Kelvin Shalev Amittai Arthur, M.Ed.
Clinical Assistant Professor, Educator Preparation
Mary Lou Fulton College for Teaching and Learning Innovation
Arizona State University

Email: karthur4@asu.edu

Professional Summary

Clinical Assistant Professor in educator preparation at the Mary Lou Fulton College for Teaching and Learning Innovation at Arizona State University, with extensive experience in secondary science and STEM education, and a disciplinary focus in Earth science emphasizing conservation and sustainability, as well as instructional design and teacher mentoring. I support preservice and in-service teachers in designing standards-aligned, data-informed, and pedagogically sound instruction across discipline-specific contexts. My work integrates generative artificial intelligence into instructional planning and instructional decision-making, with particular focus on how teachers engage with complex disciplinary literacy texts. Through teaching, research, and faculty service, I contribute to innovative, principled approaches to teacher preparation that strengthen instructional practice and professional learning.

Education

- **Doctor of Education (EdD), Leadership and Innovation — ABD**
  Mary Lou Fulton College for Teaching and Learning Innovation, Arizona State University - Expected Fall 2026
  - **Problem of Practice:**
    Mixed-method action research intervention exploring how preservice secondary teachers engage with generative artificial intelligence when working with complex disciplinary literacy texts and how these interactions shape instructional design, instructional decision-making, and lesson planning processes in discipline-specific contexts. This practice-based inquiry is situated within educator preparation and focuses on strengthening instructional coherence, alignment, and pedagogical quality.
- **Graduate-Level Professional Development in Education**
  Ashland University, Ashland, OH — 2018
- **Master of Education (M.Ed.), Curriculum and Instruction**
  Cleveland State University, Cleveland, OH — 2010
- **Bachelor of Arts, Earth Sciences**
  Kent State University, Kent, OH — 2008
  Minors: Geology; Jewish Studies

Academic Appointments

- **Clinical Assistant Professor, Educator Preparation**
  Mary Lou Fulton College for Teaching and Learning Innovation, Arizona State University
  Fall 2024–present
  - Teach graduate-level professional experience courses within the Division of Teacher Preparation, supporting preservice secondary teachers across middle and high school contexts
  - Provide clinical supervision, mentoring, and instructional coaching focused on lesson planning, instructional design, assessment, and alignment of standards and objectives
  - Apply a disciplinary background in secondary science education to support content-specific instructional decision-making and disciplinary literacy practices
  - Integrate generative artificial intelligence into teacher preparation to support instructional planning, differentiation, and reflective practice
- **Teaching Scope (Graduate & Undergraduate)**
  - Graduate and undergraduate coursework across secondary educator preparation, including secondary mathematics and science methods and assessment, integrated STEAM learning experiences, instructional technology and digital literacy, sustainability and science literacy, and high-volume clinical supervision and instruction across multiple sections of apprentice teaching, internship, and residency/student teaching courses spanning multiple terms and delivery formats.

Scholarly & Practice-Based Inquiry (In Progress)

- **Doctoral Dissertation (EdD), Leadership and Innovation — Arizona State University**
  - Practice-based, mixed-methods action research examining how preservice secondary teachers engage with generative artificial intelligence when working with complex disciplinary literacy texts, and how these interactions inform instructional design, instructional decision-making, and lesson planning within educator preparation contexts. This inquiry is situated in clinical teacher preparation and focuses on strengthening instructional coherence, alignment, and pedagogical quality.

- **Scholarship of Teaching and Learning (SoTL)–Informed Faculty Professional Development**
  - Design and facilitation of faculty professional development grounded in the Scholarship of Teaching and Learning, examining instructional design decisions, ethical considerations, and pedagogical implications of integrating generative artificial intelligence in educator preparation coursework. This work emphasizes reflective practice, instructional coherence, and human-centered approaches to educational technology.

- **Design-Based Inquiry in AI-Enhanced Instructional Planning**

- Ongoing design-based inquiry into the implementation of generative artificial intelligence as a pedagogical support tool for lesson planning, differentiation, and disciplinary literacy in teacher preparation. This work involves iterative design, implementation, and refinement of instructional artifacts, templates, and course structures to support data-informed instructional decision-making and clinical practice.

