# Addressing the Need for Effective Communications Across the Engineering Curricula – A Case Study

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## Abstract

The development of written and oral communication skills is of growing importance for undergraduate engineers of all disciplines. These are skills that cannot be learned in a single technical writing course; rather they must be reinforced throughout an entire curriculum. One engineering department at Montana State University has proposed the Engineering Communications Toolkit to aid in the development of communications skills among its students. This Toolkit was distributed to freshman through senior-level students in four different courses. Following a semester of use, students and faculty member were asked to assess the Toolkit's effectiveness. Overall, the Toolkit was well received as a communications resource. Both students and faculty indicated that they would use the resource in future courses. With continued support, the Toolkit is to be integrated throughout the school's engineering curricula to help produce graduates who are better communicators and, thus, more competitive in the workforce.

## Keywords
Engineering education, effective communication, writing toolkit, assessment

## Biography

**Laura M. Stanley** is an Associate Professor in the Mechanical & Industrial Engineering Department at Montana State University and a Research Scientist at the Western Transportation Institute, where she is the Director of the Human Factors Driving Laboratory. Dr. Stanley has a B.S. in Industrial & Systems Engineering from Virginia Tech, M.S. and PhD in Industrial Engineering from Montana State University. Dr. Laura Stanley was recently selected as Program Director in the Directorate for Computer & Information Science & Engineering (CISE) at the National Science Foundation, where she will begin her service fall of 2015. Dr. Stanley's research interests include Human Factors, Transportation Safety, Learning in Virtual Environments, Human Computer Interaction, and Engineering Education. Dr. Stanley currently serves as Associate Editor for IEEE Transactions on Human-Machine Systems and serves on the scientific review committees for the Journal of the American Academy of Pediatrics, Accident Analysis & Prevention Journal, Journal of the Human Factors & Ergonomics Society, and Transportation Research Board.