# Amy S. Bartlett

Clinical Associate Professor • Mary Lou Fulton Teachers College Arizona State University • amy.bartlett@asu.edu

Dedicated educational professional with 28 years of teaching experience at the elementary, secondary, and university level in the state of Arizona. Mentors, coaches, and evaluates instructional practices of preservice and in-service teachers, while promoting rigor, culturally responsive pedagogy, and the universal design for learning. Designs courses, curriculum, and professional development that advocate for rigorous, relevant, and equitable science education for all. Fosters an inclusive and productive learning environment that encourages risk-taking, sensemaking, and problem-solving.

#### Areas of expertise:

Teacher Preparation - Clinical Supervision - Inquiry-based Practices - STEM Integration

# EDUCATION

- M.S. in Space Studies Emphasis: Planetary Sciences University of North Dakota Grand Forks, ND • 2015
- **B.S. in Education Minors: Diversity in Educational Contexts & Environmental Studies** Northern Arizona University • Flagstaff, AZ • 1996

### CERTIFICATIONS

NIET Teacher Evaluator (2015-current) ADE Standard Professional Elementary Teaching Certificate, K-8 (current-2030) ADE Standard Professional Secondary Teaching Certificate, 6-12 (current-2030)

### **PROFESSIONAL EXPERIENCE**

Arizona State University • Mary Lou Fulton Teachers College • Tempe, AZ • August 2015 to current

Clinical Associate Professor – Science Education (2023-current) Clinical Assistant Professor – Science Education (2015-2023)

- Mentor and evaluate 15-20 graduate-level secondary science apprentice teachers in their placements per semester.
- Design and develop syllabi, materials, and Canvas shells for graduate and undergraduate science methods courses (F2F, sync, & online).
- Coordinate graduate and undergraduate-level science methods courses (elementary & secondary).

- Teach preservice and apprentice teachers, facilitate professional learning communities, and conduct webinars.
- Facilitate professional development workshops for in-service teachers.
- Certified NIET Teacher Evaluator and adept in TAP Rubric & Aspiring Teacher Rubric.
- Serve as an Area Lead for Professional Experiences Student Teaching.
- Serve as an Area Lead for Elementary and Elementary Multilingual Education Programs.
- Serve on the SED STEM, EED STEM, and Environmental Education Faculty Search Committees.
- Serve on the Pathways for Advancing Careers and Educational Partnerships Topical Action Group to support districts in generating solutions to workforce challenges.
- Serve on the Student Experiences Topical Action Group and organize high-interest workshops for MLFTC students.
- Collaborate with Teach for America leadership & ASU faculty to plan and deliver Summer Preservice Training for new apprentice teachers.

### Raymond S. Kellis High School • Glendale, AZ • August 2009 to May 2015 Integrated Science Teacher

- Taught Integrated Science exploring Earth/space science, physics, chemistry, and sustainability.
- Led student groups each semester to ASU to deliver MSIP proposals to faculty.
- Served as an AVID site team member and elective teacher to the 2010-2014 cohort.
- Mentored ASU student teachers and interns.

# U.S. Space & Rocket Center • Huntsville, AL • May 2011 to June 2011, June 2012 Teacher Crew Trainer

• Created and conducted workshops for approximately 350 K-12 educators as part of Space Academy for Educators.

# Desert Harbor Elementary School • Peoria, AZ • August 2002 to May 2009 Science Teacher

- Taught four sections of Earth Science annually.
- Instituted Space Academy, Scrabble, and Ambassador Club electives for junior high students.
- Facilitated the school-wide recycling program, advised the Student Council, and coached the girls' volleyball team.
- Organized the schoolwide Invention Convention and took winners to the state competition.
- Led student groups to Hawaii for hands-on exploration of Earth Science curriculum.

### Challenger Space Center • Peoria, AZ • June 2001 to June 2002 Educator Liaison

• Organized educational materials and led teacher workshops and summer camps.

