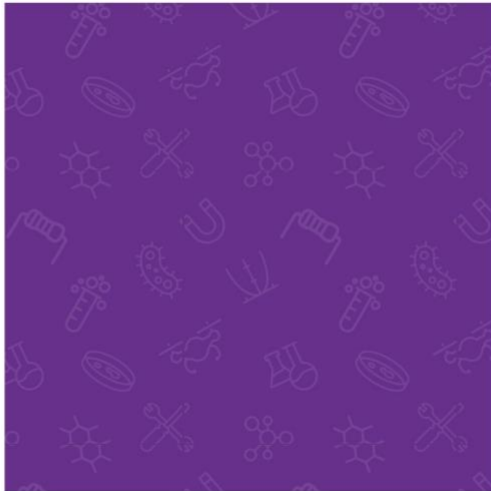


IT STARTS HERE. ★



ARMY EDUCATIONAL OUTREACH PROGRAM

Strategic Plan

March 2024



AEOP Vision Statement

A nation of STEM-inspired changemakers, problem solvers, and innovators prepared to solve the country's biggest challenges.

AEOP Mission Statement

To provide an accessible pathway of STEM opportunities to attract, develop, and mentor the next generation of our nation's diverse talent through U.S. Army educational outreach programs.

Core Objectives

- 1. STEM Literate Citizenry:** Broaden, deepen, and diversify the pool of STEM talent in support of our Defense Industry Base (DIB)
- 2. STEM Savvy Educators:** Support and empower educators with unique U.S. Army research and technology resources.
- 3. Sustainable Infrastructure:** Develop and implement a cohesive, coordinated, and sustainable STEM education outreach infrastructure.

Intent of Plan

This strategic plan is crafted to establish clear goals and objectives that will empower AEOP, its partners, and consortium members to make effective decisions that will strengthen services. By doing so, AEOP will create impactful learning opportunities for program participants, laying the foundation for their success in future STEM careers. This plan will be supplemented by an implementation program built by and for the AEOP consortium members. The implementation plan will provide more specific implementation activities to be carried out by various entities across AEOP.

AEOP: A Strategic Vision for STEM Excellence and Inclusion

In the landscape of America's educational and technological advancements, the Army Educational Outreach Program (AEOP) stands as a beacon of excellence and inclusivity. For over half a century, the U.S. Army, understanding the pivotal role of STEM (Science, Technology, Engineering, and Mathematics) literacy, has championed AEOP. This initiative is not just a program; it's a national imperative to cultivate a STEM-literate citizenry capable of navigating and solving the complexities of modern and future challenges.

This AEOP strategic plan aligns seamlessly with the Department of Defense's STEM Strategic Plan, underscoring a commitment to building strong foundations in STEM literacy, fostering diversity, equity, and inclusion, and preparing a workforce equipped for the future. It's a strategic endeavor to inspire and cultivate talent, addressing critical STEM challenges through a diversity-enriched, evidence-based approach.

At the heart of AEOP lies the recognition that STEM education is crucial for all, extending beyond traditional STEM occupations. The U.S. Army's need for a STEM-literate workforce spans a spectrum from STEM and STEM adjacent careers in fields like advanced manufacturing and logistics. AEOP, thus, offers an inclusive, comprehensive portfolio of STEM opportunities, leveraging world-class scientists, engineers, and research facilities to provide real-world experiences, competitions, and internships.

AEOP's narrative is one of progression and opportunity that starts from elementary school with various initiatives like Gains in the Education of Mathematics and Science (GEMS) and Junior Solar Sprint (JSS), to high school programs like Unite and the Junior Science and Humanities Symposium (JSHS). To foster continuous engagement in STEM, AEOP's efforts provide a journey through education that culminates in internships and fellowships, offering hands-on experience in cutting-edge research and development. These efforts are supported by first-in-class resources provided by Army researchers and laboratory resources.

The program's impact is tangible and significant: in 2022 alone, AEOP engaged nearly 18,000 students and approximately 950 adults (e.g., educators, advisors, mentors, and S&E volunteers). Evaluation survey results from 23% of students show that: 95% gained in-depth knowledge of a STEM topic; and 93% increased their interest in a new STEM topic. This strategic plan not only reiterates AEOP's commitment to these ideals but also its pivotal role in actualizing the DoD's vision for a future-ready, diverse STEM workforce.

