

Lessons Learned in Leading Academic Transformation – A Case Study in Merging Programs to form a New Department of Civil & Environmental Engineering

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Abstract

Change can be hard in any organization, and academic departments are no different. Over time, these bodies develop unique cultures and modes of operation that shape all aspects of teaching, research, and service. In 2025, the United States Military Academy underwent an institution-wide department reorganization designed to leverage efficiencies, unleash synergies, and accelerate preeminence. One result of that reorganization was the merger of two ABET accredited undergraduate engineering programs, Civil Engineering and Environmental Engineering, into one new department. These programs had existed previously in separate departments for 36 years with different leadership, policies, procedures, and philosophies; therefore, their combination into one new, unified department presented both challenges and opportunities. The objective of this work is to provide lessons learned during this merger, which may be particularly relevant and useful to other institutions undergoing similar reorganization and transformation efforts. We consider various models for successfully leading change and assess the applicability of these models to academia based on our own lessons learned. Findings reveal that establishing a clear organizational vision and mission to guide functional working groups with the broadest possible faculty involvement had a significant positive impact in effecting change. In addition, setting the conditions at the beginning for open-mindedness to compromise and change was critical. One of the most effective lines of effort was establishing and communicating a strong new departmental identity through symbols, ceremonies, workshops, and other means. This enabled us to truly “lead” versus merely “manage” change. Finally, major challenges of the reorganization revolved around resourcing, to include personnel and facilities. Comparison of these lessons learned to existing models for organizational change reveals that the models are useful with some modifications.

Introduction

Organizational change can be challenging and disruptive, but it also provides opportunities for growth. This is particularly true in the structure of academia, where the nature of four-year degree programs tends to provide a bias toward stability that buffers efforts toward rapid and bold entrepreneurial shifts.

Shifts do happen, though, for a variety of reasons. Beginning in 2023, the United States Military Academy began an intensive process of examining possible changes to its 13-department structure to leverage efficiencies, unleash synergies, and accelerate preeminence. Since 1989, the institution had operated under a flat structure with all 13 academic departments reporting directly to the Dean. Under this structure, the Civil Engineering Program resided within the Department of Civil and Mechanical Engineering, while the Environmental Engineering Program was in a Department of Geography and Environmental Engineering that included four majors – Geography, Environmental Engineering, Environmental Science, and Geospatial Information Science. Although this arrangement had both advantages and disadvantages, the institutional reorganization effort ultimately decided to join the Civil Engineering Program and the Environmental Engineering Program to form a single department, thereby creating synergy and collaboration opportunities in a variety of ways to support teaching, research, and faculty. Since these programs had existed previously in separate departments for 36 years with different leadership, policies, procedures, and philosophies, their combination into one new, unified department presented both challenges and opportunities.

The objective of this work is to provide lessons learned during this merger, which may be particularly relevant and useful to institutions undergoing similar academic reorganization and transformation efforts. We relate these lessons learned to existing models of organizational change and assess their applicability to academia.

Background

Context of Academic Reorganization

Academic mergers or consolidations [1] are a frequent phenomenon as institutions face constant pressure to meet expected and unexpected challenges. Historically, social, economic, and cultural factors were the primary drivers of change in university structure, a trend that continues in the current academic landscape due to socio-economic changes such as declining enrollment, the rise of online education, and budgetary constraints or prioritization [2] [3] [4].

While limited resources frequently require universities to enact change more rapidly than they are traditionally accustomed [5], evolving intellectual goals can also drive change. John

Lombardi argues that a university's primary pursuit is to be a "quality engine"—creating quality as represented by research and students with a focus on institutional purpose [6]. Delivering and improving this quality often requires organizational change as fields of inquiry evolve and new fields become established.

In addition, traditional academic structures (colleges, schools, departments) are increasingly being viewed as an "arbitrary administrative artifact" that may not be the optimal system for universities to provide the best academic product or collaboratively work on complex global challenges [5]. These typically rigid structures often elicit a "silo effect" that imparts barriers to cross-organizational communication and synergy and limits effective and efficient allocation of important resources [2]. Therefore, thoughtful reorganization is often warranted to capitalize on emerging synergistic opportunities.