### Copperwood Elementary School • Glendale, AZ • December 1996 to May 2001 Science & Math Teacher

- Created and implemented science and accelerated math lessons conducive to all learning styles.
- Organized the annual science fair, facilitated an outdoor education retreat, and led student tours to Washington D.C.
- Instituted a school-wide Pop-Top Challenge to build a visual representation of one million.

# UNIVERSITY TEACHING

### Arizona State University

- EED 411 Science in Elementary Schools (2023-2024)<sup>(h)</sup>
- SED 571 Apprentice Teaching I (2021-2024) <sup>□</sup>
- SED 579 Apprentice Teaching III (2023)
- SED 513 Science Teaching Methods for Secondary School (2015-2023)
- EED 529 Science Methods & Assessment (2016-2023)
- TEL 510 Instructional Design, Planning, & Assessment (2022)
- SED 574 Apprentice Teaching II (2022-2023)
- SED 579 Apprentice Teaching IV (2016-2022)
- SED 579 Apprentice Teaching III (2015-2021) \*\*=
- SED 579 Apprentice Teaching II (2016 2021)
- SED 579 Apprentice Teaching I (2015-2020)
- EED 598 Topic: Science Methods & Assessment in Elementary Schools (2021) <sup>(h)</sup>
- SED 501 Introduction to Effective Instruction (2021) <sup>(h)</sup> &
- SED 544 Creating Classroom Climates (2021) <sup>(h)</sup> &
- SED 533 Middle/Secondary Instruction, Management, and Assessment (2016-2020) <sup>(h)</sup> and (h) and
- ECS 411 IMYC: STEM (2019)
- EED 411 Science in Elementary Schools (2018-2019)
- SED 522 Secondary School Curriculum Development (2018)<sup>(h)</sup>
- SED 111 Exploration Science Teaching (2017)
- SED 561 Teaching Science with Technology (2016)
- SED 322 Classroom Leadership in Secondary Schools (2015-2016)
- SED 464 Middle School Curriculum & Organization (2015)

In addition to F2F, taught in these modalities: hHybrid; Sync; Online

# **COURSE COORDINATION**

### Arizona State University

- EED 411 Science in Elementary Schools (2017-current)
- TEL 598 Advanced Science Teaching Methods in Elementary School (2021-2023)
- EED 529 Science Teaching Methods for Elementary School (2017-2023)
- SED 513 Science Teaching Methods for Secondary School (2015-2023)
- SED 520 Science Methods for Early Adolescence (2019-2020)
- SED 561 Teaching Science with Technology (2015-2020)

# COURSES DEVELOPED AND REDESIGNED

### Arizona State University

### EED 411 Science in Elementary Schools (2022)

As part of the EED program redesign and movement to Term 7, I revised the EED 411 syllabus with regard to course overview, course objectives, standards alignment, course calendar, common assessment details, common assessment

PLO/standards alignment and hashtags, assignment description, and assignment rubric. I also created a 15-week course developmental shell complete with readings, course assignments, rubrics, and slide decks.

### TEL 598Advanced Science Teaching Methods in Elementary School (2021-2022)

I created this 1.0-credit course to follow EED 529 as an elective class in the graduate program to support continued development of a balanced and articulated science program focusing on scientific argumentation and inquiry-based teaching methods. The 7.5-week online syllabus for TEL 598 was developed as part of the MLFTC graduate program redesign in Summer 2021. The Canvas shell, course materials, and slide decks were developed in Spring 2022.

# EED 529Science Teaching Methods for Elementary School (2020-2022)<br/>formerly Science Methods & Assessment

I developed a 15-week face-to-face syllabus and a 7.5-week online syllabus for the 2.0-credit EED 529 course as part of the MLFTC graduate program redesign in Summer 2020. I then developed a Canvas shell and course materials for both versions of the course in Fall 2021. Revisions occurred in Spring & Summer 2022.

### SED 513 Science Teaching Methods for Secondary School (2020-2022)

As part of the MLFTC graduate program redesign in Summer 2020, I developed a 4.0-credit, 15-week face-to-face syllabus and a 4.0-credit, 7.5-week online syllabus for SED 513. Then I developed SED 513 learning experiences and Canvas course shells for both versions of the course in Spring 2021. The first implementation was Fall 2021. Revisions occurred in Spring & Fall 2022.

