

West Point cadets in formation on the Plain during the 2018 Superintendent's Award Parade 24 May 2018 at the U.S. Military Academy, West Point, New York. (Photo by Cadet Zachary Brehm, USMA)

West Point 2050 How the U.S. Military Academy Is Preparing for Future Conflict

Lt. Gen. Steven W. Gilland, U.S. Army Brig. Gen. Shane R. Reeves, U.S. Army

or many Americans, the U.S. Military Academy at West Point evokes a sense of history, patriotism, and professionalism like few other institutions. The image of the West Point cadet on parade, stoic and precise in gray-and-white uniform, is symbolic of martial excellence and a commitment to the values of "Duty, Honor, Country."¹ To some, however, West Point's stewardship of tradition might seem antiquated and out of step in contemporary society. From afar, West Point might seem overly rigid and inflexible. However, nothing could be further from the truth. The U.S. Military Academy remains a dynamic and adaptable institution, and its current reorganization effort is indicative of a commitment to modernization in service to the Nation.

In a global environment defined by looming great power competition and rapidly evolving technologies, the U.S. Military Academy is transforming in ways that will ensure the Army's competitive advantage in any future conflict. The reorganization will be comprehensive, affecting instruction in science, technology, engineering, and mathematics (STEM); the humanities; and the social sciences. It will also emphasize subjects of strategic importance to warfighting, such as the use of autonomous and artificial intelligence (AI)-enabled systems, the impact of "big data" on military operations, and the promotion of energy resilience in resource-constrained environments. In short, preparing cadets to lead in the future necessitates action now. It requires foresight, innovative thinking, and considered effort to reorient our structures and curriculum to the emerging realities of our time. As always, West Point stands ready to meet the needs of the Army and the Nation.

A History of Transformation

Evolution, reorganization, and transformation have always been critical to the success of West Point. Douglas MacArthur, who served as West Point's thirty-first superintendent, was one of the Academy's greatest agents of change. After returning from the battlefields of France in the Great War, MacArthur was charged with modernizing West Point. He leapt at the opportunity to reinvigorate an institution that he believed failed to keep up with the times. "How long are we going to go on preparing for the War of 1812?" he once asked.² With an eye toward future warfare, MacArthur left no corner of the Academy untouched during his tenure.

MacArthur started by reforming West Point's infamous fourth-class system, which often subjected fourth-class cadets (i.e., freshmen, or "plebes") to harsh treatment by upperclassmen, ostensibly to "weed out" the weak and unworthy.³ Instead, he emphasized positive leadership with the goal of developing strong, self-confident, and independent future officers. MacArthur also rejected the Academy's paternalistic approach to officer development and instead gave cadets significantly more freedoms in the hope of fostering responsible decision-making. While this approach came with obvious risks, MacArthur believed these reforms were necessary to develop confident, socially adept, and responsible officers.

Complementing this radical new leader development model was an equally radical evolution in cadet education. Determined "to adapt the curriculum to the realities of an industrialized, interconnected world," MacArthur undertook an aggressive revamping of the academic program.⁴ The result was a commitment to a broad education that balanced technical and humanity courses, dramatically improved classroom instruction, and engaged a more diverse faculty. Perhaps most importantly, MacArthur's efforts promoted a culture of introspection that encouraged continual refinement and curricular adjustment of the academic program.

Equally important to MacArthur was the need to overhaul the physical fitness program at West Point.

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MacArthur's combat experience impressed on him the physical

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West Point cadets rappel from UH-60 Black Hawk helicopters during Air Assault School 30 June 2022 at the U.S. Military Academy, West Point, New York. (Photo by Elizabeth V. Woodruff, USMA Public Affairs Office)

demands of warfare, and he believed that athletic competition helped develop the stamina, strength, and leadership abilities critical for success on the battlefield.⁵ Accordingly, he set out to make every cadet an athlete. MacArthur expanded intercollegiate athletics, mandated intramural sports, and implemented a significantly more rigorous physical education curriculum. He famously declared, "Upon the fields of friendly strife are sown the seeds that, upon other fields, on other days, will bear the fruits of victory."⁶ The culture of fitness he established elevated the physical expectations of West Point cadets and graduates.