However, organizational culture within higher education is traditionally resistant to change [2], and significant reorganizations almost always generate angst and apprehension among staff and faculty [3]. Overcoming such resistance to change is critical to the success of the reorganizational effort. Models for leading organizational change can be useful in generating support and creating buy-in to the new organization. We present several of these models below. While transition is often difficult, many who initially oppose restructuring eventually begin to embrace it once the benefits of the new, more efficient organization become apparent [3].

Models for leading organizational change

Literature abounds with work on framework models for leading organizational change. Three examples include John Kotter's "Leading Change," Joan Gallos' and Lee Bolman's "Three P's of Change," and Ronald Heifetz's "Adaptive Leadership Model" [7] [8] [9].

Kotter's "Eight Steps to Leading Change" [7] are as follows:

1. Establishing a sense of urgency
2. Creating the guiding coalition (build the change team)
3. Developing a vision and strategy
4. Communicating the change vision
5. Empowering broad-based action (remove obstacles and encourage action)
6. Generating short-term wins
7. Consolidating gains and producing more change (sustain acceleration)
8. Anchoring new approaches in the culture (institute change)

According to Kotter, the first four steps "help defrost a status quo" while steps five through seven "introduce new practices" and step eight "grounds the changes in the corporate structure" to "make them stick" [7].

Gallos and Bolman posit the “Three P’s of Change: Patience, Persistence, and Process” in terms of leading academic organizational change [8]. Patience is imperative because leaders should not become discouraged when movement is sometimes slow. Some issues are just too important to rush, and solutions take time to develop. Persistence is necessary in order to attract support and outlast potential holdouts to change. Process is essential because, especially in an academic setting, faculty have expectations for how things should progress and “are unforgiving when they perceive authoritarian overreach, violation of legitimate procedures, or processes that lack internal credibility” [8]. The process must ensure an opportunity for faculty to engage in and influence decisions [8].

Ronald Heifetz’s “Adaptive Leadership Model” is used by Harris et al. and Coakley & Randall to argue that department heads must “take a proactive role in change processes through six steps”:

1. Identify the challenge
2. Unbundle issues – identify the key issues and communicate them clearly to staff and faculty
3. Frame issues and focus attention – frame and prioritize the areas where change is required
4. Secure ownership – secure faculty ownership of the problem-solving process
5. Manage stakeholder conflict and maintain stress – manage any emerging conflicts and maintain focus on the problem
6. Create a safe haven – establish a safe place where disparate perspectives can be aired openly without negative repercussions [9] [10]

Our approach to transformation

The plan to create a new Department of Civil and Environmental Engineering (CEE) was finalized in the winter of 2024 with a department head chosen shortly thereafter. Planning began in earnest in the spring of 2024 for an official reorganization date of July 1st, 2025.

Reorganization progressed in three stages.

In **stage one**, the department head established a transition team that consisted of three faculty from each program representing the equities of different groups (e.g., junior faculty, senior faculty, civil engineers, environmental engineers, etc.). The department head provided planning guidance to the team by emphasizing unity across disciplines as well as a holistic philosophy that focused on taking the best aspects of both programs to create the new department. The communication of these goals was critical to the success of this stage as it set the tone of “two programs, one department” that was essential to later success. This guidance enabled the transition team to propose a mission and vision for the department—essentially, an endstate that would focus and guide subsequent planning. In addition, the transition team established the timeline for reorganization, with targets for an “initial operational capability” (IOC) beginning in

July of 2025 and a “full operational capability” (FOC) roughly two years later. FOC status was defined by completion of all facilities moves and personnel hires.

