Multi-College Department of Design and Technology

Summary and Background

- We propose to create a multi-college academic Department of Design and Technology (Design Tech) with the ambition to be recognized nationally and internationally as the leader in this emerging area. The new department of Design & Technology (Design Tech) will bridge and enhance the design and technology disciplines, domains, and departments at Cornell University across AAP, CHE, Bowers CIS, ENG, A&S, and Cornell Tech with a concentrated focus on the intersections between design and technology across disciplines to enhance, advance, and expand design technology education, research, and practice.
- Design Tech will complement existing departments in the design arts, design science, design engineering, and design professions at Cornell University in AAP, CHE, Bowers CIS, ENG, A&S and Cornell Tech by recruiting faculty working at the interface between existing disciplines. In collaboration with the Deans of CHE, Bowers CIS, ENG, A&S and Cornell Tech, this transdisciplinary department will be administered by the College of Architecture, Art, and Planning.
- The primary degree program will be a Master of Science in Design Technology. The new Design Tech department will partner with Cornell Tech to deliver the M.S. in Design Technology that will straddle Ithaca and NYC.
- A collaborative, connected, and concentrated unit with a focus on design and emerging technologies, the multi-college department will be composed of a multi-disciplinary faculty in design, science, and engineering, who will co-teach transdisciplinary design courses, studios, and seminars, and engage in collaborative research and workshops by sharing resources and moving beyond existing barriers.
- A steering committee of faculty, drawn from the Design Tech Task Force with approval from the Deans, will work together to launch the new department. They will form the radical collaboration hiring committee at the initial stage. Others may be added to a hiring committee from the participating colleges if determined beneficial to do so. This committee will work closely with the Deans throughout the formation process.
- The department will hire dedicated core faculty through the recently launched Radical Collaboration Initiative. They will identify key teaching/research areas and implement radical collaboration hires and new searches to develop a unique transdisciplinary model for design education and design research in design & technology. Faculty in the department will include:

  - Newly recruited faculty through The Design Tech Radical Collaboration
    - 3-4 in AAP @ 50-100% in Design Tech (likely at 100% Design Tech)
    - 1-2 CHE @ 50%-100% in Design Tech (likely 50/50 split)
    - 1-2 Bowers CIS @ 50%-100% in Design Tech (likely 50/50 split)
    - 1-2 ENG @ 50%-100% in Design Tech dept
    - 1-2 TECH @ 50%-100% in Design Tech dept

    The tenure home for new hires will be evaluated collaboratively by the relevant colleges on a case-by-case basis, with the ultimate goal of creating an interactive group of faculty fully committed to design and technology, including a commitment to teaching and research in this area[1]

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[1] The Deans will collaborate with the Deputy Provost to develop a system for tenure decisions for jointly hired faculty.

- Current faculty: A small number of current Cornell faculty may be invited to have a dual or joint appointment or 0% appointments in the new department. However, their tenure home will remain in their current department
- Affiliated Faculty: Faculty across AAP, CHE, ENG, Bowers CIS, A&S, and Cornell Tech, may engage with the Design Tech department through a future graduate field of Design & Technology, while maintaining their existing department homes
- Design Tech Fellows (visiting appointments) will contribute to the teaching, research, and engagement of the department
- The department will be synergistic with and complement existing departments. It will support existing and new opportunities around design and emerging technologies with design-focused departments as well as computing, science, and engineering, to expand design and technology education and innovation across domains.
- The new multi-college department of Design Tech is an outcome of over two years of conversations between the Deans of AAP, Human Ecology, Engineering, Bowers CIS, and Cornell Tech on how best to strengthen and expand design education and research in emerging technologies at Cornell. This has been complemented by a parallel conversation and over a year and a half of collaborative work developed by a multi-disciplinary and multi-college faculty task force to develop and lay groundwork for joint initiatives for Design Tech at Cornell.

