

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College CENS 2. Academic Unit Physics and Astronomy

3. Academic Plan Name Physics 4. Subplan (if applicable)? _____

5. Effective Date FALL 2006

6. Is this proposal for a : New Plan Plan Change Plan Deletion
 New Subplan Subplan Change Subplan Deletion

7. **For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the current on line academic catalog:** (<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>)
Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

Major Requirements

Complete the following 47 units:

- * PHY 161, 161L, 262, 262L, 263, 264, 265, 321, 331, 332, 361, 401, and 471 (35 units)
- * PHY 333W, which meets NAU's junior writing requirement (3 units)
- * for NAU's senior capstone requirement (3 units):
 - * 3 units of PHY 498C
 - * or 1 unit of PHY 498C plus 2 units of PHY 485C
 - * 6 additional units of upper-division physics and astronomy courses

Show the proposed changes in this column. Please **BOLD** the changes, to differentiate from what is not changing. (*Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.*)

Major Requirements

Complete the following 47 units:

- * PHY 161, 161L, 262, 262L, 263, 264, 265, **301**, 321, 331, 332, 361, 401, **441** and 471 (**38** units)
- * PHY 333W, which meets NAU's junior writing requirement (3 units)
- * for NAU's senior Capstone requirement (3 units):
 - 3 units of PHY 498C, or 1 unit of PHY 498C plus 2 units of PHY 485C**
 - * **6 3** additional units of upper-division physics and astronomy courses

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes
*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:
- a. verify satisfactory completion of a non course requirement.
 - b. indicate admission to a major.
 - c. will not be used.

**A Milestone is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

The Learning Outcomes of this plan are unchanged by this curricular adjustment and the department will continue to use the current assessment plan.

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes. **Two changes are being made: (1) replacing the PHY 401 requirement with PHY 301 (same class but is being renumbered) and (2) adding PHY 441 Thermal Physics (statistical mechanics) to the core requirements, in place of a 3-hour elective. (PHY/AST elective requirement is reduced from 6 to 3 hours.) PHY 401 is being renumbered to PHY 301 so that students will take it in their junior year instead. The course gives students mathematical preparation for several of the upper-division PHY/AST courses. The PHY 441 Thermal Physics course is being added to modernize our curriculum. PHY 441 has been an elective offered bi-annually but the department has felt for sometime that it should become a requirement. A statistical mechanics/thermal physics course is a standard requirement in physics majors across the country. Adding this course does not extend the number of hours of the major or the number of hours in the core.**

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU?

If so, attach supporting documentation from the affected departments/units and college dean.

14. Will present library holdings support this academic plan/subplan?

Certifications

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

Date

Dean of college

Date

For committee use only

For University Curriculum Committee

Date

Action taken: _____ approved as submitted _____ approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.