Stage two began in the fall of 2024 and continued through the official activation date of July 1st, 2025. This stage involved the creation of seven working groups (Table 1), each of which tackled one aspect of the reorganization deemed of critical importance by the department head. The transition team assigned a chair to lead each working group with a specific charter, and faculty and staff were encouraged to volunteer for a working group that interested them. The goal was to include the greatest number of individuals from both programs in the effort in an organized manner (Figure 1).

Table 1: Transition working groups and their functions.

Working Group	Function
Personnel	Realign personnel, establish supervisors and rating chains
Curriculum	Administratively realign courses (names, numbers, responsibilities), and modify or establish new courses to leverage efficiencies (e.g., introductory or capstone courses for both environmental and civil engineers)
Facilities	Coordinate minor construction and moves of faculty offices and labs
Research Center	Establish a name and mission for the center and lay the groundwork for hiring a director
Communications	Develop a website, social media, and symbols of department identity (crest, motto, ceremonies, etc.)
Training	Develop a department level “Teaching and Learning Philosophy” and establish an instructor summer training program
Administration	Create processes for all aspects of logistics, data management, and operations for the new department

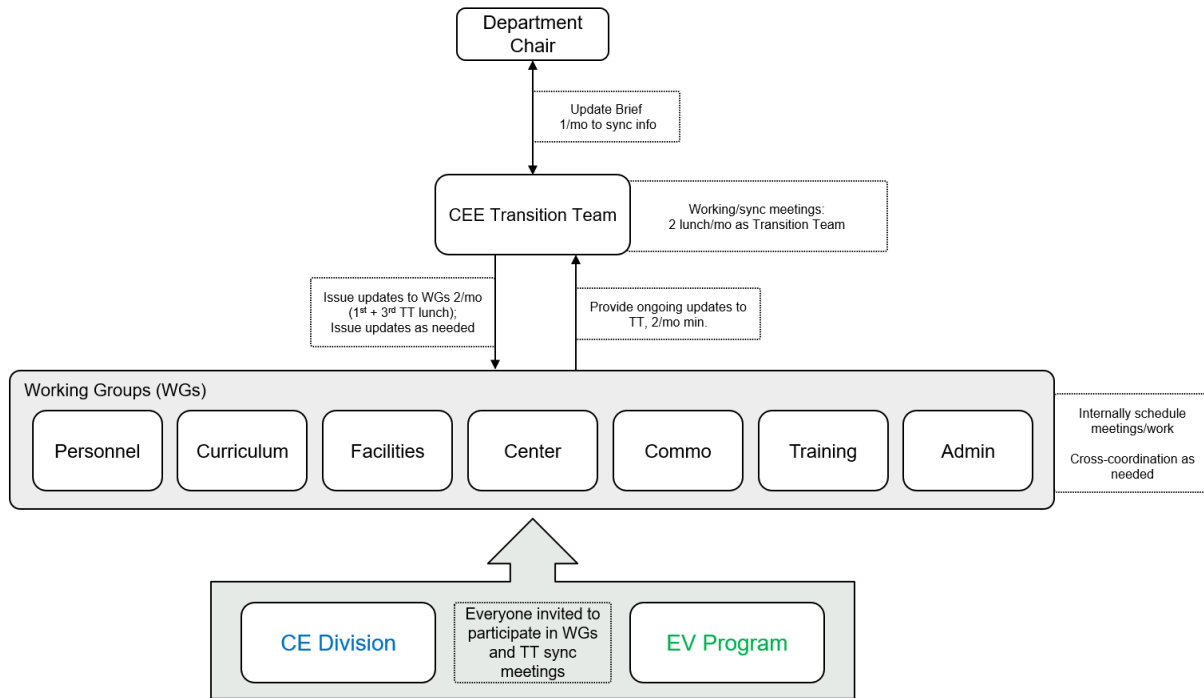


Figure 1: Working group and transition team organization

During this stage, the transition team coordinated and synchronized the efforts of the working groups through in-progress reviews on a bi-weekly schedule. This process maintained steady forward progress in a coordinated fashion and gave the department head a public forum in which to provide decisions and guidance. In addition, the transition team maintained a “synchronization matrix” to visualize and describe how transition activities were aligned across time and space (Figure 2).