Grants & Funding

- **Curriculum Development Grant — $3,500**
  St. Peter Chanel High School (2010–2012)
  Cleveland Catholic Diocese — Cleveland, OH
  - Secured a $3,500 grant to design and implement a conservation and sustainability curriculum and summer workshop supporting secondary science instruction and experiential STEM learning.

Awards & Recognition

- **Serving University Needs (SUN) Award — Arizona State University, 2025**
  - Recognized for exemplary service and leadership as a new faculty member in the Mary Lou Fulton College for Teaching and Learning Innovation, including sustained commitment to student success, initiative in program support, and contributions that advance ASU's values of innovation, collaboration, and service.

Presentations & Invited Talks

- **Partnership Presentations on Educator Preparation and Instructional Innovation**
  Path2Teach Conference — Mesa, AZ (Spring 2026)
  - Delivered partnership-facing presentations as part of college-directed initiatives to advance community-based educational impact and the distribution of knowledge grounded in Principled Innovation. Presentations focused on communicating instructional models, programmatic innovations, and emerging practices in educator preparation through relational outreach and capacity-building with external partners.

Teaching Experience

- **Teacher, 6th Grade Science and Mathematics**
  ASU Preparatory Academy, Downtown Phoenix — Phoenix, AZ
  October 2022–Fall 2024
  - Supported the design and implementation of the Next Education Workforce blended learning model
  - Designed and facilitated inquiry-based, problem-based, and collaborative STEM lessons using station rotation and blended learning structures
  - Planned and implemented standards-aligned instruction in science and mathematics in coordination with K–6 academic coaches to support pacing, curriculum coherence, and state assessment preparation

- Analyzed student learning data from multiple sources to inform instructional decisions and targeted interventions
- Communicated regularly with students and families regarding academic progress using individualized learning plans (ILPs) and digital instructional platforms
- Facilitated after-school STEM enrichment, including robotics, 3D printing, and coding

- **Teacher, Secondary Science (Grades 7–8), including Cambridge Program**
  Dysart Unified School District — Surprise, AZ
  July 2019–October 2022
  West Point Elementary School (2019–2020; 2022)
  Marley Park Elementary School (2021–2022, Cambridge Program)
    - Designed and implemented standards-aligned science instruction for grades 7–8, including accelerated Cambridge science coursework
    - Facilitated hands-on laboratory investigations emphasizing claim–evidence–reasoning (CER), inquiry, and academic discourse
    - Differentiated instruction to support gifted learners, students with IEPs and 504 plans, and multilingual learners
    - Supported student engagement in STEM through science clubs, district STEM Challenge teams, and enrichment activities
    - Collaborated with grade-level and content-area teams through PLCs and curriculum planning processes
    - Contributed to district-level curriculum and assessment initiatives and supported colleagues in science instruction and assessment practices

- **Teacher, 8th Grade Science**
  East Cleveland School District — East Cleveland, OH
  August 2014–December 2016
  Heritage Middle School
    - Designed and aligned 7th–8th grade science curriculum to Ohio Common Core State Standards
    - Facilitated student learning in a STEM laboratory environment and organized a middle school science fair
    - Implemented differentiated instruction in inclusion-based classrooms to support diverse learners
    - Participated in Teacher-Based Teams (TBTs) and Curriculum Council
    - Served as Teachers Union Representative, supporting faculty collaboration and advocacy

- **Teacher, Secondary Science and Computer Literacy (Grades 9–12)**
  Cleveland Catholic Diocese — Cleveland, OH
  August 2010–June 2013
  St. Peter Chanel High School (2010–2012)
  Cleveland Central Catholic High School (2012–2013)
    - Taught physical science, earth science, and computer literacy across grades 9–12

- Designed and implemented laboratory investigations and real-world, project-based learning experiences
- Secured a $3,500 grant to design and implement a conservation and sustainability curriculum and summer workshop
- Organized student participation in STEM competitions, including a NASA-sponsored event
- Served in additional roles including onsite technology director and facilitator of extracurricular programs