### EED 411 Science in Elementary Schools (Summer 2019)

I developed a new syllabus, calendar, and Canvas developmental shell for the new EED 411 hybrid course offered on all ASU campuses. EED 411 was also aligned with Term 5 courses. Coordinators collaborated to achieve common expectations and verbiage in syllabi (late/missing assignments, attendance/participation). I also aligned Key Transformational Elements (KTE) and Principled Innovation (PI) framework components to EED 411 student learning outcomes (SLOs).

### EED 529 Science Methods & Assessment (Summer 2019)

I redesigned the EED 529 syllabus and aligned Key Transformational Elements (KTE) and Principled Innovation (PI) framework components to EED 529 SLOs.

# **SED 579** Apprentice Teaching (Summer 2019) As part of the graduate program redesign, I collaborated with other InMAC faculty to redesign Y1S1, Y1S2, Y2S1, and Y2S2 syllabi, the Community of Practice (COP) menu, Planning Narrative prompts, Professional Growth Plan components, and Post-conference reflection questions.

#### EED 411 Science in Elementary Schools (Summer 2018) I developed a syllabus, calendar, and Blackboard developmental shell for the new EED 411 hybrid course offered at West campus.

### **PROFESSIONAL TRAINING & WORKSHOPS**

- NASA Psyche Educator Workshop September 2023
- Sonia Training October 2021
- Aspiring Teacher Rubric Training May 2021
- APARS ASU Vita: Orientation (Live Zoom) November 2020
- Jamboard Workshop September 2020
- GoReact Workshops & Training May, June, July, & August 2020
- Distance Learning Webinar with Meredith Toth July 2020
- Sync Workshop (2 weeks) July 14 26, 2020 (attended live workshops on 7/14, 16, 21, 23); completed all exercises; earned 10 digital badges/credentials (6 modules + 4 live workshops)
- The Connected Faculty Summit July 2020
- Planetary Protection and Lunar Activities July 2020
- SEL and STEM: Building Empathy to Help Solve World Problems June 2020
- Snagit & MediaAmp May 2020
- Perseverance 2020 with Dr Ken Williford May 2020
- NASA ARES Webinar Astronaut Photography Application April 2020
- Zoom for Teaching March 2020
- Explore 3-Dimensional Learning Through the Arizona Science Standards November 2019, January 2020
- Exploration Learning Workshop May 2019
- Makey Makey Training January 2019
- Canvas Training December 2018, January & May 2019
- Interplanetary Initiative Inquiry Learning Workshop December 2018
- Google for Education, EdTechTeam Paradise Valley Summit June 2018
- Intrapreneurship & Character Education Training August 2017
- Space Exploration Educators Conference February 2012, 2013, 2015, 2017
- TAP Training June 2016
- 100Kin10 Summit April 2016
- Blackboard Training August 2015
- NASA MESSENGER Educator Fellowship June 2010-2015
- Civil Air Patrol Member June 2011-2015
- Honeywell's Green Boot Camp June 2013
- The Challenge of Discovery Educator Workshop April 2013
- NASA Lunar Workshop for Educators August 2011
- Suborbital Astronautics, Teachers In Space July 2011
- Honeywell's Advanced Space Academy for Educators June 2009
- Honeywell's Space Academy for Educators June 2008
- ASU Mars Conference September 2005, 2008, 2009

