EDUCATING ARMY LEADERS

DEVELOPING INTELLECT AND CHARACTER TO NAVIGATE A DIVERSE AND DYNAMIC WORLD





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PREFACE

The United States Military Academy is a place like no other. Cadets, staff, and faculty learn and grow together for a common purpose: defense of the republic. West Point educates and inspires leaders of character who think critically, internalize their professional identity, and employ their education to help build the Army and the nation's future. We have been doing this for over two centuries and must continue to adapt to an ever-changing world. The roles, responsibilities, and missions of the Army continually shift, requiring graduates to have deep disciplinary knowledge as

well as the agility and imagination to work in a variety of venues and across any number of disciplines. *Educating Army Leaders* and our strategic plan present our vision for how we maintain and enhance this tradition of academic excellence and innovation. They describe how we educate and inspire cadets and explain how we work together to achieve our goals.

Educating Army Leaders and our strategic plan center on our faculty model. This model blends recent operational experience in the Army with disciplinary expertise and the best pedagogical approaches, all grounded in the values

Academic Program Vision

West Point educates and inspires leaders of character who think critically, internalize their professional identity, and employ their education to help build the Army and the nation's future.

and mission of USMA, and sustained by tailored faculty development. We encourage our faculty to engage with cadets in the classroom, on academic trips, with academic clubs, and on athletic fields. The cadets and faculty who we develop using this model are remarkable individuals who have committed to serve their nation in a variety of capacities. Our faculty model also enables West Point to provide intellectual capital to the Army and the nation through the contributions of faculty, staff, cadets, and centers. We strive to act as innovative thought leaders in all that we do.

The Academic Program is one of three programs - academic, military, and physical - grounded in our character program that help to comprise the West Point Leader Development System (WPLDS). I encourage you to read USMA's "Developing Leaders of Character" and the strategic plan, "Commitment to Character and Excellence," to more fully understand how all of the Academy's programs work together to shape the leaders of tomorrow. As Martin Luther King, Jr. wrote while he was in college, "The function of education is to teach one to think intensively and to think critically. [But] We must remember that intelligence is not enough. Intelligence plus character - that is the goal of true education. The complete education gives one not only power of concentration, but worthy objectives upon which to concentrate."

To lead is to inspire. As faculty, it is our primary job to plant the seeds of inspiration throughout the Corps of Cadets and in one another to allow us all to achieve and excel in our mission to prepare leaders for the future of our Army and our nation.

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Dean of the Academic Board

THE MISSION

As members of the Academic Program at the United States Military Academy, we educate, train, and inspire the men and women who will one day lead our Army and our nation. The faculty and staff must be dedicated to building these leaders today, knowing that the return on this investment may come decades into the future. It is our responsibility to equip West

Point graduates to respond well to any situation with character and strength. We help them build the intellectual capacity to be lifelong learners and to bring the pursuit of knowledge, truth, and reason to their life's work, both inside the Army and beyond. If we root them firmly in these traits, there is no limit to how far they can grow.

The United States Military Academy challenges cadets with a broad base of structured, rigorous, and developmental experiences across the academic, military, physical, and character programs to shape self-aware, confident, humble, and principled leaders. These four programs and their associated experiences are elements of the West Point Leader Development System (WPLDS). This system is more fully described in "Developing Leaders of Character" (DLC).

Strategic Posture Statement

West Point has for most of its history been engaged in the project of educating, training, and inspiring a homogenous Corps of Cadets. It has graduated classes of Second Lieutenants prepared to execute a largely uniform set of responsibilities in the Army. For many years, the work of the institution was likewise performed by a fairly homogeneous staff and faculty. Today, however, we have an unprecedentedly diverse Corps taught by diverse faculty members who are preparing graduates for an undefined set of roles, responsibilities, and missions. Tomorrow's Army needs a heterogeneous set of officers with a broad array of abilities and perspectives—with deep disciplinary knowledge as well as with the agility and imagination to work across disciplines—to serve in an increasing range of specialties, from traditional branches to the newest, Cyber. How can the Academic Program best meet the challenges and exploit the opportunities of the twenty-first century as West Point approaches its 250th anniversary in 2052?

Through the DLC, all of these programs support USMA's strategic plan, "Commitment to Character and Excellence."

The Dean of the Academic Board is responsible for ensuring that the Academic Program contributes to the achievement of WPLDS through the academic curriculum and associated activities, and for providing the necessary knowledge, skills, and attributes that future officers should have as they begin their careers as Second Lieutenants.

THE FACULTY

USMA's unique mission, "to educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of Duty, Honor, Country and prepared for a career of professional excellence and service to the nation as an officer in the United States Army," requires a unique faculty committed to developing young leaders. Faculty at USMA are multifaceted. We are teachers, role models, mentors, institutional leaders, nationally and internationally renowned scholars, leaders in our respective professional societies, and caring, engaged members of the community. USMA faculty developed a bionic foot to change the lives of our wounded warriors; others conducted groundbreaking research in the field of combating terrorism; and still others continue to inform the nation's preparedness against weapons of mass destruction. The faculty's broad range of research pursuits creates a rich and engaging learning environment for faculty and cadets.



The USMA faculty model is deliberately designed to include individuals with varying career paths to meet the needs of our mission. A combination of full-time military and civilian faculty members make up the core of this blend of excellence. With advanced degrees from an array of academic institutions including, but not limited to, Harvard, Princeton, Yale, Stanford, MIT, Oxford, and Cambridge, the faculty are

united as exceptional educators dedicated to developing critical and independent thinkers who will succeed as Army officers. Approximately 18% of our faculty are senior military, 55% are junior military, and 27% are civilians (junior and senior). This blend of backgrounds is valued for providing diverse expertise and perspective to collectively accomplish our mission. Our military faculty are carefully selected from across the Army and our civilian faculty are recruited through nationally-competitive searches. Our most senior military faculty, Professors, United States Military Academy (PUSMAs), are nominated by the President of the United States and confirmed by the United States Senate.

Senior Faculty

Our senior faculty includes a blend of military officers and civilians who have achieved the position of Professor, USMA; Academy Professor; and/or the academic rank of Associate

Professor or Professor in their respective disciplines. Senior faculty members offer academic expertise and provide continuity to the curriculum because of their long-term appointments. Our military faculty members bring careers of leadership experience in the operational Army, and our civilian faculty members provide strong connections to higher education and other areas of society. All senior faculty members are expert educators who understand pedagogy, curriculum design, course design, and best practices in assessment. They are responsible for establishing the intellectual foundation for service as a commissioned officer and fostering development in leadership, moral courage, and integrity essential to such service. They lead our academic programs, oversee the curriculum, and share in the governance of the institution. They are accomplished scholars who are actively engaged in research and other activities that advance their disciplines' bodies of knowledge and provide valuable intellectual expertise to our Army and the nation. They are responsible for mentoring and developing junior faculty both academically and professionally.

Junior Faculty

The junior faculty is the largest group of faculty members at USMA. The junior military faculty is largely comprised of active duty captains and majors who usually teach at USMA for three years as a broadening opportunity. The goal of these assignments is to provide junior officers with exposure to different environments to gain new perspectives and to grapple with complex problems. These junior rotators arrive to West Point having just completed advanced degrees in their respective fields and will move back out to the operational Army following their tour here. Junior civilian faculty members come to USMA early in their academic careers after earning a PhD or equivalent training in their respective fields. Because they are usually fresh out of graduate school, the junior faculty are imbued with the latest pedagogical practices and cutting-edge research. Given their recent field experiences in the operational Army, our junior rotating military officers are particularly important role models and mentors for the cadets. Our junior civilian faculty also serve as key role models, providing depth of discipline and real world experience in the classroom. Some of the most lasting bonds that we see at USMA form among our junior faculty. Rotating military faculty often act as guides for new civilians as they experience military culture for the first time. Civilian faculty, usually fresh from earning their PhDs, are vital resources for junior military faculty who seek mentorship on research, teaching, and navigating the world of academia.

We often refer to our junior faculty as USMA's "second graduating class." During their time here, this group develops additional skills, knowledge, and experience that empowers their continued service in the Army and in the academic community. Aided by continual mentorship from senior faculty, our goal is for the junior faculty to use their graduate education and experiences teaching at USMA to grow into the next generation of senior leaders for the Army, for higher education, and for the nation.