Above all else, MacArthur modernized military training at the Academy. He recognized that the Academy's summer encampment and its Napoleonic era drills failed to prepare cadets for the realities of modern combat. Consequently, he made the controversial decision to end the longstanding tradition. Instead, MacArthur required most upper-level cadets to spend the summer at an active military post where they could interact with noncommissioned officers, train handson with new equipment, and practice modern tactics. Although this initiative was later rescinded in favor of a return to summer encampment, MacArthur's emphasis on practical, relevant, and experiential military training eventually became the norm at the Academy.⁷

MacArthur knew the post-World War I peace was fragile. He believed the United States would likely be drawn into another conflict in Europe, and he was convinced that conflict would be radically different than anything that had come before. His effort to transform the Academy, therefore, was driven by a conviction that change was necessary to prepare the Corps of Cadets to lead the American military in the coming conflagration.

West Point 2050

Today, the Army and the Academy are again at an inflection point. Geopolitical competition and technological advancements threaten to undermine



West Point cadets discuss the integration of technology into their history research project 30 April 2024 at the U.S. Military Academy, West Point, New York. (Photo by Renée Sanjuán, USMA Office of the Dean)

the rules-based international order established in the aftermath of World War II. To confront the security challenges of our time, the Academy is once again leaning into transformation. In particular, the study of AI and its implications for national security are a significant focus of this transformation effort. The AI revolution has forced change in society to a degree rarely seen in human history, and future developments in AI only promise more change, disruption—and opportunity. To address the capabilities of AI and other emerging technologies, West Point is modernizing the physical infrastructure of the Academy as well as how it organizes, educates, and develops its cadets. These changes are posturing West Point to meet the increasingly complex environment of modern warfare.

The Cyber and Engineering Academic Center is the centerpiece of West Point's physical modernization.

Scheduled for completion next year, the new 136,000 sq. ft. academic building will feature cutting-edge classrooms and laboratories devoted to education and scholarship in science, technology, engineering, and mathematics. A robotics bay and cyberspace range will expose cadets to technical aspects of the future battlefield while enhancing opportunities for innovative research.

Other critical renovation projects, including the modernization of academic buildings, cadet barracks, and athletic facilities, will reinforce many of West Point's strengths. One example is the planned renovation of Thayer Hall, which was once a large indoor riding hall and venue for instruction in horsemanship.⁸ Converted to classroom space in 1958, the renovated Thayer Hall will become the focus of West Point's humanities disciplines.⁹ Updates such as this will



A West Point cadet showcases how multiple technologies can converge for an Arctic remote mapping project 21 April 2024 in the Department of Geography and Environmental Engineering at the U.S. Military Academy, West Point, New York. (Photo by Christopher Hennen, USMA Public Affairs Office)

facilitate small class sizes that promote collaboration between faculty and cadets while energizing an academic program built on a powerful core curriculum and interdisciplinary research. These changes will have a generational impact.

Physical upgrades, however, are necessary but not sufficient to fully modernize the Academy for this century's challenges. This past year, the Academy's leadership examined the academic program to determine how it should be structured to intellectually prepare graduates to lead across the full spectrum of conflict. This comprehensive review sought to understand and challenge the academic program's current assumptions, identify gaps and areas for improvement, and where possible, accelerate preeminence and unleash synergies.

The yearlong review resulted in West Point's first academic program reorganization since 1989. The reorganization will implement changes both major and minor across the Academy's academic disciplines and departments. One highlight includes the creation of a Department of Mechanical and Aerospace Engineering that will familiarize graduates with space and the developing capabilities of unmanned aircraft and other drone technology. Upon its establishment, the new department will become a national leader in undergraduate engineering education. An aerospace major within the department will focus on six aeronautical engineering competencies and two astronautical ones, taught by the Department of Physics and Nuclear Engineering. Led by a unique blend of civilian and military faculty experts and supported by flight laboratories conducted by the U.S. Military Academy's 2nd Aviation Detachment, the department will offer an unparalleled environment for the education of cadets.¹⁰

The reorganization will also elevate the teaching of space-related topics in the curriculum. Recognizing the importance of space as a domain of warfighting, a new space "community of practice" will integrate the efforts of disciplinary experts, not just in astrophysics and aerospace engineering but also in mathematics, data



