

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

Engineer in Industrial and Systems Engineering  
Program Learning Objectives

The purpose of the USC Engineer program in Industrial and Systems Engineering is to prepare students for employment with service and manufacturing organizations that require comprehensive, advanced engineering training, but not necessarily the research orientation developed by a Ph.D. student. The Engineer degree in ISE is a terminal degree. Students who complete the degree will not be considered for admission to a Ph.D. program.

Upon completion of the USC Viterbi School of Engineering Engineer degree in Industrial and Systems Engineering, students will

- demonstrate a broad understanding of analytical methods used in research of production systems design and improvement;
- be able to apply advanced analysis methods from one area of specialization within industrial and systems engineering (e.g.: mathematical programming, stochastic processes, innovative design, human factors, or engineering statistics);
- demonstrate advanced understanding of another field of engineering outside of industrial and systems engineering; and
- be able to integrate ISE methods with knowledge from another engineering field to solve complex problems in service and manufacturing operations.