

Charge to the Ad Hoc Committee on the Formation of the School of Mathematics and Science Foundations

I. Purpose

This *Ad Hoc* Committee is convened to help design and establish the School of Mathematics and Science Foundations (SMSF) within the College of Science at UNT. SMSF is being created to serve as the home for introductory-level courses that provide the necessary mathematics and science foundations for STEM majors, as well as for core courses that serve all students at UNT. It is broadly envisioned to work collaboratively with college departments to develop dynamic and impactful curricula, provide professional development to support faculty and graduate student growth as impactful educators, provide advising and career guidance the outset students' academic journeys, and work with the extensive network of STEM education researchers at UNT to serve as a learning laboratory. The proposal for the creation of this school and the broad parameters that will define it are included as the last page of this charge.

II. Scope of Work

The committee's responsibilities include, but are not limited to:

1. Mission and Vision
 - Articulate the mission, vision, and strategic goals of the proposed school, ensuring alignment with the broader mission and strategic priorities of UNT and the College of Science.
2. Conduct a National Search for an Associate Dean to lead SMSF
 - It is expected that while this committee will oversee the search, members of the actual search committee should be a subset of this large group and may include faculty, staff, students outside of the committee.
3. Draft of SMSF Handbook
 - *Academic Scope*
Recommend the courses to be housed within the school.
 - *Governance*
Propose a within-school governance structure (e.g., membership in the school, voting rights, composition of PAC) consistent with university policies and effective academic leadership practices and describe governance structures that will be effective in coordinating with the five COS departments.
 - *Faculty, Staffing, and Coordination*
Identify faculty needs, criteria for appointments, hiring practices for professional faculty and adjuncts, teaching assignment processes for TFs and TAs, and delineate policies for affiliated faculty – i.e., those whose primary appointment is in one of the COS departments. Define policies for coordination with COS departments on equitable distribution of faculty teaching loads and graduate student TA/TF lines. Define expectations for coordination for faculty teaching sections of the same course and identify opportunities for coordination across related courses in different disciplines.
4. Implementation Timeline
 - Outline a phased plan for establishment, including key milestones and decision points.
5. Stakeholder Engagement
 - Solicit and incorporate feedback from faculty, students, alumni, and external stakeholders as appropriate.

III. Membership

The committee shall consist of the 15 members, appointed by the Provost, to include tenure-line and professional faculty from all COS departments, and include expertise on education research, advising, and the colleges whose curricula rely on mathematics and science foundations (e.g., the Colleges of Engineering and Business).

Ex officio members (non-voting):

- Ed Dzialowski, Dean of the College of Arts and Sciences
- Michael Monticino, Co-director of the Curriculum Connector, LEEF
- Heidi Elmendorf, on behalf of the Provost, Deputy to the President for University Initiatives

Administrative support will be provided by both LEEF and the College of Science as appropriate for different aspects of the committee's work.

IV. Timeline

The committee will begin its work by mid-November 2025 and submit its final report by the end of May, 2026. Interim updates will be provided to Dean Dzialowski and Provost McPherson on a bi-monthly basis.

V. Deliverables

1. A statement articulating the mission, vision, and strategic goals of SMSF. Due by end of December 2025.
2. A successful national search for a new Associate Dean to lead the school. (November 2025-March 2026)
3. Hosting a series of seminars that can provide all members of COS insights into the national conversation on the critical topic of improving student success in introductory STEM curricula. (January 2026-April 2026)
4. Draft of Handbook Policies for SMSF that will include, but not be limited to: the parameters for coordinating with COS departments re curriculum, faculty teaching lines, and the designation of TAs/TFs; internal governance and administrative functions; the appointment and evaluation of faculty; the function and composition of committees; professional development expectations; etc. Due by end of April 2025.
5. Proposals for additional in-depth needed design work and designation of working committees for this work (e.g., creation of a DBER strategy, design of professional development, preliminary course analysis). Due by end of April 2025.
6. Supporting documents (e.g., organizational chart, proposed courses for inclusion). Due by end of April 2025.

VI. Authority

This committee is advisory to the Dean, Provost, and President, who will determine subsequent actions and approvals following review of the committee's recommendations.

Proposal for the creation of a new “School of Mathematics & Science Foundations” Executive Summary

We bring forward this proposal to create a School of Mathematics & Science Foundations (SMSF) with the belief that it can address the range of challenges and improve the experience of both faculty and students in the College of Science. This is intentionally a rough draft, in the belief that the details of the creation of the school should reside with the dean, chairs, and a designated faculty working group.

The challenges for faculty in COS are significant:

- They carry a significant service teaching load, and many students in science and mathematics courses at UNT are underprepared for college-level study.
- DFWI rates in COS service and introductory-level courses are quite high (often $\geq 30\%$), and there is wide variation across sections of the same course. This has real implications not just for COS but also for student success overall at UNT.
- At the same time, the departments have high and increasing expectations for research productivity and graduate education.

The new School of Mathematics & Science Foundations (SMSF) would help COS simultaneously tackle these challenges by better organizing responsibilities for the full breadth of the COS mission.

- SMSF will be responsible for the coordination and delivery of “service” classes – i.e., core and introductory-level courses.
 - Course design and approval will be a shared responsibility between the department (and the department prefix will apply to the course) and SMSF.
- All faculty will be eligible to teach within SMSF, but the primary “home” for faculty will vary based on their teaching responsibilities.
 - Tenure-line faculty will retain departmental appointments; professional faculty will be in either SMSF or a department as appropriate. SMSF will hire adjuncts.
- SMSF will operate as a “learning laboratory” for disciplinary-based innovation and research on STEM education, creating an environment that supports creativity in course design and pedagogy while balancing this with more professional development and better coordination – both among sections of a course and across different courses.
 - The many DBR STEM researchers at UNT will be central to understanding the impact of innovations and translating these into future practices.

There are important structural and budgetary implications for creating a new school.

- Additional funds will be provided by the Provost/President to afford the extra costs incurred in the creation of SMSF. This includes, but is not limited to, the hiring of a new associate dean and staff to coordinate activities between the departments and school.
- Any additional long-term costs would be expected to be covered by increased revenue resulting from greater academic success and retention of students in COS.
- Allocation of budgetary resources among SMSF and the science departments will remain at the discretion of the dean.