Accessible Faculty

The emphasis on cadet mentorship is one of the defining characteristics of the USMA faculty. These professional mentoring relationships begin in the classroom. We maintain small class sizes and have a low student-to-instructor ratio. Small classes facilitate an engaging formal learning environment filled with dynamic discussions, small group work, and in-person visits to meet with and observe key leaders in a given field. The low student-to-instructor ratio also provides faculty members the bandwidth to forge meaningful relationships with cadets in their classes and to meet with cadets for additional help as needed.

Interactions between faculty and cadets are not confined to the classroom. All USMA faculty are encouraged to become involved in other aspects of the cadet experience. A visitor to USMA will see faculty conversing with cadets in individualized instruction, visiting team practices, mentoring our highly competitive NCAA and club athletic teams, as well as providing leadership to our student interest clubs. USMA faculty also contribute to the holistic development of cadets when they host cadets in their homes as sponsor families and role models, providing an understanding of life in an Army family. In partnership with USMA's tactical officers and coaches, faculty members provide cadets diverse forms of focused mentorship.

Faculty Development and Mentorship



As reflected in the strategic plan for the Dean's directorate (Appendix 1), the development of our faculty is a necessity as we build the strongest team possible to educate, inspire, and train leaders of character. There are opportunities and expectations for growth for all levels and types of faculty members based on their talents, aspirations, and roles. For example, new faculty are welcomed to the Academy with intensive teaching

workshops designed and delivered by academic departments. The Center for Faculty Excellence offers the Master Teacher Program, which builds teaching skills and cross-disciplinary relationships throughout the faculty. Faculty should take advantage of opportunities for development throughout their time at USMA and consider what best suits their individual talents and interests. Some possibilities may include: outside fellowships, research collaborations within and across departments, sabbaticals, operational experiences, Academy governance, conference participation, and the like.

All of these developmental activities reinforce one another as we continue to grow as scholars in our disciplines. The process of teaching often inspires ideas worthy of further investigation. Diving into research allows us to bring fresh perspectives back into the classroom and motivates subsequent teaching. Throughout this process, we also rely on and encourage our faculty to mentor one another. It is often these hallway conversations and discussions over lunch that have the most lasting impact and generate interesting research projects.

Academic Staff

The academic staff serve alongside our faculty and are dedicated to providing foundational and enriching academic experiences. From classroom and laboratory support to the provision of core academic and administrative services, our mission could not be completed without our staff's commitment to excellence and professionalism. Because many members of the academic staff serve at USMA in extended appointments or permanent civilian positions, they are critical to the stability and continuity of our academic operations. The academic staff partner with our faculty as valued team members who help ensure the success of the Academic Program.

THE CADETS

The United States Corps of Cadets brings together a diverse set of young men and women from all over the world united in their desire to be the Army's next generation of leaders. Admission to USMA is highly selective, drawing from an extremely talented pool of applicants who likely had many options for their higher education. Our cadets chose a path that is quite



unique. Our cadets tend to be confident, focused, and hard-working. They are motivated by our faculty, by each other, and by the ideals of service to the nation. They believe they can make the world a better place and are willing to make personal sacrifices to achieve that end.

West Point Leader Development System Outcomes

- Live honorably and build trust.
- Demonstrate intellectual, military, and physical competence.
- Develop, lead, and inspire.
- Think critically and creatively.
- Make sound and timely decisions.
- Communicate and interact effectively.
- Seek balance, be resilient, and demonstrate a strong and winning spirit.
- Pursue excellence and continue to grow.

The diversity of the Corps is a strength.

Cadets come to USMA for a variety of reasons and have vastly different experiences from which to draw as they set out together on their 47-month journey.

Some cadets graduated from high schools with thousands of students, while others were homeschooled. Some grew up in urban environments, while others have never visited a large city. Some were raised in relative comfort, while others faced issues of housing and food security.

Despite these differences, our cadets have arrived at the same place, USMA. They

have exhibited a desire to serve something larger than themselves, a drive to be challenged, and a commitment to become leaders of character in the United States Army.

The USMA classroom experience reflects the diversity of the Corps of Cadets. Faculty must harness the opportunities afforded from these different skills and backgrounds. Faculty will encounter cadets at various stages of intellectual, emotional, and character development. Our focus on teaching individual cadets in small settings allows us to understand their personal level of development and to help cadets realize their own potential.

ACADEMIC PROGRAM GOALS

Our faculty come from a range of experiences and study an array of disciplines and our cadets are more diverse across a range of characteristics than ever before. The Academic Program brings together this variety of talent to educate, train, and inspire the next generation of Army leaders. We developed and are guided by the Academic Program Goals (APGs), which focus on specific knowledge, skills, and attributes that we expect cadets to possess at the time of

graduation. The APGs are rally points that help synergize our broad array of academic offerings. As a result, the cumulative USMA experience is far greater than a collection of disjointed learning opportunities. The APGs provide concrete guideposts for curriculum design and instructional execution, helping our faculty prioritize when resources are constrained. They lay the foundation for continuous improvement of our curriculum and pedagogy and push us to remain focused on producing the best graduates possible for service to the Army and the nation. These goals guided the Class of 2019

Academic Program Goals (APGs)

- 1. Graduates communicate effectively with all audiences.
- 2. Graduates think critically and creatively.
- 3. Graduates demonstrate the capability and desire to pursue progressive and continued intellectual development.
- 4. Graduates recognize the ethical issues and apply ethical perspectives and concepts in decision-making.
- Graduates apply science, technology, engineering, and mathematics concepts and processes to solve complex problems.
- 6. Graduates apply concepts from the humanities and social sciences to understand and analyze the human condition.
- Graduates integrate and apply knowledge and methodological approaches gained through in-depth study of an academic discipline.

Overarching Goal: Graduates integrate knowledge and skills from a variety of disciplines to anticipate and respond appropriately to opportunities and challenges in a changing world.

curriculum revision and are stewarded by departments, programs, and interdisciplinary goal teams.

Each of the seven goals is accompanied by supporting objectives called "What Graduates Can Do" (WGCD) statements. WGCD statements define specific indicators of skills expected of cadets at the time of graduation. Our APGs also directly reflect upon, connect with, and contribute to achievement of the institutional outcomes defined within the West Point Leader Development System (WPLDS).

Goal One: Communication

Graduates communicate effectively with all audiences.

Listening, reading, speaking, and writing with a clear purpose and intent constitute critical communication skills required of Army officers to accomplish missions across a spectrum of twenty-first century operations. Graduates must also possess cross-cultural communication skills. Learning how to speak and write in foreign languages enables effective communication with diverse audiences in operational environments around the world. Given the evolving landscape, graduates must also be proficient in various media platforms.

What Graduates Can Do

- Listen actively, read critically, and develop an informed understanding of the communications of others.
- 2. Speak and write using Standard American English.
- Effectively convey meaningful information to diverse audiences using appropriate forms and media.
- 4. Communicate in a foreign language.
- 5. Use sound logic and relevant evidence to make convincing arguments.

Goal Two: Critical Thinking and Creativity Graduates think critically and creatively.

What Graduates Can Do

- Identify the essential aspects of a situation and ask relevant questions.
- 2. Integrate knowledge and skills from a variety of disciplines.
- Make meaningful connections and distinctions among diverse experiences and concepts.
- 4. Reason both quantitatively and qualitatively.
- Think innovatively and accept risk to pursue solutions in the face of ambiguity.
- 6. Value reflection and creativity; envision possibilities.

As critical thinkers, graduates determine the credibility and utility of ideas and information. Their discernment sets the stage for appropriate, effective, and innovative responses to complex issues. As creative thinkers, graduates draw on extant knowledge and social norms without being constrained by these conventions.

Goal Three: Lifelong Learning

Graduates demonstrate the capability and desire to pursue progressive and continued intellectual development.

Graduates understand that success as an officer is dependent upon taking personal responsibility for acquiring the necessary knowledge and skills needed to excel in an ever-changing and dynamic operational environment. The USMA experience is not an end in itself, but rather a foundation upon which graduates must build.

