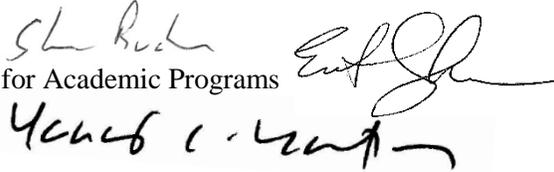# MEMORANDUM

To: The Viterbi Community

From: Steve Bucher, Director
              Erik Johnson, Vice Dean for Academic Programs
              Yannis C. Yortsos, Dean

Date: January 10, 2022

Subject: The Engineering in Society Program

Today's engineers require more than advanced technical skills. They need to understand and consider the interests of the many communities affected by their engineering practice and of possible powerful intended and unintended consequences; they require a strong knowledge of their ethical and civic responsibilities (social, philosophical, moral) in view of the rapid and powerful changes in technology they design and use; they must have a deep understanding of themselves and their place in a diverse society; and they must be able to articulate their ideas to those they impact.

To answer this call, the USC Viterbi School of Engineering has expanded its Engineering Writing Program into **The Engineering in Society Program**, an academic program of instruction and research that addresses the humanistic aspects of a holistic engineering education along with the *development of character*. Combined with the superb technical education they receive, Viterbi engineering graduates will thus fully possess two key elements of *trustworthiness*, namely competence and character.

The program's mission is to distinguish a Viterbi engineering education by purposefully connecting a student's technical work with its societal impact. These efforts will span the four years of an undergraduate education and will be anchored in courses available to all students, in extracurricular opportunities, and in modules embedded in technical courses. The program focuses on communication skills, ethics, and engineering education for undergraduates and graduates through teaching and research.

While the program will still have its foundation in its communication curriculum, the ethics curriculum for Viterbi undergraduates will be prioritized and solidified. The ethics-across-the-curriculum strategy will include: new ethics modules in a revised Freshman Academy; the new course *Ethics, Technology and Value*, which is designed for sophomores and was offered for the first time in the Fall 2021 semester; new ethics components in the required course Writing 340; and resources for capstone courses. The program will also continue the online magazine Viterbi Conversations on Ethics and will add a speaker series focused on societal impact.

Another key component is the Viterbi Ethos Project, the first phase of which is funded by the *Coalition for Life Transforming Education*. This project seeks to develop engineering students' character, identity, and purpose. Its current phase, which includes outreach projects, podcasts, and revised programming in the Freshman Academy, will provide unique experiences for Viterbi students to develop growth mindsets. Subsequent Ethos Project phases will continue to address skills and characteristics that shape trustworthy engineers.

The Engineering in Society Program embraces a holistic approach to engineering education – grounded in the liberal arts, taught through innovative practice, and integrated with Viterbi's technical curriculum. Through a humanistic approach, this program helps students better understand that engineering practice is inseparable from the examination of values, ethics, communication, and societal impact.