Department of Civil & Environmental Engineering – Transition Sync Matrix as of Day Month Year

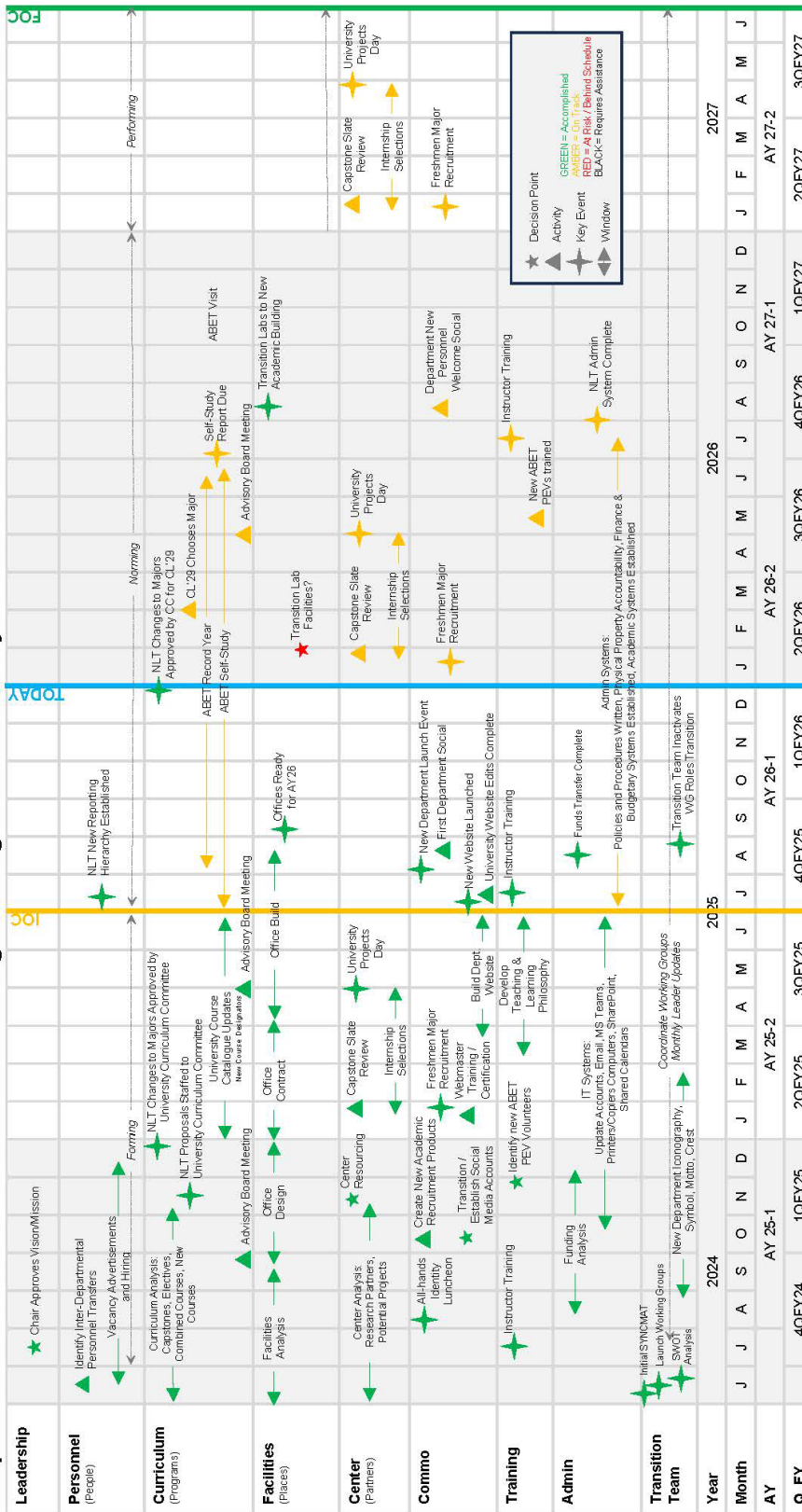


Figure 2: Example Synchronization Matrix arranged by Working Group Lines of Effort and date showing major decision points, activities, key events, and task windows