Faculty Leadership, Innovation & Service

Program & Instructional Leadership
- **Curriculum & Course Design (College-Level Service)**
  - **Design, revision, and alignment of graduate-level methods and professional** experience coursework across secondary educator preparation pathways, ensuring instructional coherence, rigor, and alignment with state and institutional requirements.
  - Development of course structures, learning outcomes, assessments, and instructional sequences that support clinical preparation, data-informed instructional decision-making, and disciplinary literacy across content areas.
  - Collaboration with instructional design teams and faculty colleagues to implement and maintain high-quality Canvas course shells, common assessments, and shared instructional resources across multiple sections and delivery formats.
- **Graduate Course & Professional Development Design (College-Level Service)**
  - Serve as lead designer for the creation and ongoing redesign of graduate-level methods and professional experience coursework and professional development offerings across multiple degree pathways and certification programs. This work advances instructional quality, coherence, and rigor while ensuring alignment with evolving state and institutional requirements, including California Teaching Performance Expectations (TPEs).
  - Responsibilities include establishing instructional vision, learning outcomes, and pedagogical structure in collaboration with digital instructional design teams for Canvas implementation.
- **Course Coordination & Instructional Governance (Faculty Service)**
  - Fulfill assigned course coordination responsibilities as part of faculty service, supporting instructional quality, consistency, and coherence across multiple sections, delivery formats, and campuses.
  - Provide faculty leadership and support, oversee common syllabi, assessments, and Canvas course shells, and collaborate with instructional designers, program strategists, and administrators to ensure effective course implementation and alignment with divisional expectations.
- **Lead Supervisor for Professional Experiences (Program-Level Faculty Service)**
  - Serve in a centralized leadership role for professional experience courses, providing instructional, operational, and coaching oversight to support consistency, equity, and student success.

- Coordinate mentor teacher partnerships, guide co-instructors, oversee high-stakes assessments and placements, and serve as the primary point of contact for students, faculty, and professional experience offices.
- Support team-based supervision models and system-level improvements in clinical preparation.

Innovation, Artificial Intelligence & External Engagement
- **CORE Affinity Group Lead – Artificial Intelligence in Education (College-Level Leadership)**
    - Serve as a faculty lead within the CORE Affinity Group on Artificial Intelligence in Education, providing interdisciplinary leadership for collaborative inquiry, innovation, and knowledge-building in educator preparation.
    - Guide faculty and instructional designers in examining AI's implications for teaching and learning, developing shared guiding principles and artifacts, and contributing to college-wide efforts grounded in the Scholarship of Teaching and Learning and Principled Innovation.
- **Faculty Professional Development Leadership – Artificial Intelligence in Educator Preparation**
    - Designed and facilitated a multi-day, paid faculty professional development series focused on responsible and effective integration of generative artificial intelligence in educator preparation.
    - Supported faculty in redesigning courses, developing ethical AI policies and instructional practices, and applying frameworks such as Universal Design for Learning and Principled Innovation to AI-enhanced teaching and learning.
- **XQ Design Principles Digital Tool Evaluation Committee (Faculty Leadership & Service)**
    - Served on a college-level evaluation committee to review and assess digital instructional tools and course assets across graduate educator preparation programs for alignment with XQ Design Principles, including Meaningful Learning and Youth Voice and Choice.
    - Audited courses, identified exemplars, and developed recommendations to guide course refresh, digital learning standards, and faculty professional development for subsequent academic years.

Educational Leadership & Mentorship

- **ASU Preparatory Academy — Phoenix, AZ (2022–2024)**
    - Held multiple teacher leadership roles supporting team-based instruction, mentoring, and implementation of innovative instructional models
    - Led Next Education Workforce team-based and blended learning structures, contributing to instructional coherence and program improvement
    - Served as 6th Grade Team Lead and Next Generation Team Lead, supporting collaborative planning, instructional alignment, and team effectiveness
    - Mentored first-year student teachers, providing guidance on lesson planning, instructional design, classroom practice, and professional growth

- - Designed and facilitated professional development focused on instructional strategies, including math intervention models and progress monitoring
  - Collaborated with colleagues and instructional leaders to support curriculum implementation, data-informed instruction, and continuous improvement