What Graduates Can Do

- 1. Demonstrate the willingness and ability to learn independently.
- Engage successfully in deliberate selfdirected and collaborative learning experiences.
- 3. Pursue self-awareness and embrace the responsibility for personal intellectual development.
- 4. Pursue knowledge in areas of personal or professional interest.

Goal Four: Ethical Reasoning

Graduates recognize the ethical issues and apply ethical perspectives and concepts in decision-making.

What Graduates Can Do

- Understand the intellectual foundations of ethical principles.
- Recognize ethical components of problems and situations.
- Examine and evaluate different ethical perspectives, principles, and concepts in context.
- 4. Apply ethical perspectives and concepts in solving complex problems, including those found in military settings.

Graduates must recognize the moral and ethical implications of their decisions and successfully engage the ethical components of problems and situations. When confronted with an ethical dilemma, graduates leverage broad historical, cultural, and legal perspectives to make the right decision.

Goal Five: Science, Technology, Engineering, and Math

Graduates apply science, technology, engineering, and mathematics concepts and processes to solve complex problems.

Applications of the science, technology, engineering, mathematics (STEM) disciplines are pervasive in the modern Army. Properly employed, technology is an effective force multiplier that creates opportunities to improve situational awareness, shorten decision cycles, secure communications, enhance the effectiveness of weapon systems, and improve survivability. Technology also creates challenges as adversaries seek to exploit potential weaknesses and vulnerabilities. Graduates use scientific and mathematical literacy to anticipate opportunities and challenges associated with changing technologies, and employ the systematic engineering design process to develop appropriate responses in the context of

What Graduates Can Do

- Apply mathematics, science, and computing to model devices, systems, processes, or behaviors.
- 2. Apply the scientific method.
- 3. Collect and analyze data in support of decision making.
- Apply an engineering design process to create effective and adaptable solutions.
- Explain and apply computing and information technology concepts and practices in the context of the cyber domain.

technological, economic, cultural, political, social, and ethical constraints.

Goal Six: Humanities and Social Sciences

Graduates apply concepts from the humanities and social sciences to understand and analyze the human condition.

What Graduates Can Do

- Understand, analyze, and know how to influence human behavior.
- 2. Analyze the history, diversity, complexity, and interaction of cultures.
- 3. Analyze political, legal, military, and economic influences on social systems.
- 4. Engage in and reflect on cross cultural experiences.
- Integrate the methodologies of the humanities and social sciences in decisionmaking.

USMA graduates effectively interact with and lead people in a variety of contexts.

Graduates comprehend the human condition of diverse peoples and organizations, at home and abroad, and create relevant tools to define, shape, and solve complex problems of the modern world. USMA prepares future Army officers to reflect upon and learn from experiences, and to develop deeper cross-cultural competence.

Goal Seven: Disciplinary Depth

 $\label{lem:Graduates} \textbf{Graduates integrate and apply knowledge and methodological approaches gained through}$

in-depth study of an academic discipline.

Academic majors complement USMA's broad core curriculum, synthesizing and building on the core courses in the context of a chosen discipline that is aligned with the interests and life-long educational goals of each cadet.

Drawing on a wide range of specialties, graduates contribute intellectual diversity to the Army and make substantive contributions to multi-disciplinary teams.

What Graduates Can Do

- Apply disciplinary tools, methods of inquiry, and theoretical approaches.
- Identify and explain representative questions and arguments of their chosen disciplines.
- 3. Recognize limits of a discipline as well as areas in which it contributes to intellectual inquiry and problem solving.
- 4. Synthesize knowledge and concepts from across their chosen disciplines.
- 5. Contribute disciplinary knowledge and skills as a part of a collaborative effort engaging challenges that span multiple disciplines.

Overarching Academic Goal

Graduates integrate knowledge and skills from a variety of disciplines to anticipate and respond appropriately to opportunities and challenges in a changing world.

The Overarching Academic Goal encapsulates the intent of the Academic Program by focusing on two behaviors essential to the successful Army officer—the ability to anticipate and the ability to respond. Both behaviors require a wide variety of knowledge and skills. Importantly, though, they also require intentional integration and synthesis of the knowledge and skills acquired through the curriculum. We cannot expect an individual to fully possess these abilities without specific education and training on other skills, including perceiving new ideas and trends, imagining possible outcomes, and following through with an action plan. Developing anticipation and response behaviors in a wide variety of contexts and in fluid and changing circumstances cannot be left to serendipity; rather, many components of the Academic Program must contribute in their own ways to achieve this overarching academic goal.

THE ACADEMIC CURRICULUM

At the United States Military Academy, the term "curriculum" encompasses more than traditional academics. The 47-month experience includes military, physical, and character development through required and voluntary courses, extracurricular activities, and other events. Every interaction with faculty, staff, tactical (TAC) teams, coaches, and other mentors helps to model and reinforce the roles and relationships, norms and standards, and responsibilities and obligations that we expect from a future Army officer. From this institutional perspective, every interaction is a leader development event to build leaders of character. Moving beyond this holistic approach to focus on the academic pillar, the academic curriculum consists of 40 academic courses, including the core curriculum and 13 courses for a selected major, required to earn an undergraduate degree.

A Common Foundation: A Broad Liberal Education

The core curriculum is the hallmark of the academic curriculum and is central to the Academic Program. Spanning science, math, engineering, language, the humanities, and the social sciences, the core courses, in conjunction with the academic major, constitute the necessary elements of a liberal education. This suite of courses seeks to provide a broad foundation that teaches cadets how to think about problems in varied and adaptive ways as they learn to navigate and succeed in an increasingly complex world.

The academic core curriculum usually consists of 24-27 courses (depending on the major) selected to collectively broaden and build a cadet's repertoire of disciplinary perspectives to better engage with the world. A core course introduces students to disciplinary content and to each discipline's methods of inquiry. The core curriculum provides cadets with various ways of thinking and highlights myriad ways to interpret phenomena and approach problems. This breadth encourages cadets to make informed judgments on an argument's validity and to distinguish that evaluation from opinion.

Although most core courses are required as a common broadening experience, cadets have some options from which to choose (limited by course availability) in science, language, and engineering:

• In **science**, cadets build upon introductory courses in Physics and Chemistry with a higher-level course of their choice that extends application of the scientific method and emphasizes scientific writing.

- To fulfill the two-course language requirement, cadets choose among eight languages. Cadets rank their preferences and are assigned to their courses based on their preference, aptitude in the language, and course availability.
- For the core **engineering** three-course sequence for non-engineering majors, cadets specify their preferences among six engineering sequences and are placed based on their preferences and availability.

The Major

A focus on disciplinary depth in a chosen area complements the strong foundation laid by the core curriculum. Cadets select and complete at least one academic major with a minimum of 13 courses. In general, an academic major at USMA is comprised of three parts. The study-in-depth component is the foundation for the major and consists of a minimum of nine courses. Some of



these courses may be required of all majors while others are electives based on cadet interest. The second part of every major is a collection of three Complementary Support Courses (CSCs). CSCs can offer disciplinary depth, complementary perspectives, intellectual exploration, and other opportunities depending on the major and individual cadet. An integrative experience is the final piece of each major. The integrative experience consists of one or more courses designed to synthesize knowledge and skills developed throughout the core and major programs.

The Minor

Many cadets who wish to pursue their studies beyond a single academic major opt to complete a minor in another field. A minor consists of a minimum of five academic courses of 3.0 credit hours or higher as determined by the program. To pursue both a major and a minor, a cadet must meet all curricular requirements for programs.

Integrative Curricular Components (ICCs)

The core curriculum provides disciplinary breadth and the majors provide disciplinary depth, but there are other themes that bind the Academic Program and intellectual pursuits that bridge various courses. Integrative curricular components are explicit efforts to highlight certain linkages across disciplines. A sequence is a series of specific courses designed around a disciplinary topic, while a thread follows a broad subject across many disciplines. Sequences and threads foster integrative connections across core courses and bring together knowledge and skills from multiple disciplines.