Stage three of the transition began in the summer of 2025 following the department’s official activation and continued throughout the department’s “IOC” phase. After activation, several working groups transitioned their responsibilities to those individuals in the new department responsible for that function on a daily basis (e.g., administrative staff). With much of the initial logistical and administrative requirements complete, focus was redirected toward the longer-term optimization of the curriculum, and the department head established several new working groups to address specific aspects of curriculum.

Reflections & lessons learned

While not yet complete, our reorganization thus far has provided a set of lessons learned that can be helpful to other entities undergoing academic reorganization. We present six of them here in relation to the aforementioned models for leading organizational change (Table 2).

Table 2: Relation of lessons learned to existing change models.

Lesson Learned	Relation to Existing Models
Establish a vision and mission	• Kotter Steps 3-4
Create a clear organizational identity	<i>n/a</i>
Employ working groups	• Heifetz Steps 2-5 • Gallos and Bolman: “Patience, Persistence, and Process”
Power down	• Kotter Step 5 • Heifetz Step 6
Cultivate a sense of open-mindedness and willingness to change	• Kotter Step 8 • Heifetz Step 5
Be prepared for challenges beyond your control	• Kotter Step 7 • Gallos and Bolman: “Patience”

- Establish a vision and mission.** Establish a shared and unifying mission and vision early so that everyone knows the desired endstate. In our case, we emphasized a broad overlap between both programs (Figure 3) with many shared interests and capabilities focused on a single common endstate. For example, we identified multiple future courses which would service students in both programs, held joint ceremonies for both majors, created a common student club, etc. This action related directly to Steps 3 and 4 of Kotter’s change model, which emphasize developing and communicating a vision.

