MATHEMATICS EDUCATOR



KEY SKILLS

Edu Technology



Research



Collaboration



Instructional Design



Training





ABOUT ME

Creative and passionate scholarly practitioner dedicated to developing instructional design processes in supporting STEM educators with educational technologies for use in teaching and learning.

CONTACT

Phone

(724) - 680 - 2475



h LinkedIn /ScarlettN88

HIGHLIGHTS

Professional Development, Technology Project Manager, Education Technology Trainer, Instructional Leadership (*Mathematics, Technology*), Data Analysis (*Qualitative/Quantitative*)

EXPERIENCE

Field Supervisor | Duquesne University (Math Edu) | 2025-Present

- Facilitate mathematics field experience for pre-service teaching K-2.
- Restructure the math field experience to align with department objectives guiding the learning experience during student field visits.
- Mentor future teachers with best-practices for K-2 mathematics through reflections, teaching, lesson planning, and field observation visits.

Instructor | Slippery Rock University (Math) | 2024-Present

- Collaborate with algebra and calculus team to align content meeting course objectives serving as a bridge between the maths.
- Evaluate polling software via pilot program
- Structure active learning instructional practices for students in reasoning courses.
- Serve on the CES Community and Culture Committee.

Teaching Assistant Professor | Duquesne University (Physics) | 2023-2024

- Redesigned program assessment rubrics with assessment team.
- Mentored teaching assistants and PK-8 pre-service teachers to become better physics educators.
- Developed algebra-based physics instructional practices for students in the health sciences.
- Served on the Open Education Award Committee



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EXPERIENCE CONTINUED

Edu Tech Application Specialist | Duquesne University (Law) | 2021-2023

- Assembled teams and developed architecture and process deploying instructional technologies.
- Developed and implemented programs and web resources for the improvement of teaching and dissemination of research-based teaching strategies.
- Empowered knowledge transfer and ownership to faculty, staff, and students for online, hyflex, and traditional course delivery.
- Collaborated with faculty, administration, and university departments to identify professional learning needs with educational technologies.

Instructor | Duquesne University (Education) | 2017-2020

- Redesigned traditional mathematics (content and pedagogy) courses to an online-rich format.
- Facilitated practicum where pre-service teachers researched and applied best-practices to their classes.
- Evaluated curriculum to align with content addressing CCSS and 21st century learners.
- Coordinated instructional materials based on evidence-based practices promoting critical thinking, collaboration, communication, and creativity.

Teacher (Mathematics) | Hillel Academy | 2018-2019

- Orchestrated effective instruction to students individually and in small groups.
- Created an interactive learning experience with technology applications such as Desmos, Khan Academy, and TI software.
- Oversaw courses of different levels of mathematics, including geometry, integrated mathematics, and precalculus.

Teacher (Math & Science) | Huntington Learning Center | 2010-2017

- Coached new teachers to strengthen and improve skills necessary for educating students.
- Revised curriculum with other teachers by observing what promotes student success.
- Formulated individualized instruction for all ages, specializing in test prep and subject tutoring.
- Implemented a positive discipline plan promoting student accountability, self-confidence, problem solving skills, and improve student grades.

TOOLS

Learning Management

Canvas, Blackbaord Collaborate, Blackboard, D2L, Google Classroom

Assessment Software

ExamSoft, My Math Lab. WileyPLUS

Multimedia Editing

Camtasia, Mediasite, iMovie/Final Cut, Adobe Suite

Data Analysis Software

SPSS, Atlas.ti, Qualtrics

Instructional

Design/Technology

Visme, Prezi, Focusky, Glogster, HP Reveal, Marvel App, Storyboard That, Kahoot, Ed Puzzle, Nearpod, AR/VR, Google Sites, Google Suite, Microsoft Suite

Communication Tools

Zoom, Teams, Google Meet, Slack





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EXPERIENCE CONTINUED

Instructor | Slippery Rock University (Mathematics) | 2016-2017

- Implemented technology in the classroom, including digital image projection and computer assessment software (My Math Lab).
- Restructured prerequisite flipped course using data-driven approaches to ensure student success in core courses (Calculus, Algebra, Math as a Liberal Art, K-8 Mathematics for Pre-Service Teachers).
- Examined student scores, class work, and survey input to adapt methods and meet student needs.

Substitute Teacher (Mathematics) | PA Cyber Charter School | 2016

- Established engaging lesson plans that aligned to academic standards and assessment anchors.
- Expedited live tutoring sessions and communicated student performance regularly with academic advisors, students, and families virtually.
- Guided group discussion through multimedia including, polls, videos, and projects

Teacher (Math, Sci, Computer) | Jefferson County School | 2012-2015

- Pioneered a college prep math program diagnosing individual abilities.
- Cultivated student success on standardized tests and academic grades through a variety of techniques including lecture, front-loading, group work and interdisciplinary projects.
- Spearheaded Precalculus and Geometry summer courses advancing students in their math careers.

ORGANIZATIONS



National Council of Teachers of Mathematics



Association for Educational Communications & Technology



EDUCATION

Doctor of Education in Instructional Technology and Leadership

Duquesne University

2017 - 2022

Research focused on the development of a professional development initiative for instructional leaders (STEM) with regard to available technologies (i.e. mobile technology).

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REFERENCE

ASSOC PROF | DUQ

Dr. Rachel Ayieko

ASSOC PROF | DUQ

Dr. Simonetta Frittelli

ASST DEAN | DUQ

Dr. Mark Dunn

Contact information for references available upon request



EDUCATION CONTINUED

Master of Science in Instructional Leadership; conc. in Math Education Robert Morris University

2011 - 2012

Research concentrated on incorporating context-rich problems into curricula with available technologies using an inquiry-based approach.

Bachelor of Science in Applied Mathematics; conc. in Math Education Robert Morris University

2011

Program centered on foundational knowledge in advanced mathematics and statistics with a set of core experiences in professional education.

Commonwealth of Pennsylvania Professional Certificate | Mathematics 7–12

RESEARCH & PUBLICATIONS

Scarlett, N., & Carbonara, D. D. (2024). Using Artificial Intelligence to Promote Post-Pandemic Transformational Learning Experiences. In *Exploring Technology-Infused Education in the Post-Pandemic Era* (pp. 462-488). IGI Global.

Scarlett, N. A. (2022). On Your Marks, Handset, Go: An Illustrative Case-Study of a Professional Development Initiative About Mobile Learning. [Doctoral dissertation, Duquesne University]. Retrieved from https://dsc.duq.edu/etd/2101

Alarbi, T., Alghamdi, N., Beaulieu, L., Meepegama, M., Scarlett, N., Vanorsdale, C., & Van Campenhout, R. (2018). Connectedness in an online doctoral program: Building community and advancing understands as emerging scholars. *E-Learn 2018 Proceedings*.

Scarlett, N. A. (2024). *Improving Mobile Technology Practices to Accommodate 21st Century Learning*. [Manuscript in preparation]. Education, Duquesne University.

Matthews, N. A. (2012). *Incorporating Context-Rich Problem-Solving into Lessons*. [Unpublished master's thesis]. Robert Morris University.