

Adrienne Penullar, MEd, MS

Chemistry Educator · Curriculum Designer · EdD Candidate — Instructional Design

hello@adriannepenullar.com · linkedin.com/in/adriannepenullar · adriannepenullar.com · Avondale, AZ

Educator with 11 years in AP Chemistry and a parallel career as a community college adjunct instructor, curriculum designer, and doctoral researcher. Committed to guided-inquiry teaching where students derive their own conclusions — chemistry is the vehicle, critical thinking is the real subject. Currently completing an EdD in Instructional Design at Trident University International, with dissertation research examining how secondary science teachers perceive print versus digital reading formats and how those perceptions shape classroom decisions.

EDUCATION

Doctor of Education (EdD) — Instructional Design

In progress · Expected 2026–2027

Trident University International · Remote

- Dissertation: Secondary Science Teachers' Perceptions of Print and Digital Reading Format Effects on Student Comprehension and Instructional Decision-Making in a Title I Secondary School District in the West Valley of Arizona
- Theoretical Framework: Cognitive Load Theory (Sweller, 1988)
- Qualitative case study methodology
- Committee: Dr. Carey Ford (Chair), Dr. Emily Mulvihill

Master of Science — Chemistry

January 2018 – May 2019

Grand Canyon University · Phoenix, AZ

- GPA: 4.0
- Relevant coursework: Medicinal Chemistry, Physical Chemistry, Inorganic Chemistry, Analytical Chemistry, Current Topics in Chemistry, Concepts in Biochemistry

Master of Education — Education

August 2015 – November 2017

Teach-Now Educators · Washington, DC

Bachelor of Science — Microbiology

Graduated December 2013

University of Arizona · Tucson, AZ

- Minors: Chemistry and Japanese

TEACHING EXPERIENCE

AP Chemistry & Physics First Teacher

August 2016 – Present

Westview High School, Tolleson Union High School District · Avondale, AZ

- Teach AP Chemistry (3 sections, ~71 students) and Physics First (2 sections) concurrently
- Built a full-year AP Chemistry course aligned to the College Board CED with Canvas-integrated mastery gates, item-banked New Quizzes exams, and a constructivist 'Story of Chemistry' through-line
- Designed the Physics First curriculum from the ground up: 9 sub-plans, evidence-mapped CLO design, guided labs using Vernier Graphical Analysis
- TUHSD Science Curriculum Builder — collaborates district-wide on curriculum planning using Arizona Science Standards
- NHS Chapter Advisor; ACT Test Prep Instructor; Canvas LMS Support Specialist

Adjunct Faculty — Chemistry

August 2019 – Present

Estrella Mountain Community College (EMCC) · Avondale, AZ

- Teach CHM130AA (Fundamentals of Chemistry) and CHM151AA (General Chemistry I)

- Redesigned CHM130AA from 23 RateMyProfessor insights: implemented Google Sites e-Portfolio replacing paper journal, 16-CLO mastery contract, and pooled item-bank quizzes
- Rebuilt CHM151AA syllabus, grading architecture, and Canvas shell with full assignment-to-CLO mapping
- Creates video lessons for flipped-classroom delivery; maintains regular office hours

Content Creator — Chemistry Lessons

July 2023 – Present

Pivot Interactives with Discovery Channel · Remote

- Leads development of comprehensive chemistry lesson plans for nationwide educators on the Pivot Interactives platform
- Conducts peer-review sessions and weekly progress check-ups to ensure alignment with educational standards

RESEARCH

Doctoral Dissertation

2024 – Present

Trident University International

- Investigating secondary science teachers' perceptions of how print versus digital reading formats affect student comprehension and instructional decision-making
- Qualitative case study in a Title I secondary school district, West Valley of Arizona
- IRB preparation underway (Trident IRB / TUHSD HR approval pathway)

CURRICULUM DESIGN & PROJECTS

onlinechemtutor.com — Chemistry Coaching Practice

2026 – Present

- Built and launched a 12-page static HTML coaching site with SEO-optimized city pages, research-backed blog (12+ cited sources per post), and Article schema markup
- Operates a selective semester-based 1:1 coaching cohort (max 6 students) for AP, high school, and college chemistry students nationwide

AnneMade — Curriculum Resources & Educational Materials

2023 – Present

- Designs and publishes classroom-ready chemistry and physics resources through AnneMade and Teachers Pay Teachers
- Metric Conversions Cornell Notes & Case Study (NASA Mars Climate Orbiter context) — color and B&W; fully keyed, substitute-safe

SKILLS & TECHNOLOGIES

Instructional Design & Technology

- Canvas LMS (course architecture, item banks, New Quizzes, CLO mapping, mastery gates)
- Flipped classroom design, guided inquiry, Modeling Instruction
- Google Workspace (Sites, Docs, Sheets, Assignments, Classroom)
- Respondus LockDown Browser, Vernier Graphical Analysis
- HTML/CSS (static site development), PDF production

Languages

- English (native), Tagalog (native), Japanese (conversational)