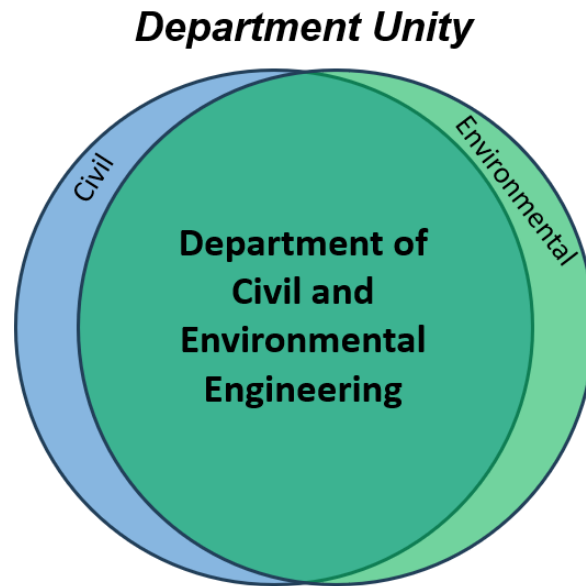


Figure 3: Department unity Venn diagram

- **Create a clear organizational identity.** We spent significant effort establishing our new identity by designing a distinctive crest that would communicate who we were to both internal and external audiences. The crest was a visual symbol on slides, t-shirts, water bottles, etc. that created a sense of esprit-de-corps and unity. In addition, we created a motto (“CEE the Future!”), a symbol (a hardhat issued to all staff, faculty, and students), and other instruments to generate a sense of departmental pride.
- **Employ working groups.** Use a working group approach to focus teams on specific aspects of the reorganization. Provide these groups with broad guidance (mission, vision, timeline, etc.) but then let them operate freely within those constraints. Working groups should provide updates to the leadership at periodic intervals, thus creating opportunities for guidance, decisions, and redirection. This approach enables the transition workload to be spread out yet still synchronized. Linked to the “Patience, Persistence, and Process” of Gallos and Bolman, these working groups also relate directly to Heifetz’ Steps 2-5.
- **Power down.** Assume responsibility for transition planning at your level so you have some control over your destiny. Lean on the institution above for resourcing, but detailed planning should be left at the program or department level so there is a sense of ownership. Most critically, involve the broadest possible selection of both faculty and staff (all of them, if possible) in some aspect of the reorganization planning. This provides the greatest possible opportunity for collecting good ideas, spreads the work, and creates “buy-in” to the change. Encourage people to speak up—if they have an opinion, now is the time to express it. This relates to Kotter’s Step 5 (empowering broad-based action), as well as Step 6 of Heifetz (create a safe haven).

- **Cultivate a sense of open-mindedness and willingness to change.** From the beginning, all staff and faculty should think about the transition as an opportunity to take only the very best aspects of their previous organizations into the new one. While it is important to honor past identities so that all members of the new organization feel that their past is valued, members should be encouraged to not be anchored to the past. The focus should be an evolution from what was already good and the opportunity to create something even better. This relates to Kotter's Step 8 (anchoring new approaches), and Heifetz's Step 5 (managing conflict).
- **Be prepared for challenges beyond your control.** The largest challenges we experienced centered around aspects that were beyond our control—specifically facilities and personnel resources. While the reorganization was well-supported by the institution, certain factors prevented all facilities (e.g., labs) and personnel from being available upon activation. Such challenges relate to Kotter's Step 7 (consolidating gains), and require the employment of the long-term view, i.e., the “Patience” described by Gallos and Bolman. That being said, the new department was well-armed to face these challenges by the investments made in creating its vision, identity, and sense of shared purpose by all staff and faculty.

Most aspects of the models established by Kotter, Gallos and Bolman, and Heifetz were useful for our experience of academic reorganization (Table 2). However, creating a clear organizational identity through symbols, mottos, ceremonies, or other means is one that the existing models fail to emphasize. The impact of such efforts was far-reaching. For example, we held a competition to design a crest that reflected the new departmental identity, which we then reproduced in a variety of ways (posters, coins, shirts, etc.) to ignite departmental pride. We held department social events and a formal activation ceremony presided by the Dean of the institution to recognize our existence to the broader community. The hardhats for staff and faculty are worn at department events, and students earn reward decals for exceptional performance in their courses to adorn their hardhats. While such aspects can seem trite, their value throughout the process was immense since we had to cultivate new departmental identity from scratch. Establishing esprit-de-corps and identity is the difference between “leading” change and merely managing it.

As mentioned above, our largest challenges revolved around personnel and facilities resourcing; these challenges were a function of the short timeline of the reorganization, not any lack of institutional support. It was simply not possible to complete some of the facilities moves (the environmental labs, for example) by the IOC date. In addition, certain faculty and staff position reallocations were not possible in that timeline due to the limitations of the personnel system. An additional challenge related to the short reorganization timeline has been the establishment of administrative systems (purchasing, travel, budgeting, evaluations, awards, etc.), which only began in earnest after the department formed on July 1st. This created a situation where we were “building the airplane while in flight,” so to speak. If we could do it again, we might ask for key

administrative personnel to be released from their former positions earlier so they could begin creating some of these processes prior to the IOC date.

Conclusion

While organizational change can be difficult, it can also provide new opportunities and avenues for growth that did not exist prior to the transition. We achieved a successful merger of two ABET accredited programs into one new organization by creating a clear departmental vision and identity, soliciting broad staff and faculty involvement through synchronized working groups, and encouraging a culture of open-mindedness and willingness to change. These areas of focus aligned with published models for organizational change, though some nuances exist. This approach also enabled the team to react to resource challenges, such as facilities and personnel. With reorganizations occurring across higher education due to financial or other pressures, the lessons learned from our experience can be of great use to others who find themselves leading through academic change.

Disclaimer

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