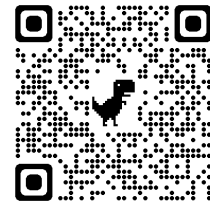


# VIRGINIA TECH DEPARTMENT OF STATISTICS COLLOQUIUM



## DEVELOPING WELL-ROUNDED STATISTICAL COLLABORATION SKILLS WITH CASE-BASED LEARNING

**MARIO A. DAVIDSON**

**APRIL 20 | 3:30 PM (ET)**

### **IN-PERSON SEMINAR**

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MEETING ID: 862 3778 0926, PASSCODE: STATSROCKS

### **Abstract**

Case-based learning has been an effective approach in healthcare education; however, the statistics field has utilized the approach sparingly. It has been used to help students determine the appropriate methodology and think critically about real-life problems. Case-based learning may also be utilized in learning exemplary behavior, professionalism, role-modeling, leadership, teamwork, inquiry, hypotheses, supervision, ethics, and advanced communication skills. We describe an innovative use of case-based learning to teach these topics in a statistical collaboration course. Cases are intended to challenge learners and require discussion of multiple, interacting social factors. The approach will be extended using a training case illustrating the pedagogy implemented in real-world analytical, collaborative situations. Important considerations related to problem identification, needs assessment, goals and objectives, educational strategies, implementation, and evaluation and feedback are reviewed.



### **Bio**

Mario Davidson is an associate professor in biostatistics at Vanderbilt University School of Medicine in Nashville, TN. He is the lead biostatistician for medical students and educators at the university. He has been instrumental in developing the research curriculum for medical students. This curriculum helps students develop a research protocol and implement a research project. He is a facilitator for multiple case-based learning courses for medical students. Dr. Davidson is the Director of Classroom Peer Reviews where he administers and trains faculty peer reviewers. He has developed one of the department's staple courses, Statistical Collaboration in Health Sciences, which focuses on communication, professionalism, and ethics. His expertise is in statistical education and his primary research areas are statistical collaboration, education, and ethics.