unmet demand for more 100-level gen ed astro courses. We can teach 120 in fall and 150 in spring, or vice versa, depending on teaching capacity.*

3) **Raise free elective credits from 12 to 15**
   Needed to maintain 120 credit hour minimum for degree if we eliminate CS 105 and Chem 124 (but add Phys 150). This will provide increased flexibility for students to pursue co-terms, dual degrees, and/or take more physics electives.

4) **Update major requirements to require 3 of 4 of the 400-level astrophysics offerings.**
   Students select 3 of the following 4 classes:
   Phys 403: Relativity
   Phys 425: High Energy Astrophysics
   Phys 460: Stellar Astrophysics
   Phys 461: Extragalactic Astrophysics

5) **Remove Phys 427 as a requirement for the major and replace with 3 credits of physics electives (any Phys 300+ level course)**

An upper level lab of any kind is only required for 35% of astrophysics BS, and we already require a lab course (Phys 361) which is more topical. This puts us more in line with comparable programs and increases degree flexibility.

6) Update astrophysics minor to allow Phys 425 to count for the minor