- Core engineering sequences: Non-engineering majors complete a three-course core engineering sequence that complements their academic major and interests. Cadets choose among Cyber Engineering, Electrical Engineering, Environmental Engineering, Infrastructure Engineering, Nuclear Engineering, and Systems Engineering sequences.
- Region-Culture Thread: The region-culture thread orients cadets to different perspectives as lenses to interpret the meaning and effects of culture in various contexts.
- Gender, Sexuality, and Respect (GSR) Thread: The GSR thread leverages natural
 opportunities in several academic courses to explicitly develop broader perspectives,
 build empathy, and improve the ability to lead diverse organizations.
- West Point Writing Program: The West Point Writing Program works across the curriculum to help cadets improve composition in and across the disciplines, critical thinking, academic argument, writing pedagogy, and professional communication.
- MX400 Officership Course: Through MX400 cadets integrate and synthesize much of what they learned during their time at USMA as they explore professional issues and security challenges in a rigorous, intellectual environment. The culminating experience is the Integrative Challenge, which drives cadets to think critically, draw upon and examine their internalized character, and work with others to address a realistic, complex problem in a military scenario.

Projects Day

Projects Day is one of the highlights of the academic year at USMA. The academic community comes together with external sponsors, donors, and graduates to celebrate academic accomplishments. At locations around the Academy, cadets from all departments and majors share their academic work with the broader community. Myriad forms of scholarly expression are represented as cadets offer demonstrations of integrative experiences, artistic performances, thesis defenses, presentations of independent research, and results (or predemonstrations) of external academic competitions. Some of this work is presented through poster presentations, others through performances, others as answering examiners/panelist questions, still others are orations, or presentations of papers. The genesis of these projects varies with many ideas initiated by cadets based on their coursework, study and travel abroad experiences, and enrichment activities, some commissioned by outside agencies, and others inspired by ongoing faculty research.

ENRICHING THE CURRICULUM

Cadets have many opportunities to augment their academic work with enrichment experiences. We also provide an array of support services to help cadets reach their potential. All of these programs and experiences help cadets engage with the world and scholarship in new ways, building and inspiring lifelong learning.

Academic Centers

Many academic departments house specialized research and outreach centers that provide significant enrichment opportunities for cadets and faculty across the curriculum. Cadets can learn and practice their discipline in real-world research environments that provide opportunities for them to solve contemporary problems. These centers connect outside organizations across the Army, Department of Defense, and the corporate world to our faculty and cadets and support innovative research, development, and engagement, allowing us to contribute intellectual capital to the Army and the nation.

USMA Library

The United States Military Academy Library embraces and advances scholarship, research, and excellence through information service in an increasingly digital world. Services are designed to support all aspects of undergraduate

Research Centers and Partnered Research Centers

- Combating Terrorism Center
- Center for Environmental and Geographical Science
- Center for the Advancement of Leader Development
 & Organizational Learning
- Center for Holocaust and Genocide Studies
- Center for Innovation and Engineering
- Center for Languages, Cultures, and Regional Studies
- Center for Leadership and Diversity in STEM
- Center for Molecular Science
- Center for Nation Reconstruction and Capacity Development
- Center for Oral History
- Center for the Study of Civil-Military Operations
- Cyber Research Center
- Mathematical Sciences Center
- Network Science Center
- Nuclear Science and Engineering Research Center
- Operations Research Center
- Photonics Research Center
- US Army Space and Missile Defense Command Research and Analysis Center
- West Point Center for the Rule of Law
- West Point Leadership Center
- West Point Simulation Center

research and to integrate information literacy skills and training into courses throughout the curriculum. The special collections and archives are particularly noteworthy in terms of academic enrichment. These primary sources focus on both the history of USMA and our graduates and provide rich opportunities for cadets to build research skills.

Center for Enhanced Performance (CEP)

The Center for Enhanced Performance is USMA's comprehensive student assistance center. CEP provides all cadets with a variety of individual services and group programs designed to help cadets reach their potential. The CEP helps cadets develop across USMA's pillars – academic, physical, military, and character – through targeted education and training on specific strategies and skills that underlie elite human performance.

Mounger Writing Center (MWC)

The MWC sponsors one-on-one consultations, group workshops, and special events for all cadets working on writing and communications projects for any academic course, personal interest, or professional opportunity. The conversations that occur in the MWC are designed to help writers express themselves clearly, forcefully, and effectively.

First Year and Beyond (FYB)

The FYB program assists select cadets who are having difficulty adapting to the rigors of the Academic Program. Cadets are identified as potential candidates for FYB based on early performance in their first term and are offered the opportunity to participate in the program. Those who participate drop one course (to be made up during a summer term) and are assigned an Academic Excellence Program instructor who coordinates support across the Academy, to include current instructors, TAC officers, and coaches. In addition to the immediate relief and assistance provided during the first term, FYB helps cadets develop as self-directed learners by continuing to provide educational support as they move beyond their initial academic term.

Study Abroad Program (SAP)

The purpose of the SAP is to provide an authentic culture and language immersion opportunity for qualified cadets. The SAP seeks to develop increased cross-cultural competence, foreign language proficiency, and knowledge of the regional dynamics in close to 20 different countries. Cadets are selected for a specific program of study for one semester at select foreign institutions, which are a combination of military academies and civilian universities.

Academic Individual Advanced Development (AIAD) Opportunities

AIADs provide cadets with diverse travel and scholarship offerings that are not available in the formal course structure. These academic immersions allow cadets to experience the intersection of theory and practice in domestic and international settings. There are five general categories of AIADs: Academic Study/Depth in Major, Language and Cultural

Immersion, Leadership and Service, Research, and Support to the Army. Most AIADs occur during the summer.

Academic Clubs

Among the myriad clubs available to cadets, 47 are considered academically oriented. From the Astronomy Club and Jazz Forum to the Electronics Experimenters Group and Investment Forum, there are ample opportunities for cadets and faculty to get involved in an old hobby or to learn something new.

Conferences

The Student Conference on US Affairs (SCUSA), McDonald Cadet Leadership Conference, Model United Nations, and the West Point Negotiation Workshop are examples of national academic conferences held annually at USMA. Cadets design and lead these major academic events to foster engagement with the broader higher education and practitioner communities.

Post-Graduate Scholarships

Cadets are encouraged to compete for nationally-recognized scholarships and fellowships that provide them opportunities to pursue academic studies

Selected Academic Clubs

- Amateur Radio
- American Institute of Chemical Engineers
- American Society for Engineering Management
- Astronomy
- Behavioral Science and Leadership Seminar
- Cadet Competitive Cyber Team
- Civil and Military Engineering Club
- Creative Writing Forum
- Debate Council and Forum
- Electronics Experimenters Group
- Engineers & Scientists for a Sustainable World
- Film Forum
- Foreign Language and Culture (Arabic, Chinese, French, German, Polish, Portuguese, Russian, Spanish Forums)
- Gamma Theta Upsilon
- Investment Forum
- Jazz Forum
- Mathematics Forum
- Mechanical Engineering Club
- Model Arab League
- Model UN
- Nuclear Engineering Club
- Opera Forum
- Student Conference on US Affairs
- Studio Arts Forum
- Systems Club
- Wargames Committee

after graduation. A wide variety of scholarships and fellowships are available and range from those focused on Science, Technology, Engineering, and Mathematics (STEM) disciplines to opportunities that provide immersion in another culture to those that send graduates to medical school. Multiple programs and activities across the Academic Program support cadets looking to pursue these opportunities. Cadets have won a variety of scholarships and fellowships in recent years, including Draper Labs, Fulbright, GEM, Lincoln Labs, Marshall, National Science Foundation, Rhodes, Rotary, Schwarzman, and Yenching.

Thayer Honors Program (THP)

THP provides cadets with a foundation of experiences that prepares them to tackle the nation's most complex challenges. Cadets that apply and are selected for the program are offered opportunities to pursue scholarly depth through, for example, advanced sections of core courses, guest speakers, research pursuits, and interdisciplinary experiences. THP cadets form a learning community as they help foster intellectual growth and curiosity in each other. Faculty members help nurture this learning community through service as THP mentors and facilitators.

Honor Societies

USMA offers exceptional cadets the opportunity to participate in 18 different national and international honor societies associated with either general academic excellence or excellence in their discipline.

EDUCATING AND INSPIRING

CADETS

Bringing the curriculum to life requires knowledgeable and committed faculty. While institutional and academic frameworks provide opportunities for an academic program to thrive, success depends upon the intentional cadet-faculty interactions that occur on a daily basis. Whether in one-on-one settings, small groups, or classroom experiences, the passions of our faculty for their teaching and for their disciplines are essential to ensuring success in our mission to educate future Army leaders.

