Contact: Rachel Boon

REQUEST TO TERMINATE GRADUATE DEGREES IN APPLIED PHYSICS AT IOWA STATE UNIVERSITY

Committee Action Requested: Recommend to the Board approval of the request to terminate the Master of Science and Doctor of Philosophy in Applied Physics in the College of Liberal Arts and Sciences at Iowa State University.

The Council of Provosts and Board office staff reviewed the proposal and recommend approval.

Description of the program: The graduate program in physics offers a vibrant and collaborative environment where students engage in cutting-edge research and rigorous academic training across diverse fields of physics. Led by renowned faculty members who are leaders in their respective fields, ISU's program covers a wide range of disciplines, from fundamental theory to applied physics. Students are accepted directly into the PhD program; the MS is awarded only to students who have completed specific requirements and are not continuing to work toward the PhD.

Reason for proposed termination: In addition to the existing PhD in Physics, the department has specialized graduate programs in astrophysics (ASTRO), condensed matter physics (CMP), high energy physics (HEP), applied physics (APP) and nuclear physics (NUCP). These are all areas of specialization in the field of physics. Overall, the physics graduate programs show a total enrollment of 77 students.

Historically, the specialty programs were always aligned through a strong core curriculum, but in the early days of the department, there were fewer research areas and those were considered more distinct. While all students entered ISU in the Physics PhD program, after their first few semesters they would move into the PhD program of their specialization.

Over time, interdisciplinary connections between the research areas have become more pronounced, making now a good time to also express this by having all students enrolled in the single degree option, the PhD in Physics.

Effect on current students: Current students enrolled in these programs will be able to complete their degree with the current name of their specialization on their diploma. As new students enroll in the program, they will remain in the Physics PhD. Students will still be able to pursue one of the areas of specialization but will receive a diploma with a PhD in Physics. Their transcripts and thesis topic would still refer to their specialized research area in physics.

Enrollment and Completion Trends:

	2021-22	2022-23	2023-24	2024-25	2025-26
Majors	1	1	0	1	2
Graduates	0	1	0	0	0

Impact on resources: This change is not expected to affect enrollments since the various research areas would continue to be offered to ISU's students. The merging of these programs effectively streamlines the administrative burden of the multiple degrees into one. There is no anticipated effect on cost or resource allocations as the department will continue to offer the core curriculum and the specialty classes required.

Impact on workforce: Since these programs are merging into one, no changes for the scientific or technical workforce needs of the State of Iowa are expected.

Alternative programs: While the Department of Physics and Astronomy at Iowa State University is the highest ranked physics PhD program (55, US News and World Report: top 29%) in the State of Iowa, the University of Iowa also offers a PhD in Physics with current enrollment of 69 (67 US News and World Report: top 35%).

Date of Implementation: Upon approval of the Board.