

# Consolidation of the Department of Chemistry, Physics & Astronomy and the Department of Mathematics

Submitted to Provost Holley Roberts

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## I. Executive Summary

This proposal recommends the consolidation of the Department of Mathematics and the Department of Chemistry, Physics & Astronomy into a unified Department of Chemistry, Physics & Mathematics as a strategically sound and academically justified response to persistent enrollment and retention challenges facing both units. The merger is designed to preserve the integrity and identity of each discipline while creating new opportunities for interdisciplinary programming, administrative efficiency, and long-term institutional sustainability.

## II. Significance: Institutional Mission and Elimination of Redundancy

The proposed consolidation directly advances the institution's mission by ensuring the continued viability of foundational scientific and mathematical disciplines that are essential to a well-rounded liberal arts and sciences education. Mathematics and physics are not peripheral offerings — they are core contributors to quantitative literacy, scientific reasoning, and preparation for graduate and professional study across a wide range of fields. Preserving and strengthening these programs is an institutional imperative.

Operating two fully independent departmental structures under current enrollment conditions has produced avoidable redundancy. Both departments maintain separate administrative infrastructures and faculty governance responsibilities while graduating a three-year average of just four students per program. These parallel structures do not serve students or the institution well when the intellectual proximity of mathematics, chemistry and physics — disciplines with a centuries-long history of co-development, from calculus to quantum mechanics to general relativity — makes a unified home not only feasible but natural.

The proposed merger would create a coherent, unified structure where none currently exists, while preserving distinct disciplinary identities through sub-divisional organization — a Chemistry division, a Physics division and a Mathematics division— each maintaining its own hiring, tenure, and curriculum standards. Existing degree programs and their concentrations (including Biochemistry, Forensics, and Industrial Chemistry; Medical Physics; and Mathematics Education) would be fully retained.

### III. Excellence: Academic Quality & Coherence

The case for this merger rests substantially on academic grounds. The intellectual relationship between mathematics and physics is among the most generative in all of scholarship.

A unified department would formalize and facilitate what is already an organic intellectual relationship, creating conditions for stronger mentorship, more coherent curricular advising, and richer faculty exchange with respect to collaborative scholarship and grantsmanship. It would also provide an environment for curricular innovation and excellence.

Academic quality within the merged unit would be safeguarded through the preservation of discipline-specific standards for hiring and tenure review and the retention of all existing degree disciplines. The aim is not to homogenize distinct academic cultures but to remove structural barriers that currently limit what faculty and students can accomplish together. The National Science Foundation and other major agencies increasingly prioritize interdisciplinary proposals. A unified department spanning the mathematical and physical sciences (chemistry and physics) would strengthen faculty members' ability to pursue such grants, directly enhancing their research profile and academic reputation. All of this would support student success.

#### Governance

Tenure and promotion policies can remain distinct as they already exist in the Mathematics, Chemistry and Physics programs. The addition of the following suggested preamble to a combined T&P document would ensure clarity for faculty:

##### *Preamble*

*The criteria, timelines, and procedural requirements governing tenure and promotion in the Department of Chemistry, Physics, & Mathematics are defined at the program level and reflect the distinct academic missions and disciplinary standards of each program. Faculty members are therefore required to consult with the program-specific policies set forth in this document, as those provisions constitute the authoritative and binding guidelines for their respective reviews.*

Similarly, current processes for scholarships and awards can be addressed. Where applicable, the department will defer to program-specific guidance on the selection criteria, eligibility requirements, and nomination processes governing student awards, scholarships, and faculty awards.

Senate Representation will be determined by the Corps of Instruction size as defined by Senate rules. The new department will have a Corps of Instruction of 31.

Representation on college and university-wide committees will be reduced, freeing up valuable time for faculty - an important resource benefit given the governance burdens associated with small departments. Where applicable, there will be

a single departmental representative on college and university committees, such as C&I, UCC, Dean’s Advisory Council, College Scholarship Committee, College T&P Committee, etc.

**Leadership**

The current leadership structure in the two departments is:

- Chemistry, Physics & Astronomy: interim department chair, 2 program coordinators.
- Mathematics: interim department chair, 0 program coordinators.