Faculty prepare the minds of cadets to engage with the world as Army officers in ways that are consistent with disciplinary perspectives, institutional goals, and Army values. As such, the faculty have two main and interdependent roles: an institutional role and a disciplinary role. Institutionally, every faculty member has a responsibility to be a role model and mentor or coach who guides cadets through opportunities for learning in and out of the classroom. Additionally, faculty are integral to cadets learning an academic discipline. Disciplinary knowledge is not just a set of facts to be memorized but a perspective or way of thinking that is added to a cadet's repertoire, building capacity for interpreting and acting in a complex and ever-changing environment. The most beneficial experiences foster integration across disciplines because they broaden and deepen perspectives and reinforce the interconnectedness in our world.

Laying the Foundation: Teaching, Learning, and Development

Some say that teaching is a performance art, but there is a science to it as well. Teaching is an intentional act that should be rooted in contemporary understandings of learning and knowledge acquisition. Throughout its history, USMA has developed and retained powerful teaching methods, most notably the Thayer Method (see adjacent box for more on Thayer's contributions). Recent advances in our understanding of how individuals grow and develop over a lifetime must also inform how we prepare and deliver content. As our understanding of pedagogy evolves and we embrace and experiment with new pedagogical techniques, we should not lose sight of our historical focus on small classes, close faculty interaction, and sharp attention to cadet learning.

Thayer's Revolutionary Method

In a letter to President James Monroe dated 1828, then-Superintendent Sylvanus Thayer described a teaching method employed at USMA and inspired by his observations at the École Polytechnique while on an extensive tour of European universities. According to Thayer, large classes were lectured by a Professor and subsequently divided into sections of 20 or fewer cadets where each cadet "should demonstrate a proposition or explain an investigation at the Black-board and be interrogated to see that he thoroughly understands the principles." These smaller sections were run by assistant professors or upper-class cadets, with the Professor as overseer, visiting each section in turn. Each cadet was expected to demonstrate mastery of material, which included a high degree of recitation of memorized material as well as demonstration of "a proposition or explain an investigation...and be interrogated to see that he thoroughly understands the principles." His insistence that cadets progress to new levels of material only after they had mastered the previous levels predated the now common method of mastery learning, and created a rigorous learning environment for classes of cadets that varied widely in their preparation for higher education studies. Cadets were graded on nearly every lesson, and seated according to their level of performance, thus emphasizing the importance of performance and raising the level of academic rigor and expectations.

Sylvanus Thayer is credited with turning the Military Academy into a rigorous educational institution through his teaching method, formal academic curriculum, military experiences, character development, and discipline structure, known collectively as the Thayer System.

Some of the hallmarks of this Thayer Method of teaching- small classes, cadet preparation prior to class, minimal lecturing, and cadet briefings and board work - have endured to the present, with many departmental variations reflecting disciplinary differences and advances in higher education practices. For example, higher educational professionals have shown that mastery of material includes higher levels of cognitive functioning such as analysis, synthesis, and evaluation rather than memorization. In adapting the Thayer Method to these widely-accepted practices, the daily recitations of extensive memorized material has evolved into application of concepts to real life situations. Current higher education practices also recognize the value of students actively working with course material rather than passively attending lectures as the sole instructional strategy, thus validating Thayer's focus on cadet in-class demonstrations of mastery.

As his legacy continues to inspire the structure and methods for educating leaders at USMA, we recognize that tradition alone is insufficient justification for continued practices that may not be as effective or relevant today. Nothing exemplifies this more than the movement over the years from the completely proscribed engineering curriculum of the Thayer System to our current broad liberal education required to prepare the minds of cadets to engage with a complex and ever-changing world.

Developing Meaningful Disciplinary Knowledge

Disciplinary knowledge generally falls into one of two categories. The first type is "knowing that." This declarative knowledge includes facts, steps, formulas, processes, or definitions. This knowledge tends to be task and memory-based and can be recalled and reproduced. We can

think of this as "the basics" of any discipline. However, knowing these basics is not enough to grapple with the ambiguity inherent in any field. Teachers must also provide opportunities to instill understanding of the material, or "knowing how." We seek to achieve understanding by asking and addressing a litany of questions for any act: How do we do x? When? Where? With whom? With what



purpose? With what outcome? And most importantly, Why? "Knowing how" provides depth of meaning for the basics of a given field. Acquiring both types of knowledge, "knowing that" and "knowing how," is critical to learning a discipline and to learning from that discipline.

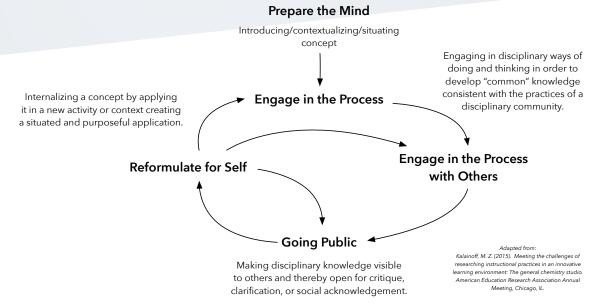
A Developmental Model for Teaching and Learning

The process of getting from "knowing that" to "knowing how" can be conceptualized in a developmental model that provides one perspective for understanding teaching and learning. ("Developing Leaders of Character" provides another, broader model of teaching and learning.) This model acknowledges that teaching and learning are different than developing. The difference is evident in the way that we use these words in common language: we learn to tie a necktie, to hit a golf ball, to charge a car battery, and to cook spaghetti. The object of learning is a process or skill that is finite and bounded. This is distinctly different than the context in which we use the word "develop." We develop character, a clothing style, a love of music, and an ability to distinguish fine wines.

Development encompasses many iterative and recursive learning cycles in which, over time, the learned processes and skills take on a comprehensive and integrated meaning.

The figure below depicts four generalized interdependent processes that describe the driving mechanism for this developmental model for teaching and learning: 1) prepare the mind; 2) engage in disciplinary processes independently and with others; 3) make knowledge public; and 4) reformulate and integrate for self.

Learning Model as a Process of Interdependent Processes



- 1. Prepare the mind. The process of introducing new content is important. Instructors should offer context to help prepare the minds of those about to receive the information. This encourages learners to integrate new information within existing conceptual frames. There are many ways to prepare the minds of students. For example, instructors can publicize content in syllabi, mention upcoming themes in preceding lessons, explicitly reference past content linkages, or pose a puzzle that creates recognition of the need for a concept or an idea. Learners also prepare their own minds by reviewing lesson outlines, completing before-class homework, and reading subject-specific texts.
- 2. Engage in disciplinary processes independently and with others. Learners must be exposed to and engaged in ways of doing and thinking to develop "common" knowledge consistent with the practices of the disciplinary community. This can include diving into texts and using artifacts of the discipline on their own as well as with peers and instructors. Interaction with the content, the processes, and the people involved in the discipline is vital to development.
- 3. Make knowledge public. It is essential that learners have opportunities to discuss their knowledge and understanding of the discipline so that it may be accepted, rejected, or modified by the community. This process can take many different forms but most often occurs when instructors ask questions of learners in a classroom setting. Learners must formulate ideas to provide a response, and these ideas may be accepted, rejected, or modified by the instructor or other students. Working in learning teams or small groups enables learners to construct knowledge together and allows multiple students opportunities to make their knowledge public. Team members can challenge current thought, expose misconceptions, help to understand the material in the context of the discipline, and develop "common"

knowledge. Furthermore, peers are in a good position to challenge each other within a shared developmental range, and this process shows students that they can and should learn from each other. Students can also make knowledge public to themselves. Often, students may believe that they fully understand a concept but then fumble when explaining it to others or try to use it in a different context.

4. Reformulate and integrate for self. Reformulating is internalizing a concept by applying it in a new activity or context. It is not just reproducing knowledge. It develops capabilities across multiple situations and in concert with knowledge from disparate areas. Reformulating and integrating for self helps expand a learner's repertoire in how they interpret and respond to the world.