- **Dysart Unified School District — Surprise, AZ (2019–2022)**
  - Held progressively responsible leadership roles at both the school and district levels, supporting science instruction, mentoring, and curriculum development
  - Selected as District-Level Science Mentor, supporting science teachers through coaching, instructional planning, and assessment alignment
  - Served as Gifted Lead Teacher, supporting identification, instructional differentiation, and programming for advanced learners
  - Participated in District Curriculum and Assessment Design Teams, contributing to science curriculum alignment and common assessment development
  - Served as a Peer Mentor, supporting colleagues through onboarding, instructional planning, and professional growth
  - Collaborated with site administrators, instructional coaches, and district leaders to support instructional coherence and improvement initiatives

- **East Cleveland School District — East Cleveland, OH (2014–2016)**
  - Served in instructional and organizational leadership roles supporting science programming and schoolwide initiatives
  - Led the middle school science fair, coordinating student research projects, logistics, and community engagement
  - Participated in Curriculum Council and Teacher-Based Teams (TBTs), contributing to curriculum alignment and instructional improvement
  - Served as Teachers Union Representative, supporting faculty communication, collaboration, and advocacy
  - Collaborated with administrators and colleagues to support instructional planning and school improvement efforts

- **Cleveland Catholic Diocese — Cleveland, OH (2010–2013)**
  - Served in multiple leadership and service roles supporting curriculum development, technology integration, and student engagement
  - Designed and led a summer professional workshop connected to conservation and sustainability curriculum development
  - Served as Onsite Technology Director, supporting instructional technology integration and faculty capacity-building
  - Organized and facilitated STEM competitions and enrichment initiatives, including student participation in a NASA-sponsored event
  - Supported extracurricular and co-curricular programs emphasizing leadership, service, and community engagement

Community & Nonprofit Service

- **Partnership Presentations & Community-Based Impact (Community Service)**

- ○ Deliver partnership-facing presentations as part of college-directed initiatives to advance community-based educational impact and the distribution of knowledge grounded in Principled Innovation.
- ○ Combine relational outreach and capacity-building with external partners to communicate instructional models, programmatic innovations, and emerging practices in educator preparation.

Service to the Profession

- **Curriculum TAG (College-Level Service)**
  - ○ Serve on the Curriculum TAG, reviewing curriculum and advising on alignment, pedagogy, and standards to support instructional quality and coherence across programs.
- **Rainbow Connections Committee Member & Mentor (University-Level Service)**
  - ○ Serve as a committee member and faculty mentor in the Rainbow Connections program, an ASU-wide LGBTQ+ student–staff–faculty mentorship initiative.
  - ○ Provide direct mentorship and support to students, participate in program activities and training, and contribute to institutional efforts that foster belonging, well-being, and inclusive campus communities.

Certifications & Licensure

- Arizona Teaching License: 6–12 Earth Science and General Science (SEI Endorsement)
- Ohio Teaching License: 7–12 Earth Science
- Arizona Department of Public Safety Fingerprint Clearance Card (IVP)
- Certified Hatha Yoga Instructor (200-hour)

Professional Skills & Expertise

- **Generative Artificial Intelligence in Educator Preparation**
  - ○ Design, implementation, and evaluation of generative artificial intelligence–supported instructional planning in educator preparation, with emphasis on lesson coherence, alignment, disciplinary literacy, differentiation, and data-informed instructional decision-making.
  - ○ Applied experience using a range of generative AI platforms to support instructional design, assessment development, professional learning, and reflective practice, including:
    - ■ ChatGPT (advanced prompt design, structured lesson design and planning, instructional scaffolding), Google Gemini, Microsoft Copilot, Claude, Perplexity AI, Canva AI tools, MagicSchool AI (educator-focused AI tools)
  - ○ Development of AI-supported instructional templates, artifacts, and workflows that guide preservice teachers from non-negotiable instructional components (standards, context, student data, accommodations) toward pedagogically sound,

flexible instructional decisions centered around the Science of Learning and Development (SoLD).
- Design and facilitation of faculty and partnership-facing professional development and presentations focused on responsible, ethical, and pedagogically grounded integration of generative artificial intelligence in educator preparation, aligned with Universal Design for Learning, Principled Innovation, and practice-based teacher education.
- Ongoing inquiry into human-centered and developmentally appropriate uses of generative artificial intelligence that enhance—rather than replace—professional judgment, instructional expertise, and reflective teaching practice.