In addition to the appointment of an interim Department Chair (pending a fall 2026 search for a permanent appointment), we recommend the appointment of an Assistant Chair, preferably from a different program than the interim Department Chair.

The Assistant Chair shall assist the Chair in class scheduling, and staffing and recruitment of faculty as necessary. Additionally, they could assist in staff performance evaluations or program assessment and curricular affairs.

Program coordinators will be appointed by the chair, in consultation with the dean.

**Suggested Organizational Structure:**

- Department Chair: TBD
- Assistant Chair: TBD
- Office Clerical Lead: Whitney Herman
- Administrative Assistant I: Megan Sherrer
- Program Coordinators: TBD
- Laboratory Professional: Vladislav Manoylov
- Laboratory Paraprofessional: Cason Kelley
- Faculty: Chemistry, Physics, Mathematics

**IV. Student Service: Meeting Student Demand**

Low graduation rates and poor retention are also drivers of this proposal, and they are fundamentally student welfare issues. In the latest USG report, the Physics and Mathematics programs have fallen below the three-year rolling average threshold for enrollment/awards for the last two review cycles (that is, both 2022 – 2024 and 2023 – 2025). The average threshold is at least ten students enrolled/graduated for bachelor’s degrees.

<i>DEGREE NAME FALL 2025 ENROLLMENT</i>	<i>FY25 AWARDS</i>	<i>3-YR AVG ENROLLMENT</i>	<i>3-YR AVG AWARDS</i>
<i>BS MATHEMATICS</i> 26	1	25	4
<i>BS PHYSICS</i> 66	1	59	4

The three-year average of four graduating seniors per program reflects not a lack of student interest in these disciplines but a structural challenge in offering the interdisciplinary pathways that today's students seek. Students drawn to both mathematics and physics currently find no clear institutional path connecting those interests, such as those interested in both chemistry and physics.

A merged department directly addresses this problem. A well-designed curriculum or joint curriculum would give students who are drawn to quantitative and physical reasoning a compelling reason to stay and give prospective students a reason to choose the institution in the first place. This is both an academic improvement and a concrete enrollment strategy.

The consolidation offers immediate benefits to students in existing programs. A single department can ensure that course offerings in mathematics and the physical sciences are scheduled without conflicts and structured to provide complementary pathways to degree completion. This coordination would benefit students pursuing the BS in Chemistry, the BS in Mathematics, and the BS in Physics, all of whom currently depend on cross-departmental course availability that is harder to manage across separate administrative units.

#### **V. Cost: Efficiency and Funding Structure**

The proposed consolidation is designed to be cost-neutral, and in several respects could be cost-reducing. No faculty lines would be eliminated, no academic programming discontinued, and no laboratory or computer lab relocated. The operational changes are structural and administrative.

All existing open vacancies due to retirements and/or resignations should be requested per normal procedures. All current vacancies will continue to be searched in fall 2026:

- Department Chair for restructured department
- Approved new Assistant Professor position in Chemistry
- Approved new Lecturer position in Mathematics

The cost implications are as follows.

- The Department Chair position is currently vacant but fully funded — no new expenditure is required to fill it under the merged structure.
- The proposed Assistant Chair position would be staffed by a current faculty member through reassigned time and a stipend, funded by the College of Arts & Sciences, and would not require a new hire.
- Both existing administrative assistants would be retained, at no additional cost.
- Both technical staff will be retained at no additional cost.

- Since laboratories and computing facilities would remain in their current locations, this requires no capital expenditure.
- A combined budget managed under a single departmental structure, allowing more flexible and need-based resource distribution and eliminating the inefficiencies that arise from parallel administrative operations.

In the longer term, the merger strengthens the institution's financial position by creating the programmatic conditions — combined degree offerings, stronger research grant competitiveness, improved student retention — that support sustainable enrollment and external revenue.

The consolidation is therefore not a cost-cutting measure but a strategic investment in the long-term health of the mathematical and physical sciences at the institution.

## VI. Timeline

March 16<sup>th</sup>, 2026: Form Working Group

April 17<sup>th</sup>, 2026: Submit final report to Provost

Upon Cabinet approval, inform the departments before classes end for the semester.

Initiate restructuring for July 1<sup>st</sup>, 2026, implementation, if approved by Cabinet.

Respectfully submitted,

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