This strategic plan presents a transformative vision for the AEOP, elevating it from a program to a nationwide crusade in STEM education. It beckons a collective effort to close the divides in STEM literacy and awareness by connecting communities, empowering educators, and inspiring students. Legislators, academic allies, industry leaders, and government agencies are implored to acknowledge and bolster AEOP's essential mission in shaping our nation's STEM future. This

initiative transcends educational boundaries; it represents a strategic investment in the United States' security, ingenuity, and economic prosperity.

Presented here is a blueprint for transformation within AEOP, extending an invitation for collective participation in a journey of change. It charts a course for nurturing innovative minds destined to guide America toward a future where challenges yield to skillful creativity and indomitable innovation.

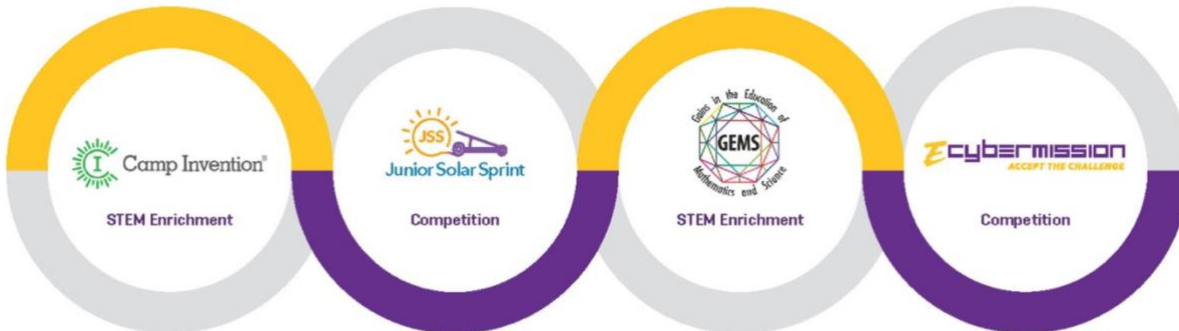
AEOP STEM Program Pipeline

aeop
ARMY EDUCATIONAL
OUTREACH PROGRAM
usaeop.com

FIND YOUR AEOP PATHWAY

THE NEXT GENERATION OF INNOVATORS

Instagram Facebook Twitter YouTube LinkedIn



Camp Invention®

A confidence-boosting STEM summer camp where kids build creative inventions and lasting friendships.
Rising grades K-6

Junior Solar Sprint (JSS)

A competition where students design, build and race solar-powered cars using hands-on engineering skills and principles of science and math.
Grades 5-8

Gains in the Education of Mathematics and Science (GEMS)

A summer STEM enrichment program where students experience real-world, hands-on STEM activities at select U.S. Army Research Labs. GEMS also recruits Teachers and Near-Peer Mentors [college students] who receive a stipend for their assistance
Rising grades 5-12

eCYBERMISSION

A virtual STEM competition where students, in teams of 2-4, choose a problem in their community to investigate with science or solve with engineering, competing for Savings Bond prizes.
Grades 6-9



Junior Science and Humanities Symposium (JSHS)

A DoD-sponsored STEM competition where students submit original research to their regional symposium and compete individually to win scholarships and a chance to advance and compete at the National JSHS.
Grades 9-12

Unite

A summer STEM enrichment program held on university campuses where students will learn about STEM careers, collaborate and solve problems as a team, and participate in STEM-related, hands-on and project-based activities.
Rising grades 9-12

AEOP Internships

A paid, hands-on research opportunity with real-world STEM experiences alongside renowned scientists and engineers in labs throughout the country.
High school and undergraduate students

AEOP Fellowships

A paid, professional research opportunity at U.S. Army Research Labs and Centers.
Graduate students, PhD candidates, recent master's graduate, or postdoctoral students

You can begin your AEOP journey in any program | Visit www.usaeop.com to learn more

Goal 1.0 – Establish AEOP as a Premier Program for STEM Education in the Nation

Connection to Department of Defense STEM Plan

DoD STEM Goal 2.0 - Attract the Nation's and DoD's current and future STEM workforce through multiple pathways to educational and career opportunities.

