



AMERICA
SUCCEEDS

PATHSMITH™
DURABLE SKILLS

NAF Academies

Where Professional Practice Makes Durable Skills Inevitable

Three Programs: Washington, D.C. · Birmingham, Alabama · Miami, Florida



"People do this as their actual job. I could do this."

— Aaliyah, DC Academy of Health Sciences

NAF ACADEMIES

NAF academies operate as “schools within schools,” cohorts of 150-210 students taking specialized academy courses together while accessing their comprehensive schools’ broader offerings. Three academies participated in this study:

School Snapshots

DC Academy of Health Sciences	Calvin Coolidge High School, Washington, D.C. ~210 students. Project Lead the Way Biomedical Sciences pathway. NAF Distinguished Academy. Partners include Georgetown MedStar Hospital, Children’s National Medical Center, National Institutes of Health, FDA, Georgetown School of Medicine.
Birmingham Academy of Engineering	Ramsay High School, Birmingham, Alabama. ~200 students. Project Lead the Way Engineering pathway. NAF Distinguished Academy. Partners include Pylon Building Group/Brasfield & Gorrie, Alabama Power, Birmingham Airport Authority, UAB School of Engineering, 25+ engineering firms.
Miami Academy of Law	Alonzo and Tracy Mourning Senior High, Miami, Florida. ~150-180 students. Constitutional law, criminal justice, and legal reasoning. Led by Peter Falcon (33 years in education, 35 years FBI). Partners include North Dade Justice Center, Patiño Law Firm, FBI field office.

What All Three Share

Through an open enrollment process with no prerequisites needed, students commit to three- or four-year pathways. All academies share core NAF infrastructure: industry advisory boards (minimum 10 members, 80% from business and industry), 80+ hour paid professional internships, NAFTrack digital portfolio system for documenting competency development, project-based learning as primary pedagogy, and a shared Future Ready Skills framework (Communication, Collaboration, Problem-Solving, Initiative & Self-Direction, Social Awareness, and Planning for Success).

What Makes It Distinctive

- **Industry advisory boards with genuine authority** shape curriculum, evaluate student work, provide internships, and advocate for programs
- **Paid internships** where students contribute genuine professional value (DC health sciences seniors earn \$17.50-20/hour)
- **Professional identity markers** from the start: CPR/First Aid certification freshman year (DC), engineering notebooks following corporate standards (Birmingham), judicial oaths before Student Court service (Miami)
- **Work-based learning continuum** progressing from Career Awareness (guest speakers, tours) through Career Exploration (job shadowing, informational interviews to Career Preparation (paid internships, clinical rotations, mentored projects)
- **Career-specific competency development** where durable skills emerge through professional practice rather than generic instruction

Opening: Three Paths to the Same Discovery

Aaliyah entered DC's Academy of Health Sciences in tenth grade without passion or direction. "I just got put into biomedical science. I didn't really know what I was getting into." For over a year, she moved through the curriculum competently but without engagement.

Destiny entered Birmingham's Academy of Engineering uncertain about specialization. "I was kind of on the fence on what version of engineering I want to do."

Caleb entered Miami's Academy of Law with general legal interest but without clear specialization or concrete professional connections.

Three students. Three cities. Three professional fields. Each arrived without the clarity or confidence they would develop. Each left with professional identity, informed career vision, and the agency to pursue it. The mechanism was the same in all three cases: sustained immersion in authentic professional practice within a framework that named what they were developing and made their growth visible.

The Model: Career-Focused Education That Develops Everything

NAF academies answer a different question than most schools. Rather than asking "How do we add skills to traditional schooling?" they ask "How do we prepare students for professional practice, which inherently requires both technical knowledge and durable capabilities together?"

Healthcare professionals cannot master clinical knowledge without communication, critical thinking, collaboration, and metacognition. Engineers cannot design solutions without creativity, collaboration, communication, and fortitude. Legal professionals cannot practice law without critical thinking, communication, character, and collaboration. The professional context makes skills inseparable from content. That integration is the point.

