



VITAL Instructional Minigrant Awards 2022-2023

Join us in congratulating our faculty colleagues who were awarded instructional minigrants for their innovative, learning-focused projects. We wish them the best as they work on their projects this summer.



Dr. Paul Bernhardt, Mathematics & Statistics: *Problems with Data: Using Real-world Challenges to Enhance Instruction for Regression Methods.* Addresses an existing gap in the Applied Statistics Master's curriculum and aims to enhance the students' proficiency in managing and analyzing the messy datasets that they will encounter in their future jobs.



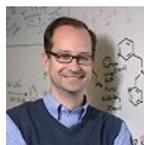
Dr. Mary Ann Cantrell, M. Louise Fitzpatrick College of Nursing: *A Virtual Quantitative Methods Bootcamp.* Helps refresh the doctoral nursing students' statistical knowledge in preparation for their enrollment in two required application-focused quantitative research methods courses.



Drs. Allyson Levin & Thomas Ksiazek, Communication: *Engaging Social Justice in Quantitative Research in Communication.* Redesigns an advanced, required communication research course by applying a quantitative data analysis framework to the intersection of communication and issues of social justice and social change. Social justice focus aims to make course meaningful to students.



Dr. Elizabeth-Jane McGuire, Augustine and Culture Seminar (ACS) Program: *Building Discussion Skills in Students Through Student-Led ACS Seminar.* Investigates the Spider Web Discussion technique for ACS course to facilitate more equitable, student-led discussions and help students develop identifiable discussion skills that can be reviewed and assessed.



Drs. Jessica Stuart Myers & Kevin Minbiole, Chemistry: *Reimagining the Freshman Nursing Chemistry Experience.* Revises CHM 1131 and 1134 by restructuring topics, redesigning lectures, and introducing case studies into the curriculum that will support the future development of a 1-semester general, Organic and Biological Chemistry course. Aims to enhance the accessibility of chemistry to nursing students and illustrate the importance of chemistry in health care.



Dr. Bing-Bing Qi & Prof. Jaclyn Parkinson, M. Louise Fitzpatrick College of Nursing: *A Moral Distress Mitigation Program in Undergraduate Nursing Practicum: Development and Evaluation.* Aims to develop, implement, evaluate a learning program to help nursing students recognize and learn to cope with moral distress and thus promote students' resilience in the clinical setting.



Dr. Jennifer Ross & Prof. Ann Scheve, M. Louise Fitzpatrick College of Nursing: *Transforming Learning in Essentials of Nursing Practice to Develop Clinical Judgment Skills.* Deepens nursing students' clinical judgment and prepares them to provide safe and efficient patient care upon graduation. Responds to new test items in Next Generation NCLEX (NGN) that measure students' ability of clinical judgement and decision making within evolving scenarios.



Dr. Deeksha Seth, Mechanical Engineering: *3D Printing: Design and Assessment of an Additive Manufacturing Lab for Junior Mechanical Engineering Students.* Aims to enrich the 3D printing activity conducted in a junior-level lab and develop relevant formative assessments. Provides students statistically reliable data to make informed design and manufacturing decisions and exposes them to structural simulations using finite element analysis.



Dr. Kabrindra Shakya, Geography & the Environment: *Incorporating the Experiential Learning Method in a New "Air Pollution" Lab Course.* Develops new, upper-level, undergraduate experiential lab course that fills a gap in the department's air-focused courses. Designed to strengthen students' competencies in real-life data collection, analysis, and interpretation.



Dr. Ryan Weldzius, Political Science: *Data Visualization in Political Analysis.* Enhances students' ability to create data visualizations and use quantitative data in their research. Aims to design and maintain a user-friendly App that enables students to manipulate data and deepen their proficiency in data visualization and quantitative data analysis. Addresses core competency both at the undergraduate and graduate levels.

We extend our gratitude to the members of the VITAL Minigrant Review Committee for their thoughtful, criteria-based peer review of the grant proposals and their service.

- Patricia Bradley, M. Louise Fitzpatrick College of *Nursing*
- Irene Kan, Psychological and Brain Sciences
- Mary T. Kelly, Economics
- Frank P. Maloney, Astrophysics and Planetary Science
- James C. O'Brien, Mechanical Engineering
- Bruce Pollack-Johnson, Mathematics and Statistics
- Edward Wahesh, Education and Counseling

[Link](#) to program details

All photographs were taken from Villanova University's website.

VITAL, May 2, 2022