DoD STEM Goal 4.0 - Advance the efficiency and effectiveness of STEM education and workforce development programs, activities, and outreach through evaluation and assessment.

Objective 1.1 - Develop strategic partnerships with leading technology companies, universities, and research institutions – building off the great partnerships already established with the Army labs – to provide AEOP program partners with exposure to cutting-edge STEM applications, career pathways, and innovative pedagogical approaches in program curricula to enhance learning experiences and keep pace with the rapidly evolving STEM landscape.

Objective 1.2 - Establish a comprehensive evaluation framework for AEOP programs, focused on consistently monitoring performance metrics, integrating annual reviews of emerging STEM education best practices, standardizing practices across all program areas, systematically collecting and implementing feedback from participants and their families, and conducting regular audits to align programs with AEOP's mission, vision, and strategic goals.

Objective 1.3 - Execute a cohesive STEM program pipeline by tracking and analyzing participant transitions across programs, creating strategies that build on prior learning, and forming a comprehensive educational and developmental roadmap to guide each student's intentional and attentive journey through AEOP's offerings.

Objective 1.4 - Deploy a quality-controlled, comprehensive marketing strategy for program partners, leveraging a variety of media channels such as digital marketing, social media, community outreach, and educational partnerships, to effectively enhance AEOP's visibility and appeal.

Goal 2.0 – Expand and Facilitate Greater Access to AEOP Programs for Priority Populations

Connection to Department of Defense STEM Plan

DoD STEM Goal 3.0 - Increase participation of priority populations in STEM education and workforce development programs, activities, and outreach.

Objective 2.1 - Utilize the findings and best practices derived from pilot projects to develop and share effective outreach strategies with AEOP program partners by providing program partners with the necessary tools and guidance to effectively reach and enroll students from priority populations in AEOP programs.

Objective 2.2 - Leverage insights from the thorough evaluation of existing programs to identify and engage in expansion and partnership opportunities, aiming to broaden AEOP's program reach into underserved areas and thereby improve accessibility and engagement for a diverse participant body.

Objective 2.3 - Provide K-12 educators, parent groups, Army labs, and community organizations focused on reaching priority students with a wealth of resources, including toolkits, to cultivate and strengthen relationships within priority communities.

Objective 2.4 - Strengthen and expand partnerships through strategic participation in events aimed at reaching priority populations, like DEPSCoR, ROTC, HBCU/MI roadshows, and military family gatherings, while nurturing and intensifying connections with minority-serving STEM organizations.

Goal 3.0 – Strengthen AEOP Alumni Engagement

Connection to Department of Defense STEM Plan

DoD STEM Goal 1.0 - Inspire community engagement in DoD STEM education programs and activities to provide meaningful STEM learning opportunities for students and educators.

Objective 3.1 - Incorporate an alumni engagement element into the AEOP program pathway, utilizing it as a strategic tool to both promote AEOP programs and encourage former participants to stay involved as adult contributors in various capacities like judges, speakers, and resource teachers.

Objective 3.2 - Establish a focused alumni engagement campaign that reinforces bonds among AEOP alumni and actively fosters their sense of pride and unique identity as AEOP graduates, thereby promoting a strong community spirit and sustained affiliation with the program.

Objective 3.3 - Create a comprehensive resource guide for adult supporters of student participation, including mentors and volunteers, providing them with updated information and resources detailing ways they can assist and engage in each AEOP program.

Objective 3.4 - Create and continuously improve training and support mechanisms for AEOP educators, parents, mentors, and volunteers, focused on effectively engaging with and supporting AEOP students and programs, incorporating ongoing feedback from both student participants and adults to refine these resources.