### PRESENTATIONS

- Bartlett, Amy (2024). *5E Inquiry Method & Engineering Design*. Presented two workshops at TFA-ASU Partnership to 25 elementary and 24 secondary pre-service teachers, Western School of Science & Technology.
- Bartlett, Amy (2024). *Women in STEM Night*. Served as a panelist representing ASU and women in STEM with 4 other women who range from physicists to engineers to higher-ed professors, Basis Phoenix.
- Bartlett, Amy (2024). *5E Inquiry Method & Engineering Design*. Presented two workshops at Mesa Path2Teach Spring Conference to 18 elementary and 3 secondary inservice teachers, Mountain View High School.
- Bartlett, Amy (2024). *Save Fred, Static Flyer, & Pop Rockets*. Presented three hands-on activities/investigations for 100+ K-8 students attending the school's inaugural Science Expo, Imagine Prep Camelback.
- Bartlett, Amy (2024). *5E Inquiry Method & Engineering Design*. Workshop presented at iTeach Conference to 24 6<sup>th</sup>-12<sup>th</sup> grade science teachers from Imagine Schools and Prep Schools, Imagine Prep Superstition.
- Bartlett, Amy (2023, 2022). *5E Inquiry Method & Engineering Design*. Workshop presented at Teach for America Summer Institute to 50/19 new secondary science, math, ELA, and social studies apprentice teachers, Western School of Science & Technology.
- Bartlett, Amy. (2019). *5E Inquiry Method & Engineering Design*. Workshop presented at Teach for America Phoenix Rising Summer Institute to approximately 25 new InMAC secondary science and math teachers, Western School of Science & Technology.
- Bartlett, Amy. (2019). Various inquiry-based lessons and engineering design challenges. Workshop segments presented at *Teaching Inquiry-based STEM Science (TIBSS)* with Dr. Molina Walters & Kevin Rolfe (SRP) to approximately 30 in-service and preservice teachers, Arizona State University - Polytechnic Campus.
- Bartlett, Amy. (2019). *5E Inquiry Method*. Workshop presented at ASU/Interplanetary Initiative Exploration Learning Workshop to approximately 40 ASU faculty members from various colleges and disciplines, Arizona State University.
- Bartlett, Amy. (2019). *What is Exploration Learning?* Workshop segment presented at ASU/Interplanetary Initiative Exploration Learning Workshop to approximately 40 ASU faculty members from various colleges and disciplines, Arizona State University.
- Bartlett, Amy & Clausen, Jennifer (2018). *Co-Teaching: Communication and Consequences*. Workshop presented at Creating a Culture of Character Conference, Arizona State University.
- Bartlett, Amy (2018). *Instructional Planning*. Workshop presented to Year 1 General SED InMAC students, Arizona State University.

- Bartlett, Amy (2016-2018). *Welcome to Apprentice Teaching*. Workshop presented to Year 1 Science Cohorts at InMAC Orientation, Arizona State University.
- Bartlett, Amy. (2017). *Effective Instructional Strategies*. Workshop presented at InMAC Orientation Summer Institute to all new general InMAC teachers, Arizona State University.
- Bartlett, Amy & Walters, Molina (2017). *NES Test Prep: Middle Grades General Science*. Workshop presented at Cortez High School to preservice and apprentice educators preparing for the NES exam.
- Bartlett, Amy (2015). *An Analysis of Ice Mounds in the Northern Latitude Craters of Mars.* Poster presentation of independent study work, University of North Dakota.
- Bartlett, Amy & Bulikhov, Denys & Colberg, Giovanni & Evans, David & Khatri, Manish & Leute, Holden & Oehmke, Robert. (2015). *Venus In-Flight & Surface In-Situ Observation Network (VISION)*. Presented our Discovery Mission proposal to Dr. Michael New, NASA Astrobiology Discipline Scientist and Discovery Program Director.
- Bartlett, Amy (2015). *From Fire to Ice: An Exploration from Mercury to Pluto using Photometry*. Presented at the Space Exploration Educators Conference.
- Bartlett, Amy (2014). *Exploring Icy Worlds*, MESSENGER Professional Development offered to PUSD#11 teachers.
- Bartlett, Amy (2013). *NASA MESSENGER EPO Team Accomplishments*, MESSENGER Science Team Meeting, Washington D.C.
- Bartlett, Amy & Gilmore, Marian (2013, 2012). *L.U.N.A.R. Eggs-Prize (Landing Unique Navigable Astronaut-controlled Rovers)*. Presented at the Space Exploration Educators Conference.
- Bartlett, Amy (2012). *A Model Moon* and *L.U.N.A.R. Eggs-Prize*. Presented at Space Academy for Educators, U.S. Space & Rocket Center, Huntsville, AL.
- Bartlett, Amy (2011). *Going Through a Phase & Personal Constellations*. Presented at Space Academy for Educators, U.S. Space & Rocket Center, Huntsville, AL.
- Bartlett, Amy (2010). Journey Through the Solar System: *Going Through a Phase & Our Solar System*, MESSENGER Professional Development offered to PUSD#11 teachers in November.
- Bartlett, Amy (2010). *Distance & Inclination: My Angle on Cooling*, MESSENGER Professional Development offered to PUSD#11 teachers in October.
- Bartlett, Amy (2010). *NASA MESSENGER EPO Team Accomplishments*, MESSENGER Science Team Meeting, Washington D.C.

