



School of Engineering Education

## An Initial Exploration of Hidden Curriculum in Engineering

<b>Event Date:</b>	January 11, 2018
<b>Speaker:</b>	Dr. Idalis Villanueva
<b>Speaker Affiliation:</b>	Assistant Professor, Engineering Education Adjunct Professor, Biological Engineering College of Engineering, Utah State
<b>Time:</b>	3:30 - 4:20 PM
<b>Location:</b>	ARMS B071
<b>School or Program:</b>	Engineering Education

The goal of this research seminar is to present the development of a survey designed to assess hidden curriculum (HC) in engineering.

HC consists of the unwritten norms, values, and beliefs that are carried among dominant social actors but that are not readily available to underrepresented populations. While HC has been explored extensively in educational, business, and psychological research, in engineering it is severely underexplored. Constructs on HC awareness, emotions, self-efficacy, and self-advocacy were purposefully selected to gain a more holistic sense of what underrepresented populations (primarily Latinx populations and to some extent African American, Asian, and other minority groups) experience in their engineering cultures and environments.

### Biography

Dr. Idalis Villanueva has a Ph.D. in Chemical and Biological Engineering from the University of Colorado-Boulder and a postdoctoral degree from the National Institutes of Health in Analytical Cell Biology. After her postdoctoral fellowship, she worked as a lecturer in the Fischell Department of Bioengineering in the University of Maryland where she developed an interest in engineering education research. For the past 6 years, Dr. Villanueva has worked on several engineering education projects where she derives from her experiences in engineering to improve outcomes for underrepresented minorities in engineering using mixed-methods approaches.



Dr. Villanueva received the 2017 NSF CAREER Award on revealing the hidden curriculum of engineering, particularly for Hispanics and Latinx engineering students and faculty. Her focus is to learn about hidden curriculum across several types of academic institutions to develop instructional interventions and policies to improve the gross underrepresentation of minorities in engineering. Dr. Villanueva has been involved with committees like the Society of Hispanic Professional Engineers where she develops training workshops for faculty around issues of hidden curriculum. Dr. Villanueva also received the 2017 award in her department for undergraduate mentor of the year. She continues to pursue her interests in engineering education and mentors many undergraduate and graduate students, whom like her, intends to use their engineering degrees to improve the outcomes of this field. Inspired by her former mentors in engineering education, she continues to inspire the next generation of engineers to do the same.

## Research