

**NORTH CAROLINA STATE UNIVERSITY
EDWARD P. FITTS DEPARTMENT OF
INDUSTRIAL AND SYSTEMS
ENGINEERING**

ISE 601/801 – Departmental Seminar

Friday, November 5, 2021

Zoom Only

11:00 a.m. to 12:00 p.m.

Dr. Franck Diaz-Garelli

UNC Charlotte

**Breaking the First Law of Informatics, Unintended
Consequences and How Industrial Engineering Can Help**

Abstract:

The first law of informatics states that data should only be used for the purpose it was collected. However, informaticians can break this law safely when they define a specific secondary use for it, they have enough data to provide context for the analysis and they understand how the data was collected. To illustrate each point, this seminar will look at three secondary analyses of clinical data in the context of learning health systems and the issues that challenge the validity of their analytical results. We will discuss the impact of analytical assumptions on hypothesis testing, the impact of data aggregation on analysis scalability, and the impact of data provenance on data quality. We will also discuss how Industrial Engineering methodologies can help improve data science in healthcare to improve learning health systems and health care delivery.

Bio:

Franck Diaz-Garelli, PhD is an Assistant Professor of Health Analytics and Informatics at the Department of Public Health Science in the College of Health and Human Sciences at University of North Carolina at Charlotte (UNCC). His research focuses on developing methods and generating actionable information to enable the reliable reuse of clinical data in the context of learning health systems.

His research seeks to improve care and prevention of chronic diseases such as diabetes, heart disease, hypertension and cancer. He joined UNCC in August of 2019 after completing a K-12 PRIME fellowship program for the National Institute for General Medical Science at Wake Forest School of Medicine and being part of Wake Health's Clinical and Translational Science Institute. Dr. Diaz holds a PhD in Health Informatics from the University of Texas Health Science Center at Houston's School of Biomedical informatics. He also holds a specialized Biomedical Engineering degree from Polytech' Marseille in France.