This conceptual model helps us understand why we teach the way we do and should motivate the creation of new instructional designs or modification of existing ones. It does not direct specific methods of instruction. Our responsibility is to design and construct the best possible opportunities for learning. The best instructors will adjust in real-time to ensure that the right environment is present based upon direct observations of or feedback from learners. It is, however, the full responsibility of cadets to take up the opportunities for learning and, in fact, learn.

A common method for shaping the environment for learning is to purposefully challenge ways of thinking. Struggling is an essential part of learning and should be accepted, even embraced, in any learning environment. In other words, instructors often deliberately place learners in situations where the conceptual model of students clashes with what they observe or are trying to influence. Developmental change occurs as students struggle to build conceptual frameworks that appropriately interpret and address a particular problem. Learners must be afforded the opportunity and time necessary to reconcile their understandings with what they observe.

CONTINUAL IMPROVEMENT

From our classroom faculty to all levels of our academic leadership, assessment is part of our basic responsibility to ensure we deliver the best education we can. The most effective assessment system is based on input from faculty who are in the classroom, delivering

instruction and observing cadet demonstrations of achievement. The foundation of continual improvement in our Academic Program starts with proactive planning that results in quality assessment in each course and major program.

Instructors are the most important part of this process. The instructor's knowledge and understanding of cadet performance in the



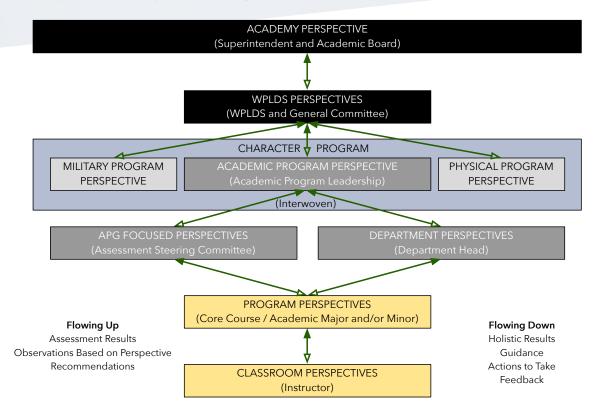
classroom feed higher levels of curriculum oversight enabling reflection and responsive curricular improvement at all levels. This is assessment. It is a systematic process of:

- examining evidence relative to achievement of cadet learning goals (e.g., course objectives, program-level student learning outcomes, WGCD statements, APGs, or WPLDS outcomes);
- engaging in conversations and reflection about that evidence to identify strengths and areas for improvement;
- formulating recommended actions to improve pedagogy, material covered, the goals themselves, or the assessment process;
- deciding which recommendations to implement and assigning responsibility where appropriate; and eventually
- assessing again to measure the impact of the actions relative to goal achievement.

Successful assessment and continual improvement is meaningful and sustainable. Our goal is to derive actionable inputs that will drive us to improve. This process should not be onerous. Actionable assessment measures should become natural outgrowths of how we construct and reflect on our courses.

Our layered assessment system seeks improvement at the instructor level, the course level, the program level, the department level, the Academic Program level, and at the Academy level. (See the figure below.) Stakeholders throughout focus on their own perspective while

connecting to others across their departments, the Academic Program, and the Academy. The following sections briefly describe this process at each level.



Role of Classroom Instructors

Individual classroom faculty have all the responsibilities associated with teaching their assigned course consistent with the guidance given to them by their core course or academic major program director. Faculty set lesson objectives based on course goals, design classroom activities towards achievement of those objectives, adapt the classroom experiences even in the middle of a lesson based on how well the cadets respond, and adjust the next course-related activities as they see fit to improve overall cadet learning in the course. Cadets demonstrate their level of achievement of the course objectives through graded and ungraded events, and the instructor evaluates their products accordingly.

To improve teaching, the instructor uses (1) the perspective gained through interactions with cadets, both in the classroom and through AI, (2) class performance on graded events (e.g., statistics or pass rate), and (3) other evidence gained from, for example, cadet feedback and observations from classroom visitors.

The instructor contributes to core course or academic major assessment not only by providing grades on individual events, but also by participating in program level faculty discussions. They may also periodically provide collected evidence (e.g., cadet products) to their program director for assessment of the program or of the APGs. This feedback and conversation

among instructors and program directors about what works and what does not is vital to improvement.

Role of Core Course and Major Directors

Directors of each core course and of each academic major are responsible for leading the design, implementation, and assessment of curriculum. Throughout the semester, directors interact with each of their instructors about their courses and programs, figuring out what works and what does not. They hold meetings during which faculty share their reflections and challenges based on what they see in the classroom. Directors conduct end of semester reviews (akin to afteraction-reviews) that formulate recommendations for future changes to their curriculum, learning activities, and pedagogy.

This continual process allows directors to gain broad insight on cadet abilities, seeing their strengths and areas of needed improvement. Directors use (1) the perspective they gain through interactions with their faculty, (2) direct evidence of cadet performance through targeted embedded indicators, and (3) other indirect evidence gained from, for example, external visitors and cadet surveys to assess how well their cadet population achieves the goals the directors established for their respective course or major. In consultation with their Department Heads, directors use those

The Relationship between Grades and Assessment

"I give my students grades. That is evidence of their achievement. Why do we need to collect other assessment data?" This common comment from a faculty member is understandable. Grades have a long history of providing evidence of faculty evaluation of student achievement, and do represent how individual students perform. But in the context of assessment, grades alone do not typically provide evidence that allows specific curricular decisions to be made based on the results of student learning outcome assessment. Grades represent subjective evaluation of multiple aspects of a course and an individual's predisposition toward a course and his or her external environment.

Assessment, to be meaningful, needs a collection of evidence that allows judgments to be made regarding the achievement of specific student outcomes. When the evidence points to a weakness in the achievement of an outcome, it should also inform the stakeholders where action can be taken to strengthen the outcome. Grades give a general sense of the faculty member's evaluation, but what can a class average of 74% on a course, final, test, paper or project tell us about how to improve outcome performance? Certainly, a well-crafted product may do just that if the component parts are structured to align with specific outcome measures and grades for the component pieces are presented as the evidence. Grades for the component parts related to the student learning outcomes can then be summarized across students and even courses to provide direct evidence of student achievement of the outcomes. Another method for examining the relevant components of a test given to students or a student project is the use of rubrics as an ancillary tool for assessment of these products, independently or in conjunction with the grading process.

Adapted from Judd, T. & Keith, B. (2012) Student learning outcomes assessment at the program and institutional levels. In Secolsky, C. and Denison, D.B. (Eds.) Handbook on Measurement, Assessment, and Evaluation in Higher Education, New York: Routledge.

assessment results to inform the design and/or implementation of the next offering of the

curriculum. These should be documented in reports that are archived in departments and, when a change in leadership occurs, are passed on to subsequent directors.

Directors encapsulate these results in their annual Executive Summary. For the director, the Executive Summary serves as a snapshot of the course or program in a given year, and taken together with previous Executive Summaries, serves as an historical record of the development and progression of the course or major over time and should be written and used by directors as such. This summary is submitted to the Dean's office for use by goal teams, the Assessment Steering Committee, and the Assessment Mentor Advisory Council. For the Dean's office, the Executive Summary reports on what that course or major's assessment results mean for the Academic Program and its goals (APGs).

Role of Department Heads

Department Heads have primary oversight and responsibility for continual improvement within their departments. They lead their faculty in meaningful efforts to support the Overarching Academic Goal and the APGs. Department Heads also are responsible for guiding the preparation and delivery of Executive Summaries based upon course and program reports. Data drawn from these documents are synthesized by Department Heads. Reflecting on all available evidence, Department Heads, in conference with their faculty, then provide guidance on any actions to improve cadet learning within their departments. As members of the Academic Program leadership, Department Heads also share their synthesized perspectives with the General Committee and Academic Board.

Role of Goal Teams

At the Academic Program level, the assessment structure starts with seven goal teams, each responsible for assessing cadet achievement relative to an assigned APG. The faculty members comprising each goal team are typically core course and/or academic major leaders and are the experts with respect to their APG. They create and revise the standards for their APG and WGCD statements. Each year, each goal team assesses one or two WGCD statements using a variety of evidence, discussion, and deliberation to develop their findings. Each goal team then works with course and program directors to continually reflect and make improvements when necessary.