The Four-Year Progression

All three academies structure three- or four-year progressions building from foundational knowledge through increasingly authentic professional practice.

Freshman year establishes dual foundations: basic knowledge and initial professional identity. DC students earn CPR/First Aid certification, transforming identity from "student learning about healthcare" to "certified first responder." Birmingham freshmen begin engineering notebooks following corporate standards. April, lead educator with 17 years of corporate engineering experience, shows students her own professional notebook: "This is not just something we made up. If you pursue engineering professionally, you're going to have to properly document all your work." Miami students study general law principles and observe Student Court proceedings.

Sophomore and junior years deepen technical knowledge while expanding authentic professional exposure. DC students progress through Medical Interventions and develop diagnostic thinking. Birmingham students advance through Principles of Engineering and begin interviewing working engineers, building mentorship relationships. Miami students progress through Constitutional Law and Court Proceedings, intensifying Student Court involvement.

Senior year brings culmination: students exercising genuine professional authority with minimal scaffolding. DC seniors complete 120-hour paid clinical internships. Birmingham seniors present year-long capstone projects to boards of professional engineers. April: "I turn from instructor to facilitator. They pretty much run it." Miami seniors operate Student Court with genuine judicial authority, making binding decisions affecting peers' academic futures.

Seen Through a Durable Skills Lens

NAF didn't build its framework from durable skills research. They built it by asking industry partners what separates strong candidates from weak ones, what determines career advancement, and what enables workers to navigate constant change. Peter Falcon articulated the professional imperative: "If you're going to go into law enforcement, each of these things is pretty important. We don't want people in law enforcement that are not critical thinkers or good communicators or good collaborators."

The intersection with durable skills research is nearly complete. Communication, Collaboration, and Problem-Solving appear in both frameworks. Initiative & Self-Direction connects to Agency and Growth Mindset. Social Awareness links to Character and Mindfulness. Planning for Success maps to Metacognition and Fortitude. The convergence isn't coincidental. It's because professional practice genuinely requires these capabilities, and both NAF and the research arrive at the same conclusion from different starting points.

In Practice: Three Student Journeys

Aaliyah: From Passive Placement to Forensic Scientist Identity (DC Health Sciences)

For over a year after entering the academy, Aaliyah completed assignments and passed assessments without engagement. Then junior year's forensics unit changed everything. The academy staged crime scenes following professional protocols. Students became investigators: analyzing blood spatter patterns, collecting fingerprint evidence, photographing scenes systematically, preserving chain of custody, building comprehensive cases, and presenting findings while defense attorneys challenged their conclusions.

"I was like, people do this as their actual job. I could do this." That realization marked transformation from passive student to emerging professional. The work's authenticity created awakening: this wasn't school exercise but professional practice she found intellectually compelling.

The transformation accelerated. Aaliyah joined HOSA, competing in forensic science and winning twice. She independently contacted the medical examiner's office, securing a summer internship. She began researching forensic science programs, making strategic college decisions based on program strength. By senior year, she spoke about career plans with informed specificity, understanding daily work realities, intellectual challenges, and satisfactions. Her vision wasn't fantasy based on television but realistic understanding grounded in authentic investigative work meeting professional standards.

THROUGH A DURABLE SKILLS LENS: CRITICAL THINKING · AGENCY · METACOGNITION · FORTITUDE

Aaliyah's story illustrates the most distinctive feature of NAF's approach: professional context as the engine of skill development. She didn't develop Critical Thinking through a thinking-skills curriculum. She developed it through evidence analysis under cross-examination pressure. She didn't develop Agency through a lesson on self-direction. She developed it by independently contacting the medical examiner's office and securing her own internship. The professional context made skill development inevitable because the work demanded it.