Goal 4.0 – Enhance Organizational Collaboration and Clarity within AEOP

Connection to Department of Defense STEM Plan

Goal 4.0 of the AEOP Strategic Plan, while not directly mirroring the Department of Defense's STEM Plan, plays a crucial role in fortifying the consortium's capability to support AEOP's essential role in shaping the nation's STEM future, positioning AEOP as the premier choice for STEM programming. This goal focuses on enhancing internal organizational coherence and collaboration within AEOP. By standardizing terminology, encouraging inter-program partnerships, structuring consortium meetings for optimal collaboration, and clearly defining leadership roles, AEOP aims to build a stronger, more unified consortium. These efforts, though internally focused, are pivotal in amplifying AEOP's effectiveness and reach, directly contributing to the DoD's overarching objective of developing a skilled, diverse STEM workforce.

Objective 4.1 - Standardize and uniformly apply a clear set of key terminologies across AEOP programs and communications for enhanced clarity and understanding among participants, educators, and stakeholders, complemented by a comprehensive glossary outlining these terms.

Objective 4.2 - Promote and support purposeful internal and external collaborations, extending beyond consortium meetings, to include joint workshops, conferences, and crossover events, using collaborative tools to deepen mutual understanding and strengthen the AEOP program pathway.

Objective 4.3 - Implement a consistent and structured approach for AEOP consortium meetings, with established procedures focused on enhancing collaboration, building relationships, and prioritizing key elements crucial to the success of the AEOP program pathway.

Objective 4.4 - Develop an inclusive and detailed leadership plan that specifies roles and responsibilities for Individual Program Administrators, toolkit partners, the lead organization, and the Army, ensuring clear understanding of partner interrelationships and equitable involvement of consortium members in working groups.

Next Steps

As we embark on the journey to implement the strategic plan for the Army Educational Outreach Program (AEOP), beginning in 2024, we stand at the threshold that will position AEOP as a leader in STEM education programming in the nation. This plan is more than a roadmap; it's a commitment to excellence, a collaborative effort that embodies the spirit of unity and shared purpose.

The lead organization, as the orchestrator of this plan, will shepherd the strategic plan with foresight and precision, ensuring that every step taken aligns with both AEOP's goals and the Department of Defense's strategic goals for STEM education. The Army's insights and guidance will be instrumental in steering this ship, ensuring that we remain true to our mission of inspiring and cultivating talent, with a strong emphasis on diversity and evidence-based approaches. The involvement of Individual Program Administrators and toolkit partners is not just a functional necessity but a symbol of our collaborative ethos. Their role in implementing specific aspects of the plan, under the vigilant supervision of the lead organization, is a testament to the power of partnership. Each partner brings unique strengths and perspectives, enriching our collective effort.

This strategic plan is a call to action, a rally to unite under the banner of educational excellence and innovation. The emotional gravity of our mission cannot be overstated. We are not just educating the next generation of scientists, engineers, and innovators; we are shaping the future of our nation and ensuring our competitiveness in the global arena. The Department of Defense's commitment to a continuous learning structure is mirrored in our approach, where every step forward is informed by learning, evaluation, and adaptation.

Using an Implementation Matrix

An implementation matrix is a strategic tool that serves as a comprehensive guide for executing a strategic plan. It outlines specific objectives, associated actions or strategies, timelines for implementation, responsibilities for each task, resources required, and measurable performance indicators. For AEOP, the implementation matrix is not just a roadmap but also a living document that enables effective tracking and management of the strategic plan's progress. By clearly defining who is responsible for each action and when these actions are expected to be completed, the matrix facilitates accountability and organization within the consortium. It's crucial that this matrix is regularly reviewed and updated, particularly during consortium meetings. These updates allow for adjustments based on real-time feedback, changing circumstances, and progress achieved, ensuring the strategic plan remains dynamic and responsive to the needs of AEOP.

To aid in this process, the following section includes a sample implementation matrix designed for the consortium's use. This matrix exemplifies how to break down each goal of AEOP's strategic plan into actionable objectives, detailed strategies, and timelines, providing a clear path for execution. It assigns specific responsibilities to ensure each task is overseen efficiently and incorporates performance indicators for ongoing evaluation of success. This sample matrix serves as a starting point for the consortium, offering a structured framework that can be tailored to the unique aspects of each objective. It's a foundational tool that can be adapted and expanded, empowering the consortium to effectively implement and manage the strategic plan, ensuring AEOP's objectives are met, and its vision is realized.