Each goal team culls and collects evidence from a range of sources, including direct evidence, e.g. Executive Summaries from core course and academic major program directors, as well as materials not drawn directly from cadet products. Indirect evidence is also used to assess our APGs and is collected at the Dean's level. Examples of such instruments include First and Fourth Class Cadet surveys and the Faculty Survey on Cadet Achievement. We also use surveys of graduates, interviews with Army leaders who have had our graduates in their command, and graduate school performance to aid in our assessment efforts. Both direct and

indirect evidence provide perspectives from several viewpoints on cadet performance and help us determine if our graduates can apply their knowledge, skills, and behavior in the field as Army officers. Using all of this evidence, goal teams determine overall achievement of the APGs and WGCD statements. They also reflect on the meaning of their assessment results relative to the WPLDS outcomes associated with that goal. Each goal team presents its assessment results and recommendations to the Assessment Steering Committee. The core course and academic major program directors then use these results as they design and implement subsequent course offerings and program requirements.

Supporting Improvement: The Assessment Mentor Advisory Council

Faculty and program directors are not alone in their assessment efforts. The Assessment Mentor Advisory Council (AMAC) supports a culture of continual improvement by helping faculty at all levels engage in feasible, meaningful, and sustainable assessment processes. They keep abreast of the best assessment practices and methods of research design in higher education and, when appropriate, bring those practices to USMA. They are also responsible for providing advice to core course and academic major program directors and goal team leaders on their assessment efforts through mentorship relationships and AMAC-led workshops. The AMAC also advises Academic Program leaders by evaluating the quality of assessment efforts across the Academic Program and presenting recommendations to foster meaningful assessment that promotes continual improvement of cadet learning. Members of the AMAC include faculty and staff from diverse disciplinary backgrounds who possess experience and expertise in assessing and improving student learning.

Role of the Assessment Steering Committee

The Assessment Steering Committee (ASC) oversees the process of collecting, mapping, and evaluating cadets' achievement of the APGs and their applicability to WPLDS outcomes. The ASC, which includes leaders of each goal team as well as members of the Dean's staff, meets regularly throughout the year to provide annual guidance to the goal teams for their focus activities and to monitor and support assessment activities throughout the Academic Program. The ASC analyzes goal team reports across multiple years and across goals to identify trends and to determine the overall effectiveness of the Academic Program. The ASC also identifies strengths and areas for improvement as well as which issues should be collectively addressed. The ASC prepares an annual executive summary presenting the key findings and recommendations to the Dean. The executive summary facilitates discussion among the Academic Program leadership to enable continual improvement of the Academic Program. Over the course of three years, every APG and WGCD statement is assessed by the ASC and goal teams.

Role of the Academic Program Leadership

The Dean, Vice Dean for Academic Affairs, and Department Heads work together to examine, hear, and reflect on assessment results from the departments and at the ASC and goal team levels. As the caretakers of the academic curriculum, they identify strengths and areas for improvement in cadet learning, consider recommendations, and determine what actions should be taken by the Academic Program and the faculty in respective departments. Department Heads are responsible for taking actions based on recommendations formulated throughout the assessment process and provide feedback about the impact of those actions on APGs. These actions may include refinements to the academic curriculum, teaching practices, or the assessment process itself.

Integrating with the West Point Leader Development System

While this section is focused on the Academic Program's continual improvement, assessment is also ongoing at the institutional level and is led by the WPLDS Assessment Committee. Course and program objective alignment with the APGs and the APG alignment with WPLDS outcomes allows the Academic Program results to contribute to the assessment of the broader WPLDS outcomes. The ASC generates an annual report that addresses



cadet achievement of the APGs and WGCDs and is then shared with appropriate stakeholders to include the WPLDS Assessment Committee. The Academic Program leadership, as part of the General Committee and Academic Board, plays an integral part in the broad WPLDS assessment through reflection across all programs and direction within the Academic Program.

Our Continual Improvement Rhythm

The goal of assessment is reflection and improvement. Course and program directors annually assess cadet achievement of student learning outcomes and produce summary reports of their findings and recommendations for their respective Department Heads. Much of the goodness of assessment occurs at this fundamental level as directors and instructors work together to improve. Faculty should learn from these assessments and use them to innovate and drive change where needed.

Goal teams are also using this information to understand curricular effects across the Academic Program within a specific domain. The ASC takes an even broader look as it aggregates conclusions and recommendations across the entire Academic Program for

presentation to Department Heads and the Dean. An annual Reflection Day, sponsored by the Dean, enables leaders from across the Academic Program to consider the effectiveness of teaching and learning at USMA. The Dean and the Department Heads use all of this evidence to provide appropriate guidance to faculty. The process continues into subsequent years when any changes that were adopted are subject to further assessment.

Characteristics of Meaningful Assessment

The dual pursuits of knowledge and improvement drive assessment. We seek to understand how we develop cadets by determining how well, as a group, they are achieving the APGs and WGCD statements. Over the long-term, we consider and reconsider the effectiveness of APGs and WGCD statements themselves in the context of evidence, relevancy to the broader mission, trends in higher education, advances in disciplines, and appropriateness for the needs of the Army. We must develop these longitudinal assessments to shape and guide development of the Academic Program over time.

Our Academic Program assessment process yields useful information that allows the curriculum to maintain currency and relevance to the Army and higher education. It allows us to measure the Academic Program's outcomes and to respond to inquiries from external agencies including the Department of the Army, the Department of Defense, the United States Congress, the Middle States Commission on Higher Education, and the Accreditation Board for Engineering and Technology. Most importantly, our assessment system fosters a culture of continual improvement as we educate future Army officers.

DEAN'S DIRECTORATE STRATEGIC PLAN: 2017 - 2022

USMA Mission

To educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of Duty, Honor, Country and prepared for a career of professional excellence and service to the Nation as an officer in the United States Army.

Academic Directorate Goals

- 1. Educate, train, and inspire cadets to become commissioned leaders of character
- 2. Develop and advance faculty and staff excellence
- 3. Provide intellectual capital to the Army and the nation
- 4. Provide resources that enable long-term continual improvement

Strategic Environment

Strategic Posture Statement: West Point has for most of its history been engaged in the project of educating, training, and inspiring a homogenous Corps of Cadets. It has graduated classes of Second Lieutenants prepared to execute a largely uniform set of responsibilities in the Army. For many years, the work of the institution was likewise performed by a fairly homogeneous staff and faculty. Today, however, we have an unprecedentedly diverse Corps taught by diverse faculty members who are preparing graduates for an undefined set of roles, responsibilities, and missions. Tomorrow's Army needs a heterogeneous set of officers with a broad array of abilities and perspectives—with deep disciplinary knowledge as well as with the agility and imagination to work across disciplines—to serve in an increasing range of specialties, from traditional branches to the newest, Cyber. How can the Academic Program best meet the challenges and exploit the opportunities of the twenty-first century as West Point approaches its 250th anniversary in 2052?

The above statement, inspired by the work of the Dean's Transition Team in 2016, highlights some of the challenges and opportunities the Directorate faces as West Point approaches its 250th anniversary in 2052. These and other challenges are addressed in greater detail below.

Competition for the most talented applicants is intensifying due to the declining number of high school graduates and the increasing proportion of them who are not well prepared for college. Also, because of discounted tuition at some of the best institutions in the country and

some states offering free tuition, tuition is not an obstacle for as many students as it has been in the past.

While previous generations of graduates had line of sight or at least constant communication with multiple echelons of their chain of command, today's graduates must be prepared to operate independently using only the commander's intent as a guide in an uncertain and complex security environment.

Technology has played a significant role in the lives of cadets, so-called 'digital natives,' much more so than in the lives of the faculty and staff. Because of this, cadets gather, view, and use knowledge much differently than do most members of the faculty and staff. Innovations in communication technologies have vastly expanded the quantity of information available at our fingertips; however, the challenge of discerning quality information and critically evaluating information sources has grown significantly more difficult.

To sustain the benefits of our faculty model, we must bring in faculty members with diverse talent, develop them, and properly employ them. Our recruiting efforts must reach broader audiences, and those who advise potential faculty candidates, such as commanders and graduate school advisors, must understand the value of a West Point faculty assignment and encourage their best officers and graduate students to compete for these positions. Because of the diversity of our faculty, faculty development programs must be tailored to their needs.