### HONORS, AWARDS & GRANTS

- ASU MLFTC Excellence in Teaching Award, September 2023
- Perfect Scores on the Division Director Annual Performance Evaluation of Teaching, 2017, 2019, 2020, 2021, 2022, 2023
- Aerospace Educator of the Year, Civil Air Patrol Arizona Wing, June 2014
- Honeywell's Advanced Space Academy for Educators, June 2009
- The Right Stuff Award, Honeywell's Space Academy for Educators, June 2008
- \$1000 Recipient at Avnet Science & Technology Fair, April 2007
- Peoria Educational Enrichment Foundation Grant Recipient, 2006

### **PROFESSIONAL AFFILIATIONS**

- National Science Teachers Association, 2015-current
- Peoria Education Association, 1998-2015
- National Education Association, 1998-2015

### EVIDENCE OF EXCELLENCE IN SERVICE ... INSTITUTIONAL SERVICE

### Professional Experience Lead – Student Teaching (January 2024 – current)

- Co-developed the new undergraduate supervision model implemented in fall 2024.
- Designed the ASU Teaching Observation Instrument (TOI), used by mentor teachers to evaluate student teachers in their placement settings.
- Redesigned the performance assessment cycle for single- and dual-certification students.
- Created the Plan, Teach, Reflect, and Improve (PTRI) Model for continuous improvement used in all performance assessment cycles.
- Redefined the roles of mentor teacher and student teaching supervisor.
- Led meetings to inform student teaching supervisors of changes and conducted focus groups to get input on the PTRI cycle.
- Developed presentations and communication templates to be used by supervisors to communicate expectations to student and mentor teachers.
- Created the Mentor Acknowledgement Form to ensure that mentors understand the expectations of the role.
- Modified the TEL 488 and TEL 471 syllabi, calendars, and Canvas developmental shells.
- Meets regularly with co-lead to develop, launch, and maintain the program and provides deliverables/updates to Division Strategist and Associate Division Director.

# SED STEM Education Faculty Search Committee, Chairperson (May-June 2024)

- Communicated regularly with 3 committee members, Associate Director of Fiscal and Business Operations, and the Vice Dean.
- Revised job posting, designed initial rubric, and adapted interview questions.

- Held meetings to collaborate on rubric, interview questions, final rankings, and candidate selection.
- Screened 11 applicants and coordinated with the Business Operations Specialist to schedule interviews.
- Interviewed 5 applicants, conducted reference checks, and recommended 2 candidates for hire with rationale.

### EED STEM Education Faculty Search Committee (May-July 2024)

- Assisted in rubric design for applicant review.
- Screened 21 applicants and interviewed 7 over two search rounds.
- Met with committee members to discuss rankings and recommend candidate for hire.

### **Environmental Education Faculty Search Committee (May-July 2024)**

- Assisted in rubric design for applicant review.
- Provided interview and reference check questions for modification and use.
- Screened 5 applicants and interviewed 2 in one search round.
- Met with committee members to discuss rankings and recommend candidate for hire.

