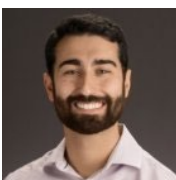




VITAL Instructional Minigrant Awards 2026-2027

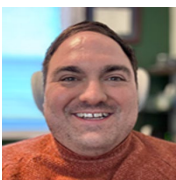
Join us in congratulating our faculty colleagues who were awarded instructional minigrants to implement their innovative, learning-focused projects.



Dr. Ryan Almeida, Geography & the Environment, CLAS:

Revising a Disciplinary Statistics Course to Develop New Student Technical Skills.

Conduct a revision that shifts the Statistics in Environmental Science course from an excel-based course to be centered on the use of R language programming, the industry standard for statistics and data visualization.



Dr. Grant Berry, Psychological & Brain Sciences, CLAS: *Extending Instruction Beyond the Classroom: Course-Aligned AI Tutors in Research Methods.*

Extend and formalize a set of custom AI-based tutoring tools that have been piloted in PSY 250, Research Methods course in Psychology. Revision builds on prior work, is grounded in student feedback and faculty expertise and reflection and aligns with the current thinking on ways to preserve learning in the age of AI.



Dr. Judith Giesberg, History, CLAS: *Using Game Scenario to Teach Contingency in Lincoln's America.*

Develop a new Core History course requirement designed to provide models of historical thinking by using the "Reacting to the Past" game. The game-based pedagogy will enhance students' critical thinking, historical empathy, evidence-based reasoning, and contingent thinking.



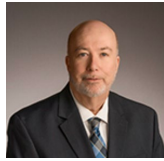
Prof. Ebony Gilley, Mathematics & Statistics, CLAS: *Math Bridge to STEM and Business.*

Create a course that serves as a bridge for students with demonstrated academic potential who are interested in majors in STEM and Business and are behind their peers in mathematical maturity. The course will be designed to strengthen foundational skills, build confidence in problem-solving, and foster a supportive community of learners.



Dr. Brian Grant, Accounting and Information Systems, VSB: *Integrating AI into Federal Income Tax: A Capstone Project on International Tax.*

Develop a capstone project that responds to the emerging role of AI in accounting and the corresponding need to teach students key competencies pertaining to the ethical, critical use of AI tools, and analysis and evaluation of AI-generated output.



Drs. Sunny Hallowell & Jim Mendez, M. Louise Fitzpatrick College of Nursing: *MEDI – Metrology Education & Dosage Instruction.*

Develop and pilot a focused AI tutoring agent to support nursing students in mastering medication calculations. Built from faculty-approved content, the agent provides unlimited practice, step-by-step reasoning, and immediate feedback. Implemented in NUR 3131 Applied Pharmacology course the AI agent aims to strengthen accuracy, confidence, and clinical readiness while reducing remediation demands.



Dr. Elizabeth Kolsky, History, CLAS: *The Unessay: An Innovative Tool for Teaching and Learning History.* Conduct a course revision to address the current context of both the impact of AI on written assignments and the role of history as an integral component of liberal arts education. Refine the pilot approach with the goal to embed the “unessay” as a major assignment that students will develop throughout the semester.



Dr. Venkat Margapuri, Computing Sciences, CLAS: *Strengthening Systems-Level Reasoning in Distributed Systems.*

Revise a core course in computing sciences designed to strengthen students’ systems level reasoning through scaffolded instruction and an inquiry-driven project structure. Centered on conceptual understanding that underscores analytical thinking, enhancing students’ ability to explain and evaluate their work.



Dr. Emily Slonecker, Psychological & Brain Sciences, CLAS: *From Lecture to Learning: A Flipped Lifespan Approach to Human Development.* Shift the Human Development course from a lecture-based format to a flipped, theme-based format that is structured around core developmental domains. Aims to deepen students’ conceptual understanding, strengthen their critical thinking, and deepen their ability to apply developmental sciences in real world contexts.



Drs. Madora Soutter & Rachel Skrlac Lo, Education & Counseling, CLAS: *Building an Elementary Education Program Two Courses at a Time.*

Conduct a collaborative redesign process focused on three areas: (1) revise two courses for the new Elementary Education major; (2) document the revision process with an emphasis on professional dispositions to create a model for future course development; and, (3) use this new model to guide faculty in the creation of other courses for the Elementary Education major.



Dr. Arash Tavakoli, Civil & Environmental Engineering, COE: *Construction Engineering CEE 4702: A Redesign Toward Holistic, Project-Based Learning in the Era of AI.* Redesign a construction engineering course focused on an integrated semester-long project that will deepen students’ understanding of project management and workflows. Grounded in contemporary, AI-enabled practices, this course revision aligns with the current teaching of construction engineering.



Dr. Luke Watson, Accounting & Information Systems, VSB:

AI-Assisted Tax-Aware Investment Portfolio Optimization. Develop a case study for MAC 8201 (Taxes & Business Strategy) in which students build competencies in AI-assisted investment planning. Designed around four core competencies (understanding AI in business, prompt design, critical review, and professional judgement) rather than around any specific AI platform, ensuring sustained pedagogical relevance.



Dr. Amy Way, Communication, CLAS: *Redesign of RJDC Course to Advanced Communication Elective.*

Redesign a former university Race, Justice & Dialogue course (RJDC) to serve as an advanced communication elective in the organizational communication specialization. Supports two department goals: (1) increase the number of advanced communication electives for regular rotation and (2) deepen the focus on social justice education.



Dr. Jiafeng Xie, Electrical & Computer Engineering, COE: *Embedding Experimental Side-Channel Analysis in Post-Quantum Cryptographic Engineering Course.*

Redesign of a Post-Quantum Cryptographic (PQC) engineering graduate course with the goal to enhance the course module on side channel analysis for PQC. Includes an extensive experimental element that engages students in physical experience and hands-on experimenting.

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 continued service.

- Dr. Paul Bernhardt, Mathematics and Statistics
- Dr. Patricia Bradley, M. Louise Fitzpatrick College of Nursing
- Dr. Irene Kan, Psychological and Brain Sciences
- Dr. Mary Kelly, Economics
- Dr. Frank Maloney, Astronomy & Astrophysics
- Dr. James O'Brien, Mechanical Engineering
- Dr. Edward Wahesh, Education and Counseling

[Program details](#)

All photographs were taken from Villanova University's website.

Issued May 2026.