

**University of Southern California**  
**VITERBI SCHOOL OF ENGINEERING**

Doctor of Philosophy in Industrial and Systems Engineering  
Program Learning Objectives

The purpose of the USC Viterbi School of Engineering Doctor of Philosophy program in Industrial and Systems Engineering is to prepare graduates for research-oriented careers in leading academic institutions, and non-academic positions in the public and private sector. Graduates of the program will be particularly well prepared to lead programs involving multi-disciplinary research that incorporates elements from physical experimentation, computational exploration, and mathematically intensive model-based exploration.

Upon completion of the USC Viterbi School of Engineering Doctor of Philosophy degree in ISE, students will:

- demonstrate understanding of contemporary research and fundamental methodologies in ISE;
- demonstrate the dual ability to apply fundamental ISE methodologies to traditional and emerging industrial and governmental contexts, and to identify fundamental research directions that are informed by these contextual applications;
- be able to articulate the contributions of their research program and the relationship of these contributions to the body of research produced by the global ISE research community; and
- demonstrate the ability to teach within a core area of emphasis in ISE.