### EED/EME Area Program Lead for the Undergraduate Program (2023-2024)

- Led the EED/EME Program Area Pathway across Division 1 Teacher Preparation.
- Communicated regularly with dedicated Division Strategists, Area Team Leads, Area Co-Leads, and approximately 50 EED/EME faculty Area faculty.
- Informed Area faculty of specific updates via email, Slack, and in-person.
- Planned, developed, and facilitated breakout meeting for EED/EME faculty at monthly college meetings.
- Communicated recommendations to the Division Strategist for course coordinators.
- Participated as a PACE TAG member bi-monthly and communicate developments with EED/EME faculty.
- Planned/participated in student orientations/welcomes.
- Coordinated with CI TAG and operations to ensure timely completion of regulatory and compliance requests.

# Pathways for Advancing Careers and Educational Partnerships Topical Action Group (PACE TAG) for the Undergraduate Program (2023-2024)

- Attended monthly meetings to analyze, understand, and improve partnership relationships, outreach, and pathway growth opportunities.
- Focused on systems thinking, designing, and decision making in order to create solutions that support the growth and development of local, statewide, and national partnerships.

# Introduction to Inquiry-based Methods & Engineering Design Presenter (June 2018, 2019, 2022, 2023, 2024)

• Presented Inquiry & Engineering Design lesson at various learning institutions as an introduction to science methods and using the 5E Method (see *Presentations* for a complete list). Designed the lesson and activity and furnished all the materials. Introduced myself to new students prior to ASU orientation to help build relationships and put them in touch with future faculty.

### **Curriculum Reviewer for the Higher Education Partnership - Morocco (December 2023)**

• Reviewed the Science Analysis of Professional Practice syllabus and course content. Assessed course according to the MLFTC curriculum development rubric and provided feedback for improvement.

# **Student Experiences Topical Action Group (TAG) member for the Graduate Program** (2020-2023)

- Served as the Student Orientation Coordinator for the Grad Program (2022).
- Collaborated with Dr. Katie Farrand, Dr. Jessica DeBiase, and the Student Services Team to deploy five different co-curricular engagement opportunities to enhance the overall learning experience for undergraduate and graduate students (2021-2022).
- Collaborated with Pam Clark to bring high-interest workshops to graduate students (2020-2021).
  - Developed the *Graduate PDs by Students for Students* that allowed nominated students to present their "teaching superpowers" to other students through mini-workshops (March & April 2021).
- Distributed Inspirational Wednesday Emails weekly to staff (spring 2021).
- Collaborated with three faculty to provide access to AEPA Test Prep materials to graduate program Canvas shells (2021).
- Met with Coordinated Care Strategist in the Office of Student Services to identify ways that the SE TAG can support efforts related to student concerns and issues. Solicited interested grad faculty and volunteered myself (2020).
- Attended Grad TAG meetings to report on progress of SE TAG and learn of other TAG events and accomplishments.

### Virtual Body Collaborator & Demonstrator (2020)

• Collaborated with a representative of *Virtual Body* to develop a presentation to demonstrate and practice using available software with SED 513 students.

### **Beagle Learning - Peer Review Experimenter (2019-2020)**

• Collaborated with co-founder of Beagle Learning (affiliated with ASU Interplanetary Initiative) to develop and implement a peer review process in SED 513, EED 529, and EED 411 for three major assignments.

# *Teaching Inquiry-based STEM Science (TIBSS)* Summer Workshop Presenter (June 2018, 2019)

• Co-facilitated and presented at *Teaching Inquiry-based STEM Science* summer workshops for in-service and preservice educators at ASU Poly. Collaborated with Dr. Molina Walters (ASU) & Kevin Rolfe (SRP). Designed PowerPoints, organized materials, modeled instruction, and facilitated learning activities throughout the weeklong workshop.

### ASU MLFTC Creating a Culture of Character Presenter (2018)

• Presented *Co-Teaching: Communication and Consequences* with Dr. Jennie Clausen at the Creating a Culture of Character workshop. Presented the pros and cons that we encountered in co-teaching SED 522 in fall 2018 and the results of student surveys from an IRB study. Assembled data, developed the slide deck, and facilitated workshop discussions and activities.