We are working to update and upgrade our facilities to support new pedagogies such as project-based learning and collaborative work. We strive to provide excellent learning environments that attract the best cadet and faculty candidates in the country.

Goals and Objectives

Goal 1: Educate, train, and inspire cadets to become commissioned leaders of character. We provide a broad liberal education through a core curriculum that teaches cadets how to think, majors that reflect the best of their disciplines and provide disciplinary depth, integrative experiences that provide opportunities for cadets to make connections across the curriculum, and other academic pursuits, such as minors and enrichment activities, that further intellectual development of cadets and allow them to pursue their intellectual passions. The purpose of this broad liberal education is articulated in the Academic Program's Overarching Academic Goal and Academic Program Goals. The Academic Program is delivered by an accessible faculty who employ the most effective pedagogies, explore and experiment with innovative pedagogical and curricular approaches, and engage in meaningful interactions with cadets inside and outside of the classroom.

- Publish a revised version of Educating Future Army Officers for a Changing World that articulates the educational philosophy of the Academic Program.
- Evolve MX400 into a robust academic course that integrates learning from the Academic and Military Programs.
- Bring the West Point Writing Program to full operating capacity and integrate it across the curriculum.
- Fully implement the Region-Culture and Gender, Sexuality, and Respect Threads.
- Expand course-integrated and library-supported information literacy instruction for cadets across all disciplines to further develop critical information assessment and use skills.
- Ensure that all faculty members understand the Academic Program Goals and the process used to assess how well cadets are attaining them.
- Employ assessment processes from the core course to the Academic Program level that efficiently determine the effectiveness of the curriculum and identify how to improve it.
- Provide opportunities for academic leaders to consider and discuss assessments of the curriculum and opportunities for improvement.
- Where applicable, compare assessments of the new curriculum to previous assessment results.
- Ensure assessment processes meet Middle States Commission on Higher Education standards and are informed by the 2015 Periodic Review Report's recommendations.
- Determine the feasibility of developing and resourcing a holistic honors/scholarship program that coordinates the efforts of programs that support our top academic students (e.g. Thayer Honors Program, Excel Scholars Program, XH courses, the Writing Fellows Program, science scholarships).
- Inform and support the Academy's effort to develop and retain at-risk cadets.
- Hire and retain a learning specialist to support the Return to Learn program.

- Investigate how technology might assist staff and faculty with their efforts to advise and support cadets and how technology might best be integrated into our classrooms.
- Provide effective and consolidated counseling services to assist cadets with the selection of their majors.
- Implement a new academic schedule that provides quality time for cadets to complete their academic work, creates opportunities for pedagogical flexibility in how the curriculum is delivered, and supports a culture where preparation is valued and expected.

Goal 2: Develop and advance faculty and staff excellence. We provide opportunities for the faculty and staff to achieve excellence and establish conditions for the Directorate to capitalize on the talent of all of its members. Achieving this goal requires acquiring a talented and diverse group of military and civilian faculty members and staff, developing and retaining them, and employing their talent for the good of West Point, the Army, and the nation. The preparation of our rotating military faculty for the operational force is an area of special emphasis because their assignments are classified as broadening assignments with specific developmental goals. An inclusive, professional, and collegial environment that embraces academic freedom and shared governance is essential for achieving this goal.

- Employ the Directorate external communication/media strategy to communicate the value of becoming a member of West Point's faculty.
- Communicate to greater numbers of potential rotating military faculty members what a
 faculty assignment entails as well as its value by ensuring faculty assignments continue to
 be classified as broadening assignments and meeting with potential faculty members at
 Army posts.
- Increase Army senior leader understanding and appreciation of West Point faculty assignments by communicating to them the value to the Army of the second graduating class.
- Continue to refine how we represent the opportunity to serve on the West Point faculty
 and staff so that potential civilian faculty and staff members understand the value of
 teaching and working at West Point.
- Develop a centralized information source that identifies developmental opportunities for faculty members at all stages of their careers.
- Revise the Faculty Manual and ensure that it is accessible to all faculty members and that faculty members understand its legal standing.
- Improve departmental plans for developing the faculty, including developing rotating
 military faculty members at the time of their selection, advising faculty members on
 academic advancement, and continuing to support faculty involvement in the Master
 Teacher Program.

- Provide civilian staff across the Directorate with developmental opportunities they need to
 effectively perform their duties and grow as professionals.
- Support faculty members as writers and teachers of writing through faculty development opportunities offered by the West Point Writing Program.
- Expand programs to support information literacy, security, and ethics to better equip the faculty and staff to lead in complex information environments.
- Create an environment in the Faculty Council that stimulates meaningful dialogue, allows
 the Directorate and Academy to benefit from the expertise of its members, and
 strengthens empathy between its members.
- Conduct Directorate-level events that enable academic leaders to discuss assessment of the curriculum and work together to identify opportunities for improvement.
- Conduct Directorate-level events that provide opportunities for members of the faculty and staff to learn about one another's research and share faculty and staff scholarly achievements.
- Facilitate collaboration across disciplines through the structure created by integrative threads.
- Conduct activities that enable the staff and faculty to get to know one another in a social setting.
- Implement a new academic schedule that provides time for faculty members to collaborate across the Directorate.
- Update the operational experience and sabbatical policy.
- Establish excepted service appointments for senior civilian faculty.
- Implement and continue to assess and refine the Directorate's external communication/media strategy.
- Implement and continue to assess and refine the Directorate's diversity and inclusion strategy so that the capabilities and contributions of each individual are valued and employed.
- Ensure that members of the second graduating class are properly employed in their post-West Point assignments.

Goal 3: Provide intellectual capital to the Army and the Nation. We contribute intellectual capital to our disciplines, higher education, the Army, the Department of Defense, and the nation. To facilitate this, we establish conditions and provide resources for faculty, staff, cadets, and centers to deepen their expertise, advance knowledge, and engage with external audiences. We pursue external collaboration and outreach to leverage the distinctive intellectual capital of West Point so that we are a resource for the Army and the nation. Academic freedom and responsibility are essential elements of our identity as scholars and of the Academy's identity.

- Secure and provide maximal resources for faculty, staff, and centers to engage in scholarship.
- Implement a new academic schedule that provides more quality time for faculty, staff, centers, and cadets to engage in scholarship.
- Share scholarly achievements with internal and external audiences.
- Build a catalog of faculty research and teaching interests that enables faculty to find others with common interests.
- Build a catalog that identifies and describes disciplinary tools (e.g. software) available at West Point.
- Implement and continue to assess/refine the Directorate's external communication/media strategy.
- Identify approaches to strengthening connections between our centers and external sources of research opportunities and funding.

Goal 4: Provide resources that enable long-term continual improvement. We ensure that members of the faculty and staff have the time, space, and resources to complete their work. Our policies, processes, structures, and infrastructure must reflect and support our status as a top institution of higher education and facilitate the achievement of excellence. We strive to make administrative processes more efficient, effective, and adaptable, and we manage resources effectively. We must mitigate logistical burdens by building capacities while finding efficiencies. To improve how well the Directorate accomplishes its mission, we maintain meaningful, sustainable, and feasible continual improvement processes.

- Inform and support the Academy's effort to fund the Academic Building Update Program and the Cyber and Engineering Academic Center to ensure they meet the requirements of faculty, staff, and cadets.
- Inform and support the development and maintenance of a sustainable master plan.
- Initiate, implement, and refine a new academic schedule that provides for pedagogical flexibility and increases time for prolonged and deep reflection.
- Implement and continue to assess and refine the Directorate's internal communication plan.
- Inform and support the Academy's efforts to improve information technology to ensure potential solutions meet the requirements of faculty, staff, and cadets.
- Enhance faculty training on the use of information technology in the classroom.
- Develop a more efficient process to spend gift funds.
- Work with the Directorate of Academy Advancement to establish a plan for creating a 501 (c) (3) that alleviates some of the logistical burdens associated with running conferences.

Credits and Notes:

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¹ Martin Luther King, "The Purpose of Education," *The Maroon Tiger*, January - February 1947, http://kingencyclopedia.stanford.edu/encyclopedia/documentsentry/doc_470200_000.1.html (accessed September 7, 2017).