Destiny: From Engineering Uncertainty to "I Want My Impact to Matter" (Birmingham Engineering)

Destiny's junior year intensified exploration. She interviewed aerospace engineers, learning

about career paths and the impact their work made. Her RTX (Raytheon Technologies) internship provided immersive exposure. Working with engineers on government contracts, she met professionals who spoke about their impact: “They all talked about how nice it was, and how they felt like the impact they were making mattered, and I want my impact to matter.” She also met engineers on track to become astronauts, demonstrating possibilities she’d considered unreachable: “After the internship, I realized anything’s possible.”

The internship developed professional capabilities through daily meetings with advisors and corporate assignments. Her capstone integrated environmental passion with engineering methodology: using static electricity to extract microplastics from oceans, combining genuine eco-technology research, engineering design process, CAD modeling, and professional presentation.

By graduation, Destiny’s vision was clear and informed: aerospace engineering addressing environmental challenges. Her understanding wasn’t speculative. She knew from authentic exposure what aerospace engineers do, what intellectual challenges the work presents, and whether it aligned with her values.

THROUGH A DURABLE SKILLS LENS: CREATIVITY · COMMUNICATION · GROWTH MINDSET · INFORMED VISION

Destiny’s capstone, using static electricity to extract ocean microplastics, demonstrates what happens when Creativity develops through professional engineering methodology rather than generic “creative thinking” exercises. Her phrase “I want my impact to matter” is Professional Identity at its most articulate: not “I want a good job” but “I want work that serves purposes I believe in.” The RTX internship didn’t just expose her to aerospace. It showed her that the possibilities she’d dismissed as unreachable (“anything’s possible”) were available to someone with her developing capabilities.

Caleb: From General Interest to Self-Directed Judicial Internship (Miami Law)

Three years with Peter Falcon and Luke transformed both Caleb’s legal understanding and his capacity to create professional opportunities independently. The academy’s systematic professional exposure proved foundational. “We’ve met with a judge of the 11th Judicial Circuit Court. We’ve met with Supreme Court Justice Sonia Sotomayor.” These weren’t brief celebrity sightings but substantive interactions where students networked and built relationships.

A classroom visit from an 11th Judicial Circuit Court judge created Caleb’s pivotal moment. Rather than passively appreciating the visit, he recognized the opportunity and took action. “I got in contact with him, and I am currently in the process of applying for an internship with him at the 11th Judicial Circuit Court.”

This self-advocacy, initiating professional contact, articulating interest effectively, demonstrating capability warranting consideration, reflects agency the academy systematically cultivates. Teachers create opportunities for professional interaction, but students must exercise initiative converting meetings into ongoing relationships. Caleb’s vision for the internship demonstrated informed understanding: “It gives you the chance to immerse yourself in law itself, and be able to see how it really is.” The “how it really is” phrase reveals recognition that authentic professional exposure differs from classroom learning.

**THROUGH A DURABLE SKILLS LENS:
AGENCY · COMMUNICATION · LEADERSHIP · CHARACTER**

Caleb's story demonstrates Agency in its most operational form: seeing an opportunity that nobody pointed out to him and taking initiative to pursue it. The classroom judge visit was available to every student. Caleb was the one who followed up. That distinction, between experiencing an opportunity and acting on it, is what the research means by self-direction. His capacity to network professionally with a sitting judge, as a high school student, reflects Communication development through years of Student Court service, courthouse exposure, and legal discourse.

What Makes It Work: Three Spotlights Across Three Programs

Every school in The Path Forward study embraces the three core principles and draws on the four amplifiers to varying degrees. NAF academies demonstrate all of them. Three stand out, each illustrated most vividly by a different program.

Authentic Experiences: Miami's Student Court (Genuine Judicial Authority)

Miami's Student Court provides perhaps the highest-authenticity experience in the entire study. Students exercise genuine judicial authority handling 100% of the school's Level 1-2 discipline cases with real consequences for peers. Students trained in legal procedures and sworn to judicial oaths conduct evidentiary hearings, question witnesses, deliberate on appropriate sanctions, and issue binding decisions subject only to administrative legal compliance review.