Value Proposition & the Needs this Department will fill

- Cornell has a foundation and breath of creative imagination, design excellence, and technology development.
- The department builds on Cornell's strengths in the design arts, design practice, design theory, and ethics and methods towards actualizing digital tools, products, materials, visualizations, and environments, as pertains to Design Tech.
- Providing a space to bridge these elements, Design and Technology at Cornell is poised for significant benefits as the university re-envisions its position to maximize Cornell's impacts on design technology education, research, industry, practice, and policy. The new multi-college Department of Design Tech will enhance the collaborative university-wide network for the advancement of the design arts, design research, technological innovation, scholarship, and collaboration across disciplinary boundaries at Cornell.

New Opportunities for Research and Education

- The multi-college department of Design Tech will bring together the field's contributing disciplines and methodologies; coalesce partners across design and technology in academia and industry; and capitalize on Cornell's distinct strengths in professional education, design, hands on learning and impact-focused design research. The department will be a space for timely education + design technology research and will spearhead rigorous multi-directional and multi-disciplinary teaching and investigations that can help shape the future trajectories of applied design and research in this area.
- The new department will catalyze multi-disciplinary expertise in several collective emerging technology areas, including design + interaction; design + materials; design + media, and design + environments. This synergistic and cross-disciplinary approach, alongside the departments of Human Centered Design, Computer Science and Information Science, and more broadly applied arts, science, and engineering will pioneer new modes, methods, and applications, and redefine existing practices in the advancement of experimental design and technology.

Degree Programs

- The Department will be the academic unit responsible for administration of the M.S. in Design Technology in collaboration with Cornell Tech
- The M.S. in Design Technology will promote a culture of multi-disciplinary and multi-college teaching and training across departments and colleges in Ithaca and NYC, including co-mentoring students in project-based design learning to expand offerings in emerging technology areas critical to enhance the University's impact on this growing field.

- The M.S. in Design Technology builds on the existing M.S. in Matter Design Computation (MS MDC) and the learnings from a 4-year pilot collaboration with Cornell Tech to educate broad and innovative leaders with hybrid creative skills in design and technology
- Any future additional degree offerings will be developed in conversation with and input by the colleges involved in the multi-college initiative. New degree programs will complement existing programs to expand, enhance, or fill in gaps in current offerings and avoid direct duplication.
    - New degrees may be proposed (as per above)
    - A PhD in Design Technology between departments may be proposed pending funding
    - The department may also have undergraduate offerings in the form of new courses. New course opportunities will avoid or limit duplication of existing course offerings in other departments.
    - Undergraduate collaborations such as minors can happen between departments

Impacts

- The development of the new Department in Design and Technology will not only facilitate bridging fields and faculty already at Cornell in design, engineering, biology, computer science, medicine, arts & sciences, and the built environment, but will also fill gaps that are in demand in areas concerning design technology across the university in product design, interaction design, and digital media design. This work will offer an effective tool to recruit and train the most outstanding domestic and international students in a highly integrated research and educational environment.
- This synergistic approach will pose, develop, and answer questions in applied design and technology that will define new models for transdisciplinary design, thought, and content. The Department of Design and Technology is envisioned to create a more robust and structural link between applied design + education and design + research. The benefits of developing a distinct multi-college Design Tech department will put faculty in a unique position to continue to successfully compete for NSF, DOE, and/or NIH program grants [with percentage of overhead going to the respective College(s)] that will contribute to institutional recognition, domestically and internationally, and create a catalytic context for pedagogy in design and research in the world in this area.
- The multi-college department will enhance Cornell University's reputation as a leader in design and a leader in technology innovation.

Governance and Leadership for the new multi-college Department of Design and Technology

- The new multi-college department will have a Lead Dean (AAP), plus an Advisory Deans group from CHE, Bowers CIS, ENG A&S, and Tech. Lead dean meets once per semester with participating deans for updates, strategic goals, and search discussions
- A Department Chair will serve as the administrative and academic leader of the Department.
- The Department will be the academic unit responsible for administration of the degree programs:
    - The primary degree will be the Master of Science in Design Technology (in collaboration with Cornell Tech)
    - New degrees may be proposed at a future date.
        - A PhD in Design Technology between departments will be proposed pending funding
        - Undergraduate collaborations such as minors can happen between departments