BEST/QSB Research Seminar Series
Presents

An Engineering Design Approach to Research

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1:00 PM – 2:00 PM
COB 267

ABSTRACT: Traditionally engineers solve problems with multiple practical solutions while basic scientists search for the single correct answer to a research question. Increasingly, scientists and engineers work together to develop and apply novel research tools. Nevertheless, the underlying approach to solving a problem remains relatively discipline-specific. This seminar will address the benefits of structuring the search for the solution to basic science questions using engineering methodologies, in particular, engineering design. Design is the process by which engineers generate multiple creative solutions to a problem, systematically analyze those solutions, and implement the best one. Examples in the fields of systems biology, regenerative medicine, and genomics will be provided.

BIOGRAPHY: After receiving her Bachelor’s degree in Biomedical Engineering from Tulane University, Dr. Micou earned her Master’s and Ph.D. in Bioengineering from the University of California, San Diego. She was a Ruth L. Kirchstein Postdoctoral Fellow at Columbia University and an Assistant Professor of Mechanical Engineering at The Cooper Union before returning to UCSD as the first Bioengineering faculty member whose efforts were devoted entirely to the improvement of undergraduate education. She recently co-wrote a textbook, published by CRC Press/Taylor Francis, entitled A Laboratory Course in Tissue Engineering. Dr. Micou currently works in UCSD’s Office of Research Affairs to expand undergraduate research opportunities campus-wide and is the program director of a longstanding NSF-sponsored Research Experience for Undergraduates (REU) program in Regenerative Medicine, Multi-Scale Bioengineering, and Systems Biology.

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