Cases aren't hypothetical. They involve actual rule violations. Consequences aren't simulated. They affect students' academic records and school standing. Legal reasoning must be rigorous because decisions affect actual people. Evidence evaluation must be thorough because insufficient investigation produces unjust outcomes. Character matters profoundly because students wield power over peers' futures.

Luke's courthouse partnerships extend authentic legal exposure further. Students intern with judges at North Dade Justice Center, accessing behind-the-scenes operations. One law firm partnership enabled students to help write actual legal briefs: "If they did it correctly, they'd get to go to court with them and see their work actually unfold in a real courtroom."

Noah captured what distinguishes this from typical school experiences: "We're actually speaking up, we're actually communicating, we're actually talking with one another, we're collaborating. And that really builds character." The repeated "actually" reveals his recognition that genuine engagement differs from performative school participation.

Structured Reflection: Birmingham's Engineering Notebooks (Professional Documentation as Metacognitive Practice)

Birmingham's engineering notebooks embed reflection into technical documentation following corporate standards. Students maintain notebooks across all four years: dated entries in permanent ink, detailed sketches with dimensions, calculations shown step-by-step, test results documented, design decisions justified, reflections on what worked and what didn't. April shows students her own corporate notebook from her 17-year engineering career, establishing that student practice mirrors professional practice exactly.

The weekly rhythm creates reflection habits rather than occasional exercises. Students maintaining notebooks across four years internalize reflection as natural professional practice. The notebooks serve as primary assessment evidence for capstone projects, with professional engineers examining them to assess design process rigor. The Boeing engineer's comment about Birmingham students' work, "Your documentation is better than some of our new hires," represents professional validation confirming genuine capability development.

The NAFTrack digital portfolio system reinforces this across all three academies. After every guest speaker, field trip, or internship day, students complete reflections identifying which Future Ready Skills they practiced. Cumulative documentation enables longitudinal reflection. Students reviewing four years of entries observe development patterns invisible in single moments.

Progressive Complexity: DC's Four-Year Clinical Pathway (From CPR Card to Paid Patient Care)

DC's four-year progression is the clearest illustration of how NAF academies scaffold challenge across years. Freshman year, students earn CPR/First Aid certification, their first professional credential. It transforms identity: they're not students learning about healthcare. They're certified first responders. Sophomore and junior years progress through Project Lead the Way's biomedical sequence, developing clinical reasoning through increasingly sophisticated content. The forensics unit, where Aaliyah's transformation occurred, demands professional-level investigative methodology.

Senior year brings 120-hour paid clinical internships at Georgetown MedStar, Children's National, NIH, FDA, and Georgetown School of Medicine. Students earn \$17.50-20/hour, nearly double general program rates, reflecting genuine professional value. They participate in patient rounds, conduct clinical research, shadow physicians across specializations, and assist with medical procedures.

Evelyn's CNA clinical practice required 40 hours in memory care and skilled nursing facilities with real patients depending on her competence. "Working with memory care people taught me how to be patient, how to tolerate things even though they're sometimes hard to communicate with the person, how you can treat people and still feel empathy for them and work hard at the same time." The patient care wasn't simulated. Real people depended on her competence. The communication challenges were actual difficulties connecting with cognitively impaired patients. These authentic conditions developed capabilities impossible through classroom discussion.

Naomi's experience illustrates what the progression enables. She described hating presentations: "I really, really, really despise it." But through repeated practice with progressively sophisticated audiences across junior year, "we had a lot of presentations that really helped me present really well in front of people." The four-year scaffold meant she wasn't thrown into professional presentations as a freshman. By the time she reached clinical internships, three years of progressive challenge had built the communication capability that patient care demands.