A West Point cadet renders a salute while participating in the Plebe Parent Weekend Parade on 22 March 2024 at the U.S. Military Academy, West Point, New York. (Photo by Christopher Hennen, USMA Public Affairs Office)

science, law, ethics, and social science, to examine all aspects of emerging space technology from inception to employment on the battlefield.¹¹

Operational and strategic sustainability will also gain greater prominence in the curriculum. A new sustainability community of practice and a realigned Department of Civil and Environmental Engineering will explore ways to improve the energy resilience and sustainability of U.S. forces during military operations. Creating energy resilience will ensure the United States is capable of projecting power when necessary, even under the harshest conditions. As such, it is vital to the Army's ability to train and equip forces at home and to employ forces overseas. The sustainability community of practice will also examine ways to improve survivability during multidomain operations, such as by masking heat and other detectable signatures on the battlefield. Ultimately, promoting energy resilience and sustainability will make the Army more lethal and ensure our ability to deter and defeat any adversary.

In the emerging era of generative AI and other transformative technologies, the importance of human insight and discernment cannot be understated. In addition to understanding the technologies transforming the way we fight, cadets must learn to be thoughtful, agile, decisive leaders in uncertain times. Understanding the human experience is central to good leadership, and education in the humanities lies at the very heart of what West Point must do to ensure our future leaders understand the human, social, and geopolitical environment they are about to enter. Courses in a newly combined Department of English and World Languages will educate cadets on accurate and socioculturally effective oral and written communication; cross-cultural competence; critical thinking; language-focused cultural, historical, and literary analysis; and rhetorical, sociolinguistic, and discourse-based language analysis while also establishing crucial foundations for lifelong learning. Human judgment remains critical to how the Army operates, and West Point is

preparing cadets to be mentally agile, critically thinking, innovative officers capable of excelling under the most difficult combat conditions.

Additionally, a combination of our law and philosophy programs in a Department of Law and Philosophy will better prepare cadets to confront the legal and ethical complexities of decision-making on the modern battlefield. Among other things, courses in the department will force cadets to grapple with timely issues shaping modern warfare like the use of drones, autonomous weapons, and AI.¹² As future leaders, cadets must be able to navigate uncertainty and exercise superior judgment to make both legal and ethical decisions across the broad spectrum of conflict. The Department of Law and Philosophy will challenge cadets to evaluate problems in creative and dynamic ways while ensuring they remain true to the law and the ethical obligations of military service.

Meanwhile, West Point's current transformation has not disrupted the important work of the U.S. Military Academy. Our faculty, staff, and cadets continue to engage in research and scholarship related to national security and military affairs. This active engagement ensures the Army remains at the vanguard of developments affecting our national defense. In a recent article for West Point's Modern War Institute, Army senior leaders, including the chief of staff of the Army, emphasized the importance of professional discourse to solving the military's most pressing problems.¹³ In their article, the authors encouraged leaders at all levels to "strengthen our profession from top to bottom by building expertise through written discourse."14 The West Point Press, which was launched last year, was established to support exactly the type of engagement and dissemination of ideas the authors mentioned in their article. In addition to publishing peer-reviewed books, white papers, reports, and conference proceedings, the West Point Press also publishes several leading journals, including the Cyber Defense Review, which features articles dedicated to over-the-horizon problems of significance to the Army and the Nation.

Lastly, the newly created West Point Werx Innovation Hub will help unleash the interdisciplinary potential of the academic program. Ideally situated within the Army's innovation ecosystem, the Innovation Hub will bring together experts from throughout the Academy and serve as connective tissue across our growing portfolio of Army, Department of Defense, industry, and higher education partners. The Innovation Hub will help field requirements and requests from these partners while bringing together departments and centers to work creatively on cutting-edge projects. The Innovation Hub will also help break down siloes and form teams that can tackle problems from multiple disciplinary perspectives. By facilitating cross-disciplinary work in areas such as space, sustainability, cyber and data, human-machine integration, and the law and ethics of warfare, the Innovation Hub will focus the intellectual capital of West Point to help solve the Army's and Nation's most complex challenges.