- **Instructional Design & Pedagogy**
  - Standards-aligned lesson and unit design across secondary STEM contexts
  - Inquiry-based, problem-based, and project-based learning
  - Disciplinary literacy and complex text integration in content-area instruction
  - Blended, team-based, and station-rotation instructional models
  - Differentiation for gifted learners, students with IEPs and 504 plans, and multilingual learners
  - Universal Design for Learning (UDL) and whole-child instructional approaches
  - Application of Technological Pedagogical Content Knowledge (TPACK) to instructional planning and design
  - Team-based and distributed instructional models, including the Next Education Workforce (NEW) framework, supporting collaborative planning, role differentiation, and instructional coherence

- **Teacher Preparation, Mentoring & Leadership**
  - Clinical supervision and mentoring of preservice teachers
  - Instructional coaching focused on lesson planning, alignment, and reflective practice
  - Professional development design and facilitation
  - Teacher leadership, team facilitation, and collaborative planning
  - Integration of learning sciences and practice-based teacher education principles

- **Educational Technology & AI Integration**
  - Learning Management Systems: Canvas, Schoology, Classlink
  - Instructional and engagement tools: Nearpod (Certified), Pear Deck, Flip, Zoom, Google Meet
  - Curriculum and content platforms: CK-12, Khan Academy, HMH, Discovery Education, Generation Genius, Kesler Science, FOSS
  - Adaptive and assessment platforms: Edmentum, Lumos, Infinite Campus
  - Generative AI integration to support instructional planning, differentiation, and disciplinary literacy
  - Responsible and ethical use of AI tools grounded in human-centered and developmentally informed instructional decision-making

- **Assessment, Data & Student Support**

- Formative and summative assessment design
- Data-informed instructional decision-making and intervention planning
- Progress monitoring and analysis using multiple data sources
- Response to Intervention (RTI) and multi-tiered systems of support
- Social-emotional learning (SEL) and self-regulation supports
- Restorative and relational practices informed by the International Institute for Restorative Practices (IIRP)

- **Curriculum & Content Expertise**
  - Secondary science education (Earth science, physical science, integrated STEM)
  - Mathematics instruction in middle school contexts
  - Science curriculum alignment and assessment development
  - Integration of literacy, numeracy, and durable skills within STEM instruction

Professional Affiliations

- National Science Teaching Association (NSTA), Member (2024–present)
- Society for College Science Teachers (SCST), Member (2024–present)
- National Middle Level Science Teacher Association (NMLSTA), Member (2024–present)
- Arizona Association of Teachers of Mathematics (AATM), Member (2024–present)
- Arizona Technology in Education Association (AZTEA), Member (2024–present)
- Arizona Science Teachers Association (ASTA), Member (2024–present)
- North American Association for Environmental Education (NAAEE), Member (2024–present)

Additional Leadership Experience

- **United States Army / Ohio Army National Guard**
  Soldier; Unit Supply Sergeant — 1996–2007
  - Served in progressively responsible leadership roles supporting training, logistics, and unit readiness
  - Held Military Occupational Specialties 31U (Signal Support Systems Specialist) and 92Y (Unit Supply Specialist), requiring technical expertise, operational precision, and high-level accountability
  - Led and trained soldiers in communications systems, logistics operations, and standard operating procedures
  - Managed unit-level logistics, property accountability, procurement, and compliance with military regulations
  - Graduated as a Distinguished Honor Graduate from Signal School; honorably discharged at the rank of Corporal

- **Owner / Operator, 360Kelvin Illustration and Design** — 2016–present
  - Founded and managed a creative services business providing illustration, art education, and client consultation
  - Led project planning, client engagement, and delivery of educational and creative products

Published illustrator and award recipient; designed and facilitated instructional workshops and youth art programs