Beyond Skills: Agency, Identity, and Possibility

What NAF academies ultimately produce extends beyond capabilities. They produce agency, professional identity, and informed vision, and they do so across three dramatically different professional contexts.

Agency appears in how students create their own opportunities. Aaliyah independently contacted the medical examiner's office securing a summer internship. Caleb initiated contact with a judge to coordinate his own judicial internship. Daniel strategically pursued four diverse internships building broad professional networks, reflecting: "It's been a way for me to build a name for myself and build my own network, so that when people hear about me, they know I was connected to the Engineering Academy."

Professional identity forms through credentials, authentic responsibilities, and professional validation. DC students with CNA licenses are certified nursing professionals, not students who completed a program. Birmingham students whose documentation exceeds "some of our new hires" according to a Boeing engineer are emerging engineers, not students playing at engineering. Miami students exercising binding judicial authority are legal practitioners, not students doing a mock trial.

Informed vision emerges from years of authentic professional exposure. Aaliyah knows forensic pathology isn't television drama but detailed analytical work requiring precision and rigor. Destiny understands aerospace engineering's challenges and rewards through sustained professional interaction, not speculation. Noah understands law enforcement through Student Court service and professional observations. Each makes informed choices about college majors and career directions because they've authentically experienced what different paths require.

Transferable Insights for School Leaders

Treat industry partners as co-creators, not consultants. NAF’s advisory boards don’t just advise. They shape curriculum, evaluate student work against industry standards, provide internships, and serve as authentic audiences. The 80% business representation requirement ensures professional perspectives dominate. Invite partner input into curriculum and standards. If industry professionals identify communication as critical but current programming develops it inadequately, the curriculum must adapt.

Commit to multi-year progressive immersion, not isolated exposure. Single career days or brief job shadows cannot create the professional identity formation these academies achieve. The difference between “I want to be a nurse” based on television and “I am becoming a nurse” based on 80+ hours of clinical practice represents transformation impossible through abbreviated experiences.

Let professional practice create the integration. NAF academies don’t teach content and then separately teach skills. They prepare students for professional practice, which inherently requires both. Birmingham doesn’t teach engineering content and then separately teach collaboration. They prepare students to function as engineers, which inherently requires collaborative design work. This professional integration produces more natural and lasting skill development than adding generic skills instruction to traditional content courses.

Create professional identity markers from the start. DC’s freshman CPR certification, Birmingham’s engineering notebooks, Miami’s judicial oaths: each signals professional entry from year one. Students aren’t preparing to someday become professionals. They’ve already entered the profession’s outer rings.

A Note on the Model’s Limits

These three NAF academies’ results are remarkable. They are also the product of specific conditions: Washington DC’s concentration of premier medical institutions, Birmingham’s manufacturing heritage providing extensive engineering partnerships, Miami’s multicultural legal landscape and Peter Falcon’s extraordinary dual-career access to FBI and judicial networks. The academy-within-school model requires administrative flexibility, dedicated educators with professional expertise, and sustained community partnerships. Replicating any of these academies wholesale is not the point. The point is that the underlying commitments, industry co-creation of curriculum, progressive professional immersion across years, authentic assessment by professional audiences, career-specific competency development where durable skills emerge through professional practice, and cohort models enabling sustained relationships, can be adapted across very different professional contexts and geographic settings. What healthcare, engineering, and law share is that authentic professional practice inherently develops durable skills. The NAF framework proves those skills develop powerfully when schools organize education around professional preparation rather than hoping skills emerge as byproducts of traditional instruction. The work for other school leaders is to find their own version of the question: What professional fields in your community could serve as the context through which students develop both technical knowledge and the durable capabilities that transfer everywhere?

This profile is part of a series documenting schools whose approaches have produced remarkable outcomes for students, and whose work, examined closely, illuminates how the capabilities researchers call durable skills develop in practice. It draws on interviews with NAF academy students, educators, and leadership conducted during the 2024-25 school year. All student names are pseudonyms.



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