Innovation at West Point starts with cadet development. The Army needs officers who can lead cross-functional teams to solve complex problems, and the Innovation Hub will provide an environment that deliberately fosters collaboration, integration, and synchronization of ideas so that cadets can develop relevant skills through hands-on experience.

Concluding Thoughts

In 1919, Douglas MacArthur was charged with preparing cadets for leadership in the post-World War I environment. He recognized that success required making necessary, albeit difficult, changes. But he also understood that he did not have the luxury of maintaining the status quo.

The Army and the Academy face a similar situation today. Modernizing for an uncertain future will involve hard choices about prioritization and risk, and reorganization of the academic program represents a critical step in West Point's preparation for future conflict. The creation of a Department of Mechanical and Aerospace Engineering, the introduction of an aerospace major, and a renewed focus on operational and strategic sustainability are part of the Academy's broader effort to modernize and adapt. At the same time, other disciplinary perspectives will continue to be used to evaluate the Nation's toughest national security challenges. Working in collaboration, through communities of practice and with the support of the West Point Press and the West Point Werx Innovation Hub, the entire West Point enterprise remains committed to preparing cadets for leadership in an unsettled and unpredictable world.

Retired Gen. Mark A. Milley and Eric Schmidt observed in *Foreign Affairs* that "the character of war is changing both rapidly and fundamentally," and they urged American officials to change and adapt "faster than the country's adversaries."¹⁵ The U.S. Military Academy understands what is at stake, and West Point is adapting, engaging, innovating, and transforming to ensure our graduates are ready to fight and win our Nation's wars, whenever and wherever they are called upon to do so.

Notes

1. Eric Barteit, "Cadets Adapt, Overcome While Finding Inspiration," Army.mil, 15 April 2020, <u>https://www.army.mil/article/234627/</u> <u>cadets adapt overcome while finding inspiration</u>.

2. Douglas MacArthur, quoted in Crispin Burke, "A Few Words in Defense of MacArthur," *Best Defense* (blog), *Foreign Policy* (website), 6 October 2010, <u>https://foreignpolicy.</u> <u>com/2010/10/06/a-few-words-in-defense-of-macarthur/</u>.

3. Lance Betros, *Carved from Granite* (College Station: Texas A&M University Press, 2012), 243–46; Keith J. Hamel, "Fourth Class to Four Class Leadership," *West Point Magazine*, 5 May 2023, 40.

4. Betros, Carved from Granite, 121.

5. lbid., 173.

6. Stephen Ambrose, *Duty, Honor Country: A History of West Point* (Baltimore: Johns Hopkins University Press, 1966), 66.

7. Betros, Carved from Granite, 219–21.

8. Ibid., 143. An earlier riding hall built in 1855 and located near present-day Thayer Hall was believed to be the largest indoor riding hall in the United States at the time; see also Sidney Forman, *West Point: A History of the United States Military Academy* (New York: Columbia University Press, 1950). 9. Betros, Carved from Granite, 143.

10. Renee Sanjuan, "West Point Modernizes Its Aeronautical Flight Labs," Army.mil, 25 March 2022, <u>https://www.army.mil/</u> article/255039/west_point_modernizes_its_aeronautical_flight_labs.

11. U.S. Space Force, *Spacepower: Doctrine for Space Forces* (Washington, DC: U.S. Space Force, June 2020), <u>https://apps.dtic.mil/sti/pdfs/AD1129735.pdf</u>.

12. See, for example, Mark A. Milley and Eric Schmidt, "America Isn't Ready for the Wars of the Future," *Foreign Affairs* (website), 5 August 2024, <u>https://www.foreignaffairs.com/united-states/aiamerica-ready-wars-future-ukraine-israel-mark-milley-eric-schmidt</u>.

13. Randy George, Gary Brito, and Michael Weimer, "Strengthen the Profession: A Call to Army Leaders to Revitalize Our Professional Discourse," Modern War Institute, 11 September 2023, <u>https://mwi.westpoint.edu/strengthening-the-profes-</u> <u>sion-a-call-to-all-army-leaders-to-revitalize-our-professional-dis-</u> <u>course/</u>.

14. Ibid.

15. Milley and Schmidt, "America Isn't Ready for the Wars of the Future."

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