### **NES Certification Test Prep Instructor (2017)**

• Developed presentation, assembled materials, created Blackboard shell, and taught at the MLFTC Certification Test Preparation Workshop for Middle Grades General Science at Cortez High School on July 15.

### **STEM Professional Development Facilitator (2017)**

• Facilitated Site Coordinator STEM Professional Development with Dr. Molina Walters on May 23 at ASU Skysong.

### **DiscoverE Day Facilitator (2016)**

• Helped supervise and facilitate DiscoverE Day offered by MLFTC and Ira A. Fulton Schools of Engineering on February 12, 2016 at the Tempe Campus and April 1, 2016 at the Polytechnic campus; approximately 2,500 elementary students in attendance from Valley schools (both events).

### STEM Technology Collaborator & Integrator (2016)

• Collaborated with Dr. Shawn Jordan (STEAM Lab), Mark Beckett (PBS/ASSET), Larry Dukerich (Vernier), Wendy Hehemann (AMTA), and LeeAnn Lindsey (MLFTC) to bring various STEM technologies into SED 561.

### **STEM Experience Facilitator (2015)**

• Helped supervise and facilitate STEM Experience offered by MLFTC and Ira A. Fulton Schools of Engineering on November 6, 2015 at the Polytechnic Campus; approximately 100 high school students in attendance from Valley schools.

### Supporter of Student Success (ongoing)

- Participate in all MLFTC Convocation Ceremonies, even as an atrium greeter during the pandemic.
- Write letters of recommendation for students and faculty, most of whom obtain soughtafter jobs, doctoral positions, promotions, and MLFTC awards/accolades.
- Took on additional students regularly each spring semester to help offset changes within the InMAC/grad program and/or evaluate the teaching of SED 513 inquiry-lessons for their Professional Experiences Performance Assessments.
- Completed Title II goals for STEM courses and graduate program courses and provided input on science standard alignment to technology standards (2020-2022).
- Gave regular input and helped modify SED 579 Apprentice Teaching (now Professional Experiences courses) syllabi, templates, and assignments.
- Attended and participated in optional Communities of Practice (2021-2022).
- Coordinated six science methods courses since 2015. Held instructor meetings, perform regular check-ins, and provide resources needed to successfully teach each course. Also attended course coordinator meetings and independently completed redesign work for undergraduate and graduate, elementary and secondary, science courses.
- Collaborated with the Advising team to plan InMAC/MAC orientations, participated in virtual orientations, and organized faculty to lead breakout sessions (2020-2021).
- Participated in Tech Infusion meetings and Summer Equity Reading Group.
- Attended TFA celebration dinners, student symposiums, & iTeach Research Walks.
- Attended planning meetings, designed slide decks, obtained student alumni for Q&A sessions, facilitated check-in, and presented workshops at InMAC orientations.

- Participated in the Sanford Inspire Module Experiment to improve the quality of educational materials available to ASU students and faculty.
- Served as an ambassador to valley schools and administration in the InMAC program.

# **PROFESSIONAL SERVICE**

### NSTA member (2015-current)

### **Orbital Reef UAC Societal Connections Subcommittee (2022-2024)**

• Collaborated with Interplanetary Initiative, faculty from 15 universities, and Blue Origin and Sierra Space scientists to develop STEM outreach and educational programs for Orbital Reef, a low-Earth orbit space station set to launch by the end of this decade.

# ASU Interplanetary Initiative (2017-2020)

- Represented MLFTC at ASU Interplanetary Initiative Meetings to launch a multidisciplinary, collaborative effort to advance society through exploration.
- Attended and participated in Interplanetary Initiative "big questions" meetings, quarterly meetings, and inquiry learning workshops led by Dr. Lindy Elkins-Tanton, I.I. Vice President and SESE Foundation & Regents Professor.

# **Exploration Learning Workgroup (2018-2020)**

- Branched off of the Interplanetary Initiative with the goal to introduce inquiry-based methods to professors of all colleges and disciplines at ASU.
- Attended regular meetings and collaborated with Dr. Evgenya Shkolnik (SESE), Dr. Lance Gharavi (School of Film, Dance, & Theater), and Dr. Lindy Elkins-Tanton (SESE) on advancing inquiry-based methods at ASU.
- Co-facilitated and presented at the Exploration Learning Workshop in ISTB4 with Evgenya Shkolnik & Interplanetary Initiative (May 2019).
- Interviewed about Exploration Learning for a promotional video for I.I.

# **Beagle Learning - Peer Review Experiment (2019-2021)**

- Collaborated with Beagle Learning staff to implement a peer review process in science methods courses for three major assignments.
- Shared rubrics and helped develop the collaborative student folders in Google Drive.
- Reported on the efficacy of peer review in improving student work and scores.

# Teaching Science is Phenomenal! Participant (November 2019, January 2020)

• Represented ASU MLFTC at the professional development workshop sponsored by Salt River Project & AZ Department of Education. Worked with educational professionals from around the state to practice 3-dimensional learning and active sense-making.

# Space Exploration Educators Conference Participant & Presenter (2012, 2013, 2015, 2017)

• Attended SEEC at Space Center Houston and presented space science workshops to educators at three out of the four visits.

### 100Kin10 Summit Fellow (2016)

• Attended 100Kin10 Summit in Houston, Texas as a fellow from ASU. Collaborated with other faculty and business professionals from around the nation in an effort to elevate STEM education and produce 100,000 STEM educators over the next 10 years.

### Arizona Association for Environmental Education (AAEE) Meet and Greet (2016)

• Attended event to support the ASU Environmental Education Program of Distinction Certificate and possible future state EE certification collaborations.

### NASA MESSENGER Educator Fellow (2010-2015)

- Conducted professional workshops on a national level at the U.S. Space and Rocket Center and at Space Center Houston, as well as on a local level through the Peoria Unified School District, in an effort to educate teachers about the NASA mission and the educational resources available to them.
- Brought forth ideas and provided feedback on the implementation of lessons as a member of the MESSENGER Education & Public Outreach Team.

# **GOVERNMENT/COMMUNITY SERVICE**

### Panelist for Women in STEM Night (2024)

• Represented ASU and women in STEM with four other women who range from physicists to engineers to higher-ed professors. Basis Phoenix – April 5, 2024

### Science Expo Activities Facilitator (2024)

• Led three hands-on activities/investigations for 100+ K-8 students attending the Imagine Prep Camelback Inaugural Science Expo. Managed student volunteers who acted as facilitators – March 6, 2024.

### ADE K-12 Science Standard Workgroup (2017)

• Served on the science standard workgroup and attended five sessions to actively revise Arizona's science standards for Board review – February 22, March 22, June 28, October 18, November 6, 2017

### Girl Scout Gold Award Mentor (2020)

• Assisted Girl Scout in Gold Award Project by communicating with local school district officials and putting her in touch with the superintendent and public relations manager – March-July 2020

### Science Fair Judge (2016-2020)

- Judged Hamilton Invitational Science and Engineering Fair (HISEF) February 2018, 2020
- Judged St. Jerome Science Fair March 2016, 2017

### Girl Scout Leader & Science Mentor for Troop #60 (2015-2019)

• Assisted Girl Scouts with their Silver Award Project of creating a scaled solar system hike at Lake Pleasant Desert Outdoor Center (2017).

• Escorted Girl Scouts to the LPDOC twice a year in conjunction with the Stargazing for Everyone events, where they offered guided tours of their scaled solar system hikes as an extension of their Silver Award (2018-2019).

### Keep Nature Wild Beardsley Canal Cleanup Participant (2019)

• Cleaned and cleared refuse from an illegal dumping site in an effort to restore the desert ecosystem and assist the Arizona State Trust Lands Department. With 91 others, hauled out 14,620 pounds of trash.

# Introduction to Rocketry Presenter (2018)

• Presented an introductory rocketry workshop at Agua Fria High School NASA Club and furnished materials